

**ACER call for comments on the  
Network Code on Emergency and  
Restoration**

**Evaluation of responses**

**23 June 2015**

## **Table of Contents**

<b>1 INTRODUCTION.....</b>	<b>3</b>
<b>2 RESPONSES.....</b>	<b>3</b>
<b>ANNEX 1 - ACER.....</b>	<b>11</b>
<b>ANNEX 2 - LIST OF RESPONDENTS.....</b>	<b>12</b>

## 1 Introduction

On 31 March 2015, the Agency for the Cooperation of Energy Regulators (the 'Agency') received from ENTSO-E the Network Code on Emergency and Restoration (the 'Network Code') and its Supporting Document.

Pursuant to Article 6(7) of Regulation (EC) No 714/2009, the Agency is to provide a reasoned opinion on the Network Code within a period of three months. This opinion shall assess compliance of the Network Code with the Framework Guidelines on Electricity System Operation adopted by the Agency on 2 December 2011<sup>1</sup>.

In order to ensure transparency and involvement of stakeholders in the process, on 1 April 2015 the Agency invited all interested stakeholders to express in writing their views on the Network Code by 29 April 2015.

## 2 Responses

By 29 April 2015, 16 stakeholder responses were received, all of which are now published on the Agency's website<sup>2</sup>. The Agency would like to take this opportunity to again thank those stakeholders for providing feedback to the Agency's call for comments.

The Agency recognises the diversity in the nature of stakeholders' responses on the Network Code, including positions, requests and alternative proposals.

By inviting stakeholders to express views on the Network Code, the Agency aimed at informing the opinion drafting. The purpose of this document is to respond stakeholders on the main policy option issues taken in the development of the Network Code. The Agency limited its answers to major concerns on the Network Code and to those topics, for which the Network Code's Supporting Document was lacking clarity or details. Moreover, the Agency abstained from commenting on the mere statements of position from stakeholders or minor drafting issues.

Where relevant, the Agency asked ENTSO-E to provide further explanations on detailed technical issues. Annex 3 to this document contains an ENTSO-E feedback that can be understood as a supplement to the Supporting Document.

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[http://www.acer.europa.eu/Official\\_documents/Acts\\_of\\_the\\_Agency/Framework\\_Guidelines/FG%20on%20Electricity%20System%20Operation/FG-2011-E-003\\_02122011\\_Electricity%20System%20Operation.pdf](http://www.acer.europa.eu/Official_documents/Acts_of_the_Agency/Framework_Guidelines/FG%20on%20Electricity%20System%20Operation/FG-2011-E-003_02122011_Electricity%20System%20Operation.pdf)

2 [http://www.acer.europa.eu/Electricity/FG\\_and\\_network\\_codes/Pages/Call-for-comments-on-the-Network-Code-on-Emergency-and-Restoration.aspx](http://www.acer.europa.eu/Electricity/FG_and_network_codes/Pages/Call-for-comments-on-the-Network-Code-on-Emergency-and-Restoration.aspx)

Respondents' views	ACER's views
<p>A few stakeholders raised the issue of the lack of the EU dimension of the Network Code.</p>	<p>Agree.</p> <p>The Network Code provides for a consultation with neighbouring TSOs and the other TSOs within the same Synchronous Area in the design phase of the TSO's System Defence Plan and Restoration Plan as set out in Article 9(1) and Article 21(1), respectively. Additionally, when designing its Restoration Plan, Article 6(5) requires each TSO to check the consistency of its measures with measures from plans of other TSOs within its Synchronous Area. The Agency believes that such consultations and consistency checks would be more efficiently conducted at the regional and inter-regional levels by regional security coordination bodies.</p> <p>Moreover, taking into account the conclusions from the Florence Forum in November 2014 and the Commission's plans for the Energy Union, the Agency recommends investigating and identifying other areas within the scope of the Network Code where a closer regional coordination via regional security coordination bodies would be efficient, effective and adding value to the rules.</p>
<p>Several stakeholders have provided the following comments related to market interactions:</p> <ol style="list-style-type: none"> <li>1. Stakeholder involvement related to market interactions should be performed within the market-related stakeholder committees;</li> <li>2. The relationship between suspension of market activities and the notions of Emergency Situation and Force Majeure in Regulation EC 714/2009 should be explained;</li> <li>3. The network code should include reporting and transparency requirements on the past suspensions of market activities;</li> <li>4. The network code should include additional obligations on development and regulatory approvals of the terms and conditions or methodologies related to the suspension of market activities;</li> <li>5. The network code should define an exhaustive list of conditions for suspension and restoration of market activities which should be expanded with some additional other</li> </ol>	<p>Partly Agree.</p> <p>These specific comments have been addressed by the Agency in the following way:</p> <ol style="list-style-type: none"> <li>1. The network codes do not specify how the Agency should organise stakeholders' involvement thus allowing the organisation as proposed by stakeholders. Moreover, where topics would overlap between two or more stakeholder committees, the Agency does not exclude to convening joint committee meetings.</li> <li>2. The Agency understands that the notion of Emergency Situation and Force Majeure in Regulation EC 714/2009 is slightly different from the notion of suspension of market activities. For example, while Emergency Situation and Force Majeure provide TSOs the option to curtail the already allocated/nominated cross-border capacity, the suspension of market activities only provides TSOs with the option to stop allocating new cross-border capacities.</li> <li>3. The Agency will suggest to the European Commission that these additional reporting</li> </ol>

Respondents' views	ACER's views
<p>conditions;</p> <p>6. The network code should include additional rules aiming to harmonise the settlement rules and principles for periods when market activities have been suspended;</p> <p>7. The network code should oblige the TSOs to suspend the market activities when conditions are fulfilled instead of simply giving them the option to do so;</p> <p>8. The network code should ease the requirements on information given by affected entities to their customers.</p>	<p>requirements are included in the Network Code before it enters into Comitology.</p> <p>4. The Agency will suggest to the European Commission that these additional requirements are included in the Network Code before it enters into Comitology.</p> <p>5. The Agency recognises that lack of harmonisation of these conditions may have a detrimental effect on the functioning of some segments of the Internal Energy Market, such as security of supply and generation adequacy. In light of the ongoing European Commission's work aiming at reinforcing the legislative framework for the security of supply for electricity and at developing a more effective, flexible market design which should go together with enhanced regional cooperation, the Agency believes that the market interaction provisions, in particular the rules and conditions for suspension and restoration of market activities, may benefit from a closer examination and amendments to reflect the ambition of the EU to create an Energy Union.</p> <p>6. See the comment No. 5.</p> <p>7. While the Agency sees the benefit of this suggestion, it is concerned that it may lead to some unnecessary suspensions of market activities in cases where conditions are fulfilled for a very short period and where TSOs could mitigate the situation without the suspension of market activities. See also the comment No. 5.</p> <p>8. The Agency will suggest to the European Commission that these changes are included in the Network Code before it enters into Comitology. In particular, it seems that the Network Code must find a more proportional requirement and a better balance between the notifications and publications of suspension of market activities.</p> <p>Other wording or editorial suggestions from stakeholders will be proposed by the Agency to the European Commission before the Network Code enters Comitology.</p>
<p>Several respondents raised concerns regarding the cooperation and coordination provisions in Article 6.</p> <ul style="list-style-type: none"> <li>- TSO unilateral decision making should be replaced by a TSO-DSO agreement in some specific areas, e.g. design of the defence/restoration plans. If a TSO makes</li> </ul>	<p>Disagree.</p> <p>The Agency understands that the Defence and Restoration Plans affect almost every grid user (DSOs, Power Generating Modules, HVDC operators, ...) and that it is the TSO's responsibility to render them non-discriminatory, efficient and effective. It is to this end that each TSO has to notify at least the elements listed in the Network Code to the national regulatory authority</p>

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<p>a decision it should be approved by the competent national authorities;</p> <ul style="list-style-type: none"> <li>- Reinforce the consultation principles as to not allowing situations that could lead to violation of the constraints given in Article 6(4).</li> </ul>	<p>("NRA") or other competent authority if specified by national law, after entry into force of the Network Code and every time significant changes are made.</p> <p>The regulatory oversight regime provided in the Network Code is to be read in line with Directive 2009/72/EC and Regulation (EC) No 714/2009. Furthermore, Recital (6) and Article 4 clarify that the Network Code does not preclude Member States from providing for the approval by national regulatory authorities or other competent authorities of other relevant terms and conditions or actions necessary to ensure operational security other than the ones already listed in Article 4 of the Network Code. The Network Code ensures the necessary transparency for all designs and plans, thus allowing NRAs or other competent authorities to intervene, if appropriate and where needed. In addition, Directive 2009/72 /EC already ensures an appeal route with the NRA.</p> <p>The Agency finds that Article 6 is appropriately addressing consultation and coordination aspects; consultation is resorted to each time when a decision has to be made either before or in real time, taking into account possibilities and constraints from different parties. Coordination on the other hand is resorted to each time, in addition to the decision by the TSO, when actions are to be executed in real time by several parties. In addition, paragraph 4 of Article 6 prescribes that each TSO and DSO shall respect technical, legal, personal safety and security constraints.</p>
<p>A few respondents expressed their concerns with regard to communication voice/data systems including their redundancy and backup power capability, and proposed that these are installed by the TSOs.</p>	<p>Partly agree.</p> <p>The regulatory approval of the TSOs' common proposal regarding key organisational requirements, roles and responsibilities in relation to the data exchange, as well as, the data exchange provisions in the Network Code on Operational security (in line with the Agency's Opinion No. 10/2013 of 28 May 2013) shall allow for ensuring the necessary balance between the Network Code and the NC OS.</p> <p>The Supporting Document justifies the necessity of redundant communication systems, including their backup power supply, relevant to the exchange of information for operating or restoring the system. Proper critical tools and facilities including communication systems and their backup power supply of TSOs, DSOs, Significant Grid Users and Restoration Service Providers have to be available in any system state and to enable the Defence Plans and System Restoration Plans.</p> <p>However, the Agency understands that these features are to some extent already in place today</p>

Respondents' views	ACER's views
	<p>but not harmonised to the degree that the Network Code now prescribes. It is in this regard that the Agency would like to see a more exhaustive elaboration of the state-of-play and some insight into how the relevant provisions of the Network Code will be implemented, in particular in the area of the installation and maintenance of data and voice communication systems, including on the detailed assessment on which system elements are affected by the requirement of backup power supply that needs to be carried out as mentioned in the Supporting Document on page 48. We suggest these explanations, notwithstanding potential improvements to the Network Code, become part of the Supporting Document.</p>
<p>A few respondents commented on the lack of consistency with other network codes, e.g. definition of a Significant Grid User.</p>	<p>Agree.</p> <p>The Network Code is closely connected to the rules which are being developed in other network code areas pursuant to Article 8(6) of Regulation (EC) No 714/2009. It is essential that this Network Code is consistent and coherent with these other rules. In particular, it must be consistent with the Network Code on Operational Security (the 'NC OS'), the Network Code on Operational Planning and Scheduling (the 'NC OPS'), the Network Code on Load-Frequency Control and Reserves (the 'NC LFC'), the Guideline on Capacity Allocation and Congestion Management 'GL CACM', the Network Code on Electricity Balancing (the 'NC EB'), the Network Code on Requirements for Grid Connection Applicable to all Generators (the 'NC RfG') the Network Code on Demand Connection (the 'NC DC') and the Network Code on HVDC Connections (the 'NC HVDC').</p> <p>The Agency expects that the Commission, when preparing the network codes for adoption, will bring provisions of the Network Code in line with the equivalent provisions in other technical network codes (NC OS, NC OPS and NC LFC).</p>
<p>Several stakeholders raised views on the provisions regarding automatic under-Frequency control scheme (also LFDD – low frequency demand disconnection), over-Frequency control scheme and on the related justification:</p> <ol style="list-style-type: none"> <li>1. Lack of justification;</li> <li>2. Underestimated efficiency of the existing LFDD schemes;</li> </ol>	<p>Partly Agree.</p> <p>These specific comments have been addressed by the Agency in the following way:</p> <ol style="list-style-type: none"> <li>1. ENTSO-E provided and publicly consulted stakeholders on the exhaustive justification of harmonised LFDD provisions which include a technical study.</li> <li>2. The Agency understands that harmonised quality targets are required to ensure during major system events a well-balanced influence on end consumers across entire</li> </ol>

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<p>3. Non-homogenous activation of LFDD between substations vs retrofit in five years;</p> <p>4. Lack of harmonisation of an over-Frequency control scheme.</p>	<p>Synchronous Area. Moreover, the existing non-harmonised LFDD schemes are deemed inferior to the proposed harmonised scheme considering a broad range of possible disturbance scenarios accompanying the expected growth of the penetration of RES;</p> <p>3. In light of the existing good practices in several Member States of combination of 2-4 steps for each substation/relay to reach a global target of 6 steps (or more) in a wider area, the Agency is not convinced there is a tangible risk in system operation provided that the designs and implementations of such strategies are thorough and appropriate. In addition, the benefits of such design overweight the associated costs;</p> <p>4. The Supporting Document explains that the over-Frequency control scheme is currently not covered by practices in Europe, and as such providing accurate and harmonized requirements in the Network Code is not feasible at the time of its drafting. The Supporting Document also suggests that TSOs of each Synchronous Area shall perform a study and implement the scheme according to the results of this study. The Agency also understands that activities in this direction are already taking place at the level of ENTSO-E. However, the wording of Article 15, that deals with the automatic over-Frequency control scheme of the System Defence Plans, does not entirely reflect these plans as it merely requires the definition of TSOs parameters by each TSO in consultation with other TSOs of its Synchronous Area. The Agency suggests that ENTSO-E's plans regarding the over-Frequency control scheme of the System Defence Plans are elaborated further in the Supporting Document and that they are reflected in the operative part of the Network Code if so appropriate.</p>
<p>Regarding Energy Storage, several respondents asked for recognition of benefits, which can be brought about by the innovative energy storage technologies.</p>	<p>Agree.</p> <p>Articles 13(6) and 14(3) suggest disconnection of Energy Storage acting as load before activation of the automatic Low Frequency Demand Disconnection by the TSO. The Agency believes that, as currently drafted, these provisions unintentionally prevent the use of these flexible devices for the benefit of the interconnected systems. For example, such benefits could be delivered by rapid switching between load and generation modes or damping of system oscillations. The Agency suggests improving the Network Code so as not to hamper the emerging energy storage technologies from entering ancillary service markets.</p>

Respondents' views	ACER's views
	<p>Moreover, apart from pump-storage power generating modules, energy storage as such is not covered in the grid connection network codes (NC RfG, NC DC and NC HVDC) and the Commission might want to take a holistic approach when tackling this growing area that could undoubtedly help considerably in the transition to a low-carbon society by providing necessary flexibility to cope with the variable input from renewable energy sources.</p>
<p>Several respondents raised various concerns with regard to the possibility to impose a mandatory provision of defence and restoration services through Member States' national legal frameworks. One stakeholder mentioned that this could affect cross-border balancing markets whereas another stated that this could hinder the development of the DSR at residential level.</p>	<p>Disagree.</p> <p>The Network Code is deemed compliant with the principles of subsidiarity and proportionality. National legal frameworks concerning the security of supply, including the interrelated restoration and defence plans, inter alia depend on the energy mix, which remains a national competence, and up to a decision of Member States. Moreover, the provision of restoration and defence services remains geographically confined to the TSO's Control Area; therefore, the Network Code does not foresee any cross-border trade of these services. Regarding the development of the DSR at residential level, it is pursuant to Directive 2009/72/EC that the Member States shall ensure the implementation of intelligent metering systems that shall assist active participation of consumers in the electricity supply market. However, the implementation of those metering systems may be subject to an economic assessment of all the long-term costs and benefits to the market and the individual consumer or to an assessment regarding the form of intelligent metering which is economically reasonable and cost-effective, as well as regarding the timeframe, which is feasible for their distribution. It is reasonable to expect that the costs and benefits behind policy options regarding the restoration and defence plans constitute an integral part of those economic assessments by Member States. Moreover, to ensure the plans are non-discriminatory, efficient and effective, each TSO has to notify at least the elements listed in the Network Code to the NRA or other competent authority if specified by national law, after entry into force of the Network Code and upon significant changes.</p> <p>Nonetheless, the Agency understands that the Commission may, while paving the way for the Energy Union, choose to investigate and identify other areas within the scope of the Network Code where a closer regional coordination would be efficient, effective and adding value to the rules.</p>
<p>One stakeholder requested for the opening of the interconnectors to be conditional to duly respecting contracted generation capacity or other resources for adequacy purposes with</p>	<p>Disagree.</p>

Respondents' views	ACER's views
the neighbouring TSO.	The Supporting Document appropriately addresses treatment of Capacity Remuneration Mechanisms. It is also worth noting that GL CACM covers firmness in the event of force majeure or emergency situations (Article 69).
Several stakeholders urged for complementing the provisions where an instruction or disconnection is possible directly (Article 13(3, 4), 18(2, 3), 20(1), etc.) with an additional notification to DSOs by TSOs.	Agree. Please refer to ENTSO-E response in Annex 3.
Several stakeholders asked for the Agency to set up and chair Stakeholder Committees.	Agree. The Agency understands this is a consistency issue and that it is the Commission's intent to treat all technical network codes in the same way.
Several stakeholders called for mitigation of liabilities associated to the implementation of the testing provisions (Articles 41 to 49) and exclusion of related interruptions from regulatory benchmarking.	Disagree. Regulatory benchmarking and DSOs' liabilities are out of scope of this Network Code and are subject to national legal frameworks.
Several stakeholders have asked for a derogation process for TSOs and DSOs.	Disagree. The Framework Guidelines explicitly ensure that no derogation is possible for system operators in the Network Code (except for islands and upon a justification by ENTSO-E).

## **Annex 1 - ACER**

The Agency for the Cooperation of Energy Regulators (ACER) is a European Union body established in 2010. ACER's mission is to assist National Regulatory Authorities in exercising, at Community level, the regulatory tasks that they perform in the Member States and, where necessary, to coordinate their action. The work of the ACER is structured according to a number of working groups, composed of ACER staff members and staff members of the national energy regulatory authorities. These working groups deal with different topics, according to their members' fields of expertise.

This document was prepared by the ACER System Operation Work-stream.

## Annex 2 - List of Respondents

No	Organisation	Type
	<b>ELEXON</b>	Market operator
	<b>Electricity North West</b>	Energy company
	<b>Associations representing DSOs - CEDEC, EDSO, EURELECTRIC, GEODE</b>	Associations
	<b>Renewable Energy Systems Limited (RES Group)</b>	Energy company
	<b>Electricity Storage Network</b>	Association
	<b>Citizens Advice's</b>	NGO
	<b>The European Association for Storage of Energy</b>	Association
	<b>European Committee of Domestic Equipment Manufacturers (CECED)</b>	Association
	<b>EDF</b>	Energy company
	<b>SEDC</b>	Association
	<b>(BDEW) German Association of Energy and Water Industries</b>	Association
	<b>ENEL</b>	Energy company
	<b>RWE Supply &amp; Trading GmbH</b>	Energy company
	<b>EFET</b>	Association
	<b>EURELECTRIC-VGB</b>	Associations
	<b>Energy-UK</b>	Association

### **Annex 3 - ENTSO-E response**

ENTSO-E response as referred to in Section 2:

*To ensure system security it is essential that instructions given by the TSO to SGUs are acted on without delay. This means that for SGUs connected to a distribution network, the TSO's instructions could go directly to the SGU to avoid delays. However, DSOs concerns about losing control of their networks are understood; ENTSO-E believes that coordination of TSOs and DSOs is important to avoid congestions and other issues in distribution networks with impact to the overall security of supply.*

*Coordination of TSOs with involved parties including DSOs, is a general principle for the activation of System Defence Plan and Restoration Plan procedures defined in Art 11(1) and 23(1). As described in Art 6, the coordination process includes contact with involved parties and explanations on the measure to be activated as the first step. It must be noted that in NC ER, the term "procedures" covers measures requesting manual activation as opposed to the term "schemes" that covers automatic actions. Therefore, information to DSOs is an obligation for any activation impacting DSOs' networks. The precise description of the coordination process with relevant parties for each specific measure to be activated is part of the System Defence Plan and Restoration Plan design as stipulated in NC ER –Art 9(5) and 21(6).*

*For Art 10(2) and 22(2) the notification to DSOs is explicitly mentioned because these articles concern implementation (not activation) of Plans and therefore the general principle mentioned above does not apply.*