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**RECOMMENDATION OF THE AGENCY FOR THE COOPERATION OF ENERGY
REGULATORS No 01/2013**

of 14 March 2013

**ON THE NETWORK CODE ON CAPACITY ALLOCATION AND
CONGESTION MANAGEMENT**

THE AGENCY FOR THE COOPERATION OF ENERGY REGULATORS,

HAVING REGARD to Regulation (EC) No 713/2009 of the European Parliament and of the Council of 13 July 2009 establishing an Agency for the Cooperation of Energy Regulators¹, and, in particular, Articles 6(4) and 17(3) thereof;

HAVING REGARD to Regulation (EC) No 714/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the network for cross-border exchanges in electricity and repealing Regulation (EC) No 1228/2003², and, in particular, Article 6(9) thereof;

HAVING REGARD to the favourable opinion of the Board of Regulators of 13 March 2013, delivered pursuant to Article 15(1) of Regulation (EC) No 713/2009,

WHEREAS:

- (1) On 27 September 2012, ENTSO-E submitted to the Agency the Network Code on Capacity Allocation and Congestion Management (the 'Network Code'), accompanied by a supporting document "Network Code on Capacity Allocation & Congestion Management (CACM), Explanatory Document" (the "supporting document").
- (2) On 12 December 2012 the Agency provided its opinion on the Network Code³ (the 'Opinion'). The Opinion, while acknowledging that the draft Network Code would help facilitate market integration as well as non-discrimination, effective competition and the efficient functioning of the market, concluded that in some specific areas the Network Code was not in line with the Framework Guidelines on Capacity Allocation and Congestion Management (CACM) for Electricity⁴ (the 'Framework Guidelines') of 29 July 2011. Those areas concerned entry into force, capacity calculation, redispatching and countertrading arrangements, regulatory approval procedures, assessment of bidding zones, intraday regional auctions, definition of common timetable for day-ahead market, compensation in case of force majeure and emergency situation, cost recovery,

¹ OJ L 211, 14.8.2009, p.1

² OJ L 211, 14.8.2009, p.15

³ Opinion on the Network Code on Capacity Allocation and Congestion Management, ACER Opinion No. 10/2012

⁴ FG-2011-E-002

objectives of the Network Code, as well as consultation and transparency. In the Opinion, the Agency invited ENTSO-E to address the specific concerns expressed in the Opinion and to resubmit an amended Network Code to the Agency.

- (3) In the Opinion, the Agency did not address the provisions of the Network Code, which are related to the governance of the day-ahead and intraday market coupling.
- (4) On 8 February 2013, ENTSO-E informed the Agency that, in the interest of delivering the Internal Energy Market as quickly as possible, it will not be using its right to resubmit the Network Code. While ENTSO-E acknowledged that in most areas addressed in the Opinion the Network Code might benefit from further refinements, it expressed concerns about the possible amendments in few other areas,

HEREBY RECOMMENDS:

The adoption of the Network Code by the European Commission after having:

1. introduced in the Network Code the amendments listed in the Annex to this Recommendation;
2. complemented the Network Code with the envisaged guidelines on the governance of day-ahead and intraday market coupling and reviewed accordingly the Network Code provisions that relate to the governance of day-ahead and intraday market coupling.

This Recommendation is addressed to the European Commission.

The Network Code and the supporting documents received from ENTSO-E are attached to this Recommendation for information purposes.

Done at Ljubljana on 14 March 2013.

For the Agency:


Alberto Pototschnig
Director

Annex: Specific amendments to the Capacity Allocation and Congestion Management Network Code

I. Amendments with respect to entry into force and application

The Network Code defines deadlines for several terms and conditions or methodologies that shall be developed after the Network Code enters into force. In cases where these terms and conditions or methodologies are essential for the completion of the Internal Electricity Market by 2014, the Network Code should provide fixed deadlines that would enable the regulatory approval and application of these terms and conditions or methodologies by the end of 2014. Specifically:

1. Article 18(1) should be amended to read:

No later than 30 June 2014, all System Operators shall develop a proposal for a Common Grid Model methodology.

2. Article 22(1) should be amended to read:

No later than 30 June 2014, all System Operators of each Capacity Calculation Region shall develop a proposal for a common coordinated Capacity Calculation Methodology.

3. Article 32(1) should be amended to read:

No later than 31 December 2014, all System Operators shall establish a European Merging Function and define rules for the operation of the European Merging Function.

4. Article 32(2) should be amended to read:

No later than 31 December 2014, all System Operators of each Capacity Calculation Region shall establish the Coordinated Capacity Calculator(s) and define rules for the operation of the Coordinated Capacity Calculator(s).

5. Article 43(1) should be amended to read:

No later than 31 March 2014:

- (a) all System Operators shall jointly provide Market Coupling Operator(s) with a set of requirements related to efficient Capacity Allocation to enable the development of the Price Coupling Algorithm and/or the development of the Continuous Trading Matching Algorithm. These requirements shall specify the functionalities and performance, including deadlines for the delivery of market coupling results and details of the Cross Zonal Capacity and Allocation Constraints which shall be respected; and*
- (b) all Nominated Electricity Market Operators shall jointly provide Market Coupling Operator(s) with a set of requirements related to efficient Matching to enable the development of the Price Coupling Algorithm and/or the Continuous Trading Matching Algorithm.*

6. Article 43(3) should be amended to read:

No later than three months after the provision of the requirements pursuant to paragraph 1, Market Coupling Operator(s) shall develop a proposal for a single Price Coupling Algorithm and/or a proposal for a Continuous Trading Matching Algorithm which meets the requirements specified by System Operators and Nominated Electricity Market Operators in accordance with paragraph 1 and the objectives of this Network Code and of the Price Coupling Algorithm as specified in Article 45 and of the Continuous Trading Matching Algorithm as specified in Article 59 of this Network Code. This proposal shall include the latest time at which Nominated Electricity Market Operators shall submit received Orders to Market Coupling Operator(s).

7. Article 50(1) should be amended to read:

No later than 30 June 2014, all System Operators shall develop a proposal for a common methodology to be used in calculating Scheduled Exchanges resulting from the Day Ahead Market.

8. Article 64(1) should be amended to read:

No later than 30 June 2014, all System Operators shall develop a proposal for a common methodology to be used in calculating Scheduled Exchanges following the Matching of Orders in the Intraday market.

9. Article 76 should be amended to read:

No later than 30 June 2014, all System Operators shall develop a proposal for a single Day Ahead Firmness Deadline, which shall not be shorter than half hour before Gate Closure Time of the Day Ahead Market.

10. Article 81(1) should be amended to read:

No later than 30 June 2014, all System Operators shall develop a proposal for a Methodology for sharing Congestion Income.

11. Article 97(2) of the Network Code implies that the application of some chapters of the Network Code is conditioned by the development and approval procedures, defined in these same chapters, hence there is essentially no obligation for the application of the provisions contained in these chapters. The Agency understands the intention behind this paragraph i.e. to specify that some obligations defined in the Network Code shall apply only after the approval of some terms and conditions or methodologies. However, since a similar provision is defined in Article 8(11), the Agency recommends Article 97(2) to be deleted.

The above recommendation is based on the expectation that the Network Code will enter into force at the beginning of 2014. Nevertheless, if the adoption of the Network Code is delayed, the Agency advises the proposed deadlines to be modified accordingly. Furthermore, the points addressed above focus only on those terms and conditions or methodologies, which are

essential for the completion of the Internal Market in Electricity by 2014. To ensure consistency among the deadlines applied in the Network Code, the Agency advises other deadlines defined in the Network Code to be crosschecked. In the light of the above proposals, harmonisation of the format of deadlines in the Network Code could also be considered.

II. Amendments with respect to description and coordination of capacity calculation

1. The Network Code should provide consistent set of definitions related to capacity calculation:

- a) The following definitions from the Network Code should be amended in order to ensure consistency throughout the Network Code, including the proposed amendments in this Annex and to ensure consistency with the draft Network Code on Operational Security.

***Cross Zonal Capacity** means the capability of the Interconnected System to accommodate energy transfer between Bidding Zones. It can be expressed either as a Coordinated Net Transmission Capacity value or Flow Based Parameters, and takes into account Operational Security Limits;*

***Flow Based Parameters** mean the Remaining Available Flows on Critical Network Elements with associated Power Transfer Distribution Factors;*

***Operational Security Limits** means the acceptable operating boundaries: thermal, voltage, short-circuit current, frequency and dynamic stability limits;*

***Reliability Margin** means the margin reserved on the permissible loading of a Critical Network Element to cover against uncertainties between a capacity calculation timeframe and real time, taking into account the availability of Remedial Actions;*

- b) The following definitions from the Network Code should be added to provide sufficient clarity and level of detail on capacity calculation in line with the requirements from the Framework Guidelines.

***Base Case Flows** are the flows on Critical Network Elements resulting from power flow calculation on a Common Grid Model taking into account the Contingencies relevant for Capacity Calculation;*

***Contingency** means the identified and possible or already occurred Fault of an element within or outside a TSO's Responsibility Area, including not only the transmission system elements, but also Power Generating Facility Modules Facilities, Demand Facilities and distribution network elements if relevant for the transmission system Operational Security;*

***Remaining Available Flow** means the maximum additional flows allowed on Critical Network Elements as a consequence of the changes in Net Positions resulting from Capacity Allocation in Capacity Calculation Region;*

Scenario means a specific and expected network situation or conditions with respect to generation, load, topology and power flows;

2. The Network Code should provide further details on capacity calculation timeframes. In particular, the Network Code should specify that capacities shall be calculated for each market time period and that the latest available information shall be applied in capacity calculation. Article 13 should be amended to read:

- 1. Capacity Calculation shall produce results for at least the following Capacity Calculation Timeframes:*

- (a) Day Ahead; and*
- (b) Intraday.*

- 2. Unless stated otherwise, the requirements of this Network Code shall apply to the Capacity Calculation Timeframes defined in paragraph 1.*

- 3. For Day Ahead Timeframe Capacity Calculation shall produce unique results for each Day Ahead Market Time Period. Each reassessment of Capacity Calculation in Intraday shall produce unique results for each remaining Intraday Market Time Period.*

- 4. For the Day Ahead Timeframe the Capacity Calculation Process shall not start before 15:00 Market Time D-2 and shall be based on the latest available information.*

- 5. All System Operators of each Capacity Calculation Region shall ensure that Cross Zonal Capacity is reassessed sufficiently often within the Intraday Timeframe based on the latest available information. The frequency of this Intraday reassessment shall be guided by the principles of cost-benefit analysis and System Security.*

3. The Network Code should be more specific with regard to the different elements of the proposal for capacity calculation methodology. In particular, the methods for calculating capacity calculation inputs should be described in this proposal. Furthermore, capacity calculation methodology should – pursuant to Article 34 of the Network Code - also provide details on different steps of capacity calculation approach. Article 22(2) should be amended to read:

The common coordinated Capacity Calculation Methodology for a Capacity Calculation Region shall meet the objectives of this Network Code and shall contain at least the following for each Capacity Calculation Timeframe:

- (a) Methods for calculation of Capacity Calculation inputs:*
 - Method for calculation of Reliability Margins in accordance with Article 25 and Article 26;*
 - Method and criteria for determination of Contingencies relevant for Capacity Calculation;*
 - Method and criteria for determination of Operational Security Limits and Critical Network Elements in accordance with Article 27;*

- *List of Allocation Constraints that may be applied in the Capacity Calculation Region and their justification in accordance with Articles 28;*
- *Method for determination of the Generation Shift Keys in accordance with Article 29; and*
- *Method for determination of Remedial Actions to be considered in Capacity Calculation in accordance with Article 30.*

(b) Detailed description of Capacity Calculation Approach:

- *Capacity Calculation Approach to be applied pursuant to Article 24;*
- *mathematical description of the applied Capacity Calculation Approach with different Capacity Calculation inputs;*
- *mathematical description of calculation of Power Transfer Distribution Factors, Maximum Flows, Remaining Available Flows, adjusted Base Case Flows and flows resulting from already allocated or nominated Cross Zonal Capacities pursuant to Article 34;*
- *rules for avoiding undue discrimination between internal and Cross Zonal exchanges;*
- *rules to treat, where appropriate, previously allocated or nominated Cross Zonal Capacities;*
- *rules for adjustment of Remaining Available Flows or Power Transfer Distribution Factors due to Remedial Actions to be considered in Capacity Calculation;*
- *rules to calculate the Cross Zonal Capacities on the Bidding Zone Borders from Remaining Available flows and Power Transfer Distribution Factors when using the Coordinated Net Transmission Capacity Approach pursuant to Article 34; and*
- *rules to share the Remaining Available Flow between the different Capacity Calculation Regions prior to Capacity Allocation, where appropriate.*

(c) Validation of Cross Zonal Capacity in accordance with Article 31.

4. As the Agency recommends amending Article 34 of the Network Code to include more detailed requirements with regard to the regional capacity calculation process, this may pose a risk that, for some unforeseen reason, these requirements could not be respected in all capacity calculation regions. Thus, the Agency also recommends providing flexibility to system operators to modify some elements of capacity calculation process subject to requirements pursuant to Article 34 if properly justified and demonstrated by system operators in their proposal for capacity calculation methodology. Article 22 should be complemented with additional paragraph that reads:

All System Operators of each Capacity Calculation Region may propose to modify some elements of Capacity Calculation Process subject to requirements pursuant to Article 34. Such modifications may be approved by the National Regulatory Authorities of a Capacity Calculation Region, only when the proposal for Capacity Calculation Methodology includes the analysis demonstrating that specific requirements pursuant to Article 34 cannot be applied or are detrimental to the objectives of this Network Code pursuant to Article 4.

5. The Network Code should define the operational security constraints that are consistent with operational security limits in the draft Network Code on Operational Security. For this reason, the Agency recommends the use of the term “operational security limits” throughout the whole Network Code. Furthermore, the Network Code should provide obligations on system operators to define critical network elements and basic criteria for their application. Such criteria will provide greater transparency on the exact technical limitations for cross border trade and would allow for monitoring of the performance of capacity calculation process. Article 27 should be amended to read:

1. Each System Operator shall define the following Operational Security Limits for Capacity Calculation:

- (a) thermal limits of the Critical Network Elements; and*
- (b) voltage limits, imposing admissible substation voltage ranges.*

2. Each System Operator shall be entitled to define additional Operational Security Limits. Where appropriate, such limits may include:

- (a) frequency and dynamic stability limits;*
- (b) short circuit current limits.*

3. Each System Operator shall define Critical Network Elements for Capacity Calculation. Critical Network Elements may be applied in Capacity Calculation only when changes in Bidding Zone Net Positions significantly influence these Critical Network Elements.

4. Each System Operator shall regularly and at least once a year update and review the Critical Network Elements and Operational Security Limits used for Capacity Calculation using the latest available information.

6. The Network Code should provide greater clarity of the reasons why system operators would have the possibility to introduce additional constraints in capacity allocation in addition to cross zonal capacities. Thus, the Network Code should clearly define what types of allocation constraints are allowed and for which reason. Article 28 should be amended to read:

1. The determination of Allocation Constraints required by the Capacity Calculation Methodology developed pursuant to Article 22 may contain the use of:

- (a) Constraints needed to maintain the transmission system within Operational Security Limits and cannot be translated to Maximum Flows on Critical Network Elements; or*
- (b) Constraints intended to increase the Social Welfare, which may include but are not limited to transmission losses.*

2. Each System Operator shall regularly and at least once a year update and review the Allocation Constraints and Operational Security Limits used for Capacity Calculation using the latest available information.

7. The Network Code should set out general principles for defining the reliability margins. The reliability margins are inherently connected with the risk related to uncertainties of electricity flows on critical network elements. Thus, the Network Code should provide basic framework for calculating this uncertainty on the level of critical network elements and not on the level of cross zonal capacities. Article 25(2) and (3) should be amended to read:
 2. *The Reliability Margin shall be calculated for Critical Network Elements and shall be based on estimated probability distribution of the deviations between expected power flows at the time of Capacity Calculation and realised power flows in real time. In methodology for calculation of Reliability Margins pursuant to Article 22(1)(a), System Operators shall define which uncertainties are taken into account in calculating the probability distribution. In particular, these uncertainties shall consider deviations caused by:*
 - (a) *unintended deviations of physical electricity flows within a Market Time Period caused by the regulation of electricity flows within and between Control Areas to maintain a constant frequency; and*
 - (b) *uncertainties which could affect Capacity Calculation and which could occur between the Capacity Calculation Timeframe and real time, for the Market Time Period being considered.*
 3. *System Operators shall regularly and at least once a year update and review the probability distribution used for calculation of Reliability Margins on Critical Network Elements using the latest available information.*
8. The Network Code should define general principles for sizing the reliability margins and the risk level applied. In particular, the confidence level for sizing the reliability margins should be harmonised to the maximum degree possible. Article 26 should be amended to read:
 1. *For each Capacity Calculation Timeframe, each System Operator shall define the size of the Reliability Margin on its Critical Network Elements based on the estimated probability distribution specified in Article 25 and based on the applied confidence level.*
 2. *All System Operators of Capacity Calculation Region shall harmonize the confidence level used for sizing the Reliability Margins to the maximum possible extent.*
 3. *System Operators shall regularly and at least once a year update and review the applied confidence level used for sizing of Reliability Margins on Critical Network Elements using the latest available information.*
9. The Network Code should require system operators to update and review generation shift keys used for capacity calculation regularly. An additional paragraph should be added to Article 29 as follows:

Each System Operator shall regularly and at least once a year update and review the Generation Shift Keys used for Capacity Calculation using the latest available information.

10. The Network Code should require system operators to update and review the remedial actions used for capacity calculation regularly. An additional paragraph should be added to Article 30 as follows:

Each System Operator shall regularly and at least once a year update and review the Remedial Actions for Capacity Calculation using the latest available information.

11. The Network Code should define general principles for calculating the flow based parameters and cross zonal capacities based on capacity calculation inputs. Both capacity calculation methods should be fully coordinated and interdependencies among different borders should be fully taken into account in both methods. The Agency is of the opinion that full coordination is only possible by calculating the security of supply domain based on detailed representation of the network with critical network elements. As coordinated net transmission capacity method requires cross zonal capacities on bidding zone borders, the aim of this method is to split the security of supply domain into cross zonal capacities on bidding zone borders. As there is an infinite number of ways to achieve that, the system operators should – when splitting the domain - aim at maximizing the expected social welfare (economic surplus). This implies that more capacity is provided to the borders where higher price difference is expected. Article 34 should be amended to read:

1. *For each Capacity Calculation Timeframe, each System Operator of each Capacity Calculation Region shall provide the Coordinated Capacity Calculator(s) and all System Operators of that Capacity Calculation Region with Capacity Calculation inputs, pursuant to Article 22(2) and the results of previously allocated or nominated Cross Zonal Capacities.*
2. *Each Coordinated Capacity Calculator shall respect the mathematical description of the applied Capacity Calculation Approach pursuant to Article 22(2)(b).*
3. *Each Coordinated Capacity Calculator shall use data on Operational Security Limits and Critical Network Elements to calculate the Maximum Flows on Critical Network Elements.*
4. *Each Coordinated Capacity Calculator shall use the Common Grid Model, Generation Shift Keys and Contingencies relevant for Capacity Calculation to calculate the Power Transfer Distribution Factors.*
5. *Each Coordinated Capacity Calculator shall use Power Transfer Distribution Factors to calculate the flows resulting from previously allocated or nominated Cross Zonal Capacities in Capacity Calculation Region.*
6. *Each Coordinated Capacity Calculator shall calculate Base Case Flows for Critical Network Elements taking into account the Contingencies relevant for Capacity Calculation. Each Coordinated Capacity Calculator shall adjust the Base Case Flows*

- by assuming no Cross Zonal Exchanges in Capacity Calculation Region. When adjusting the Base Case Flows, Coordinated Capacity Calculators shall also apply the rules for avoiding undue discrimination between internal and Cross Zonal exchanges pursuant to Article 22(2)(b).*
- 7. Each Coordinated Capacity Calculator shall calculate the Remaining Available Flows on Critical Network Elements taking into account the Contingencies relevant for Capacity Calculation. Remaining Available Flows on Critical Network Elements shall equal Maximum Flows reduced by adjusted Base Case Flows, Reliability Margins and flows resulting from previously allocated or nominated Cross Zonal Capacities.*
 - 8. Each Coordinated Capacity Calculator shall adjust the Remaining Available Flows or Power Transfer Distribution Factors using available Remedial Actions to be considered in Capacity Calculation in accordance with Article 30.*
 - 9. Coordinated Capacity Calculators applying Coordinated Net Transmission Capacity Calculation Approach shall use Power Transfer Distribution Factors and Remaining Available Flows on Critical Network Elements to calculate the Cross Zonal Capacities on the Bidding Zone Borders such that the flows resulting from Capacity Allocation shall not exceed Remaining Available Flows and that the expected Economic Surplus in Capacity Allocation is maximized.*
 - 10. Each Coordinated Capacity Calculator shall cooperate with the neighbouring Coordinated Capacity Calculators. This coordination shall be ensured by neighbouring System Operators and be achieved by exchanging and confirming information regarding the interdependency between the regional Coordinated Capacity Calculators relevant for the capacity calculation and validation. Neighbouring System Operators shall provide information on the interdependency to the Coordinated Capacity Calculators before the capacity calculation. The biennial report prepared in accordance with Article 34 shall contain an assessment of the accuracy of this information and corrective measures, where appropriate.*
 - 11. Each Coordinated Capacity Calculator applying:*
 - a) the Coordinated Net Transmission Capacity Approach shall produce the Cross Zonal Capacity values for each Bidding Zone Border within the Capacity Calculation Region; or*
 - b) the Flow Based Approach shall produce the Flow Based Parameters for each Bidding Zone within the Capacity Calculation Region.*
 - 12. Each Coordinated Capacity Calculator shall submit the Cross Zonal for validation, pursuant to Article 22(2)(c), to each System Operator within that Capacity Calculation Region.*
12. The Network Code should define a robust requirement for achieving harmonisation of individual grid models. Article 21(4) should be amended to read:

All System Operators shall harmonize the way in which Individual Grid Models are built to the maximum possible extent.

13. The Network Code should define a robust requirement for achieving harmonisation of capacity calculation inputs used for capacity calculation. Article 22(5) should be amended to read:

All System Operators of each Capacity Calculation Region shall harmonize the Capacity Calculation inputs used for the Capacity Calculation to the maximum possible extent.

14. Network Code should also require the capacity calculation methodologies to be progressively harmonised across different capacity calculation regions to the extent required for ensuring an efficient use of the network. Article 22(6) should be amended to read:

All System Operators shall progressively harmonize the Capacity Calculation Methodologies across Capacity Calculation Regions.

15. The Network Code should require high level of coordination in capacity calculation. This also applies for allocation constraints that should be coordinated by the coordinated capacity calculator and submitted to market coupling operator(s). Article 53 should be amended to read:

1. The Coordinated Capacity Calculator(s) shall ensure that Cross Zonal Capacities and Allocation Constraints shall be provided to the Market Coupling Operator(s) in time to ensure the publication of the Cross Zonal Capacities and Allocation Constraints to the market no later than 11.00 Market Time D-1.

2. If a Coordinated Capacity Calculator(s) is unable to provide Cross Zonal Capacities and Allocation Constraints one hour prior to the closure of the Day Ahead Market, that Coordinated Capacity Calculator shall notify the Market Information Aggregator(s), Market Coupling Operator(s) and Nominated Electricity Market Operators. The Nominated Electricity Market Operators shall immediately publish a notification to all Market Participants.

3. In such cases, Cross Zonal Capacities and Allocation Constraints shall be provided by the Coordinated Capacity Calculator(s) no later than the Day Ahead Market Gate Closure Time.

16. The Network Code should require high level of coordination in capacity calculation. This also applies for allocation constraints that should be coordinated by the coordinated capacity calculator and submitted to market coupling operator(s). Article 66 should be amended to read:

1. The Coordinated Capacity Calculator(s) shall ensure that Cross Zonal Capacities and Allocation Constraints shall be provided to the Market Coupling Operator(s) not later than 15 minutes prior to the Intraday Cross Zonal Gate Opening Time.

2. *Each System Operator shall notify the Coordinated Capacity Calculator(s) of its Capacity Calculation Region if updates are required to the Cross Zonal Capacities and Allocation Constraints, due to operational changes on the Transmission System. The Coordinated Capacity Calculator(s) shall then notify the Market Coupling Operator(s).*
3. *If any Coordinated Capacity Calculator is unable to comply with paragraph 1, that Coordinated Capacity Calculator shall notify the Market Coupling Operator(s) and Nominated Electricity Market Operators. The Nominated Electricity Market Operators shall immediately publish a notification to all Market Participants.*

III. Amendments with respect to redispatching and countertrading arrangements

1. The Network Code should provide a deadline by which all system operators from each capacity calculation region should develop a proposal for a common methodology for coordinated redispatching and countertrading. Article 41(1) should be amended to read:

No later than eighteen months after the entry into force of this Network Code all System Operators of each Capacity Calculation Region shall develop a proposal for a common Methodology for coordinated Redispatching and/or Countertrading.

2. The Network Code should provide an obligation on system operators from each capacity calculation region to harmonise progressively the redispatching and countertrading mechanisms and/or arrangements with which they are entitled to redispatch available generation or load units. Article 41(2) should be amended to read:

Each System Operator shall be entitled to redispatch all available generation or load units in accordance with the appropriate mechanisms or/and agreements applicable to its Control Area. By no later than 24 months after the entry into force of this Network Code, and every 2 years thereafter, if necessary, all System Operators of each Capacity Calculation Region shall develop proposals to be submitted to their respective National Regulatory Authorities to coordinate and harmonize these mechanisms and/or arrangements progressively. Such proposals shall aim to avoid that these mechanisms and/or arrangements distort the market.

3. The Network Code should provide an obligation for system operators to coordinate and optimise activation of redispatching actions within the capacity calculation regions. Article 41(3) should be amended to read:

All System Operators of each Capacity Calculation Region shall coordinate the use of Redispatching and/or Countertrading resources taking into account the impact on system security and economic efficiency.

4. The Network Code should provide that system operators coordinate at least the redispatching actions that significantly influence the networks of other system operators. Article 41 should be complemented with an additional paragraph:

Methodology for coordinated Redispatching and/or Countertrading shall include at least Redispatching actions, which are applied to relieve a Physical Congestion in one Control Area that is significantly caused by generation, load or topology outside this Control Area or application of which is significantly influencing the flows outside this Control Area.

5. Articles 83 and 84 of the Network Code should be consistent with Article 41 with regard to the definition of redispatching actions that shall be subject to coordination, and cost sharing. Thus, any occurrences of the term “Cross Border” should be deleted from Articles 83 and 84.
6. The Network Code should provide that the methodology for redispatching or countertrading cost sharing should include at least the redispatching actions that significantly influence the networks of other system operators. Article 83 should be complemented with an additional paragraph:

Redispatching or Countertrading cost sharing methodology shall include at least Redispatching actions, which are applied to relieve a Physical Congestion in one Control Area that is significantly caused by generation, load or topology outside this Control Area or application of which is significantly influencing the flows outside this Control Area.

IV. Amendments with respect to regulatory approval procedures

1. The Network Code should provide National Regulatory Authorities with competences to approve the terms or conditions for access to cross-border infrastructures or at least the methodologies used to calculate or establish them. Article 8(2) should be amended to read:

National Regulatory Authorities shall be responsible for approving the terms and conditions or at least the methodologies used to calculate or establish the terms and conditions for access to cross-border infrastructures, including the procedures for the Allocation of capacity and congestion management. They shall be responsible for approving in particular the terms and conditions or methodologies referred to in paragraphs 3, 4 and 5. The party responsible under this Network Code for developing a proposal for those terms and conditions or methodologies shall submit them, by the deadlines for developing those proposals specified in this Network Code, to National Regulatory Authorities for approval.

2. The Network Code should provide for the backup procedures pursuant to Article 42 and congestion income distribution arrangements pursuant to Articles 81 and 82 to be approved by all National Regulatory Authorities. Article 8(3) should be amended to read:

The following shall be subject to approval by all National Regulatory Authorities:

- (a) *the Capacity Calculation Regions and the amendments pursuant to Article 14 and Article 15;*
- (b) *the generation and load data provision methodology and amendments pursuant to Article 16 and Article 17;*

- (c) *the Common Grid Model methodology and amendments pursuant to Article 18 and Article 19;*
 - (d) *back-up procedures pursuant to Article 42;*
 - (e) *a description of the System Operators set of requirements related to efficient Capacity Allocation pursuant to Article 43(1)(a);*
 - (f) *a description of the Nominated Electricity Market Operator set of requirements pursuant to Article 43(1)(b);*
 - (g) *the Maximum and Minimum Prices according to Article 48 and Article 62;*
 - (h) *a description of the proposal of the Market Coupling Operator(s) pursuant to Article 43(3);*
 - (i) *a description of Algorithm Amendment requirements with direct and significant impact on efficient Capacity Allocation pursuant to Article 44(1) and Article 44(2);*
 - (j) *a description of the methodologies for the calculation of Scheduled Exchanges pursuant to Article 50 and Article 64;*
 - (k) *the Intraday capacity pricing methodology developed pursuant to Article 63;*
 - (l) *the Day Ahead Firmness deadline pursuant to Article 76; and*
 - (m) *the Congestion Income distribution arrangements pursuant to Article 81 and Article 82.*
3. The Network Code should amend the name of the “Redispatching and countertrading arrangements” to “Methodology for Coordinated Redispatching and Countertrading”. Article 8(4) should be amended to read:

The following shall be subject to approval by each National Regulatory Authority of the concerned Capacity Calculation Region:

- (a) *the Capacity Calculation methodology and amendments pursuant to Article 22 and Article 23;*
 - (b) *the Methodology for coordinated Redispatching and Countertrading pursuant to Article 41; and*
 - (c) *the Redispatching or Countertrading cost sharing methodology pursuant to Article 83 and Article 84.*
4. For consistency with Article 67 of the Network Code, the regulatory approval of intraday cross zonal gate opening should be defined in Article 8(5). Article 8(5) should be amended to read:

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:

- (a) *Bidding Zone configuration pursuant to Article 37;*
- (b) *fallback procedures pursuant to Article 52;*
- (c) *the Intraday Cross Zonal Gate Opening Time and Intraday Cross Zonal Gate Closure Time pursuant to Article 67;*
- (d) *complementary regional auctions pursuant to Article 71;*
- (e) *Shipping Agent arrangements pursuant to Article 74(4); and*
- (f) *Capacity Allocation and congestion management costs pursuant to Articles 85 to 90.*

5. The Network Code should provide National Regulatory Authorities with competences required for them to approve the terms or conditions for access to cross-border infrastructures or at least the methodologies applied to calculate or establish them. Article 8(6) should be amended to read:

For each of the approvals pursuant to paragraphs 3 to 5, System Operators, Nominated Electricity Market Operators or Market Coupling Operator(s), as the case may be, shall, prior to the expiry of the deadline for developing the terms and conditions or methodologies, submit those terms and conditions or methodologies to the competent National Regulatory Authority for approval. All submissions shall include a proposed timescale for implementation and a description of the expected impact of the terms and conditions or methodologies.

6. The Network Code should provide National Regulatory Authorities with competences required for them to approve the terms or conditions for access to cross-border infrastructures or at least the methodologies applied to calculate or establish them. Article 8(8) should be amended to read:

National Regulatory Authorities shall, no later than six months after having received the terms and conditions or methodologies pursuant to paragraphs 1 to 6, provide System Operators, Nominated Electricity Market Operators or the Market Coupling Operator(s) as the case may be, with an approval or requirement for amending the proposed terms and conditions or methodologies.

7. The Network Code should provide obligations on system operators to resubmit the proposed terms and conditions or methodologies to National Regulatory Authorities in case they require amendments to these terms and conditions or methodologies. Article 8(9) should be amended to read:

In the event that concerned National Regulatory Authorities require an amendment to the proposed terms and conditions or methodologies, System Operators, Nominated Electricity Market Operators or the Market Coupling Operator(s) as the case may be, shall submit amended terms and conditions or methodologies for approval within three months.

8. The Network Code should provide a general obligation on National Regulatory Authorities to, when approving the terms and conditions or methodologies, consult each other and cooperate closely with each other and to aim to reach an agreement within the period referred to in Article 8 of Regulation (EC) No 713/2009. Furthermore, reiteration of Article 8 of the Regulation (EC) No 713/2009 is not entirely correct and not needed in the Network Code. Article 8(10) should be amended to read:

When more than one National Regulatory Authority is competent for specific terms and conditions or methodologies pursuant to this Network Code, the National Regulatory Authorities concerned shall closely consult and cooperate with each other and aim at reaching an agreement within the period referred to in Article 8 of Regulation (EC) No 713/2009.

9. The Network Code should not only provide general competences of National Regulatory Authorities for them to require amendments to the proposed terms and conditions or methodologies but also to the already approved terms and conditions or methodologies. Article 8 should be complemented with an additional paragraph which reads:

In the event that concerned National Regulatory Authorities require an amendment to the terms and conditions or methodologies approved pursuant to this Article, System Operators, Nominated Electricity Market Operators or the Market Coupling Operator(s) as the case may be, shall submit amended terms and conditions or methodologies for approval within six months.

10. Network Code should not mix the competences of National Regulatory Authorities over amendments to the terms and conditions or methodologies which they can require in line with the Directive 2009/72/EC with the possible competences of system operators to propose amendments. Article 15 should be amended to read:

1. All System Operators shall be entitled to launch a reassessment of Capacity Calculation Regions and develop a proposal to amend Capacity Calculation Regions. A reassessment shall be launched not earlier than one year after the previous assessment or reassessment.

2. Where a reassessment of the Capacity Calculation Regions is launched by all System Operators, they shall develop a proposal to amend or maintain the current Capacity Calculation Regions in accordance with Article 14(2) and 14(3).

11. Network Code should not mix the competences of National Regulatory Authorities over amendments to the terms and conditions or methodologies, which they can require in line with the Directive 2009/72/EC, with the possible competences of system operators to propose amendments. Article 19 should be amended to read:

1. All System Operators shall be entitled to launch a reassessment of the Common Grid Model methodology and develop a proposal to amend the Common Grid Model methodology. A reassessment shall be launched not earlier than one year after the previous assessment or reassessment.

2. Where a reassessment of the Common Grid Model methodology is launched by all System Operators, they shall develop a proposal to amend or maintain the current Common Grid Model methodology in accordance with Article 18.

12. Network Code should not mix the competences of National Regulatory Authorities over amendments to the terms and conditions or methodologies, which they can require in line with the Directive 2009/72/EC, with the possible competences of system operators to propose amendments. Article 23 should be amended to read:

1. All System Operators of a Capacity Calculation Region shall be entitled to launch a reassessment of the Capacity Calculation Methodology and develop a proposal to amend the Capacity Calculation Methodology. A reassessment shall be launched not earlier than one year after the previous assessment or reassessment.

2. *Where a reassessment of the Capacity Calculation Methodology is launched by all System Operators of a Capacity Calculation Region, they shall develop a proposal to amend or maintain the current Capacity Calculation Methodology of the Capacity Calculation Region in accordance with Article 22.*
13. Article 51 of the Network Code should provide more clarity with regard to system operators developing and proposing the terms and conditions or methodologies for National Regulatory Authorities' approval. Article 51 should be amended to read:
- Where Scheduled Exchanges are required by System Operators, System Operators shall periodically, but at least every second year, review the methodology for calculating Scheduled Exchanges resulting from the Day Ahead Market and where they identify a need to amend the methodology such that it better fulfils the objectives of this Network Code, they shall develop a proposal.*
14. Article 65 of the Network Code should provide more clarity with regard to system operators developing and proposing the terms and conditions or methodologies for National Regulatory Authorities' approval. Article 65 should be amended to read:
- Where Scheduled Exchanges are required by System Operators, System Operators shall periodically, but at least every two years, review the methodology for calculating Scheduled Exchanges resulting from the Intraday Market and where they identify a need to amend the methodology such that it better fulfils the objectives of this Network Code, they shall develop a proposal.*
15. Article 81 of the Network Code should provide more clarity with regard to system operators developing and proposing the terms and conditions or methodologies for National Regulatory Authorities' approval. Article 81 should be amended to read:
1. *No later than 30 June 2014, all System Operators shall develop a proposal for a Methodology for sharing Congestion Income.*
2. *The methodology developed pursuant to paragraph 1 shall:*
- (a) facilitate the efficient long-term operation and development of the pan-European Interconnected System and the efficient operation of the pan-European electricity market;*
 - (b) facilitate the achievement of the general principles of congestion management as specified in Article 16 of Regulation (EC) No 714/2009;*
 - (c) allow for reasonable financial planning;*
 - (d) be compatible across timeframes; and*
 - (e) establish arrangements to share Congestion Income deriving from transmission assets owned by parties other than System Operators.*
16. The Network Code should provide more clarity that all system operators shall develop a proposal for methodology for sharing congestion income. Article 82 should be amended to read:

Where System Operators identify a need to amend the methodology established pursuant to Article 81 they shall:

- (a) develop a proposal agreed by all System Operators; and*
- (b) demonstrate how the proposal better facilitates the achievement of the principles specified in Article 81(2).*

17. Network Code should not mix the competences of National Regulatory Authorities over amendments to the terms and conditions or methodologies, which they can require in line with the Directive 2009/72/EC, with the possible competences of system operators to propose amendments. Article 84 should be amended to read:

- 1. All System Operators of the Capacity Calculation Region shall be entitled to launch a reassessment of the Redispatching or Countertrading cost sharing methodology for a Capacity Calculation Region and develop a proposal to amend the Redispatching or Countertrading cost sharing methodology. A reassessment shall be launched not earlier than one year after the previous assessment or reassessment.*
- 2. Where a reassessment of the Redispatching or Countertrading cost sharing methodology of the Capacity Calculation Region is launched by all System Operators of the Capacity Calculation Region, they shall develop a proposal to amend or maintain the current common methodology for the Redispatching or Countertrading cost sharing of the Capacity Calculation Region in accordance with Article 83.*

V. Amendments with respect to assessment of bidding zones

The Network Code should provide more flexibility on bidding zone review process, in order for the relevant National Regulatory Authorities within a meaningful geographical area (considering the influence on other networks) to coordinate and agree upon the launch of the review of the bidding zones, where the relevant set of National Regulatory Authorities for such a review could be determined by a recommendation of the Agency. Additionally, the Network Code should allow the National Regulatory Authorities to launch the reassessment directly when the conditions in Article 37(1)(c) are met. Article 37(1) and (2) should be amended to read:

- 1. A review of the Bidding Zone configuration may be launched by:*
 - (a) all National Regulatory Authorities pursuant to Article 39;*
 - (b) relevant National Regulatory Authorities based upon a recommendation from the Agency; or*
 - (c) a National Regulatory Authority or a System Operator, with the approval of its National Regulatory Authority, inside the System Operator's Control Area, where the distribution of power flows is not highly influenced by exchanges between other Bidding Zones outside the System Operator's Control Area, if:*
 - the review of the Bidding Zone configuration is necessary in a hydro dominated systems due to rapid and unforeseen changes in network topology, patterns of generation and/or load or local energy situations (deficit or surplus), and when the*

- Bidding Zone configuration is deemed to be the adequate measure to preserve the System Security or to prevent the significant loss of Social Welfare; or*
- *the Bidding Zone configuration has negligible impact on the neighbouring System Operators' Control Area and is needed to efficiently maintain the System Security or to prevent a Social Welfare loss inside the System Operator's Control Area.*
2. *In the event that National Regulatory Authorities request to launch a review of the Bidding Zone configuration pursuant to paragraphs 1(a) or 1(b), they shall specify:*
- (a) *the geographic area(s) in which the Bidding Zone configuration shall be studied and the neighbouring geographic area(s) for which the impacts shall be taken into account;*
 - (b) *the participating System Operator(s); and*
 - (c) *the participating National Regulatory Authority(ies).*

VI. Amendments with respect to intraday regional auctions

1. The definition of capacity management module should be extended to enable the allocation of intraday cross zonal capacities also by means of an implicit regional auction. The definition of capacity management module in Article 2 should be amended to read:

Capacity Management Module *means a module containing up to date available Cross Zonal Capacity in real time for allocating Cross Zonal Capacity;*

2. The definition of intraday energy gate closure time is defined in a way that prevents the implementation of intraday regional auctions. As this definition is not used in the Network Code at all, the deletion of this definition is recommended.
3. The Network Code should provide some flexibility of intraday cross zonal gate closure time that respects at least the time needed to perform the intraday implicit auction. Article 71(1) should be amended to read:
- 1. *System Operators and Nominated Electricity Market Operators shall be entitled to develop a common proposal for design and implementation of complementary intraday regional auctions.*
 - 2. *Complementary intraday regional auctions may be implemented inside and/or between bidding zones in addition to pan-European Intraday solution. In order to perform the intraday regional auctions, the continuous trading inside and between the relevant bidding zones can be stopped for a limited period of time, which shall not exceed the minimum time required to perform the auction.*
 - 3. *Relevant National Regulatory Authorities may approve the proposal for complementary intraday regional auctions if the following conditions are met:*

- (a) *Regional auctions shall not have an adverse impact on the liquidity of the pan-European Intraday solution;*
- (b) *All Cross Zonal Capacity shall be allocated through the Capacity Management Module;*
- (c) *The regional auction shall not introduce any undue discrimination between Market Participants from adjacent regions;*
- (d) *National Regulatory Authorities shall have consulted the Market Participants in the concerned Member States.*

VII. Amendments with respect to the definition of a common timetable

The Network Code should foresee a shorter period for the publication of market information in the day ahead timeframe. Article 58(2) should be amended to read:

The Market Information Aggregator shall publish the information required in accordance with paragraph 1 (a), (c) and (f) no later than 15:30 Market Time D-1, for each Bidding Zone and for each Market Time Period. The Market Information Aggregator shall except in cases when Article 53 applies, publish the information required in accordance with paragraph 1 (d) and (e) no later than 11:00 Market Time D-1. The Market Coupling Operator shall, except in cases when Article 57 applies, use best endeavours to publish the information required in accordance with paragraph 1 (b) no later than one hour after Day Ahead Market Gate Closure Time.

VIII. Amendments with respect to the compensation in case of force majeure and emergency situation

1. The Network Code should oblige a system operator, which invokes force majeure or an emergency situation, to send the notification describing the nature of the force majeure and its probable duration directly to the contracting party. Article 80(2) should be amended to read:

The System Operator, which invokes the Force Majeure or the Emergency Situation, shall publish a notification describing the nature of Force Majeure or the Emergency Situation and its probable duration. This notification shall be made available to the contracting parties concerned.

2. The Network Code should impose that in the event of an emergency situation with capacities being allocated via explicit allocation, market participants shall be entitled to compensation equal to the price difference between the concerned bidding zones in the relevant timeframe. Article 80(3) should be amended to read:

Allocated Capacities, which are curtailed due to a Force Majeure situation or an Emergency Situation, shall be reimbursed or compensated for the period of that Force Majeure situation or Emergency Situation, by the System Operator, which invokes the Force Majeure or Emergency Situation, in accordance with the following arrangements:

- (a) *in the event of Implicit Allocation, Central Counter Parties or Shipping Agents shall not be subject to financial damage or financial benefit arising from any imbalance created by such curtailment;*
- (b) *in the event of Force Majeure and when capacities were allocated via Explicit Allocation, Market Participants shall be entitled to reimbursement of the price paid for the capacity during the Explicit Allocation process; or*
- (c) *in the event of Emergency Situation and when capacities were allocated via Explicit Allocation, Market Participants shall be entitled to compensation equal to the price difference of relevant markets between the concerned Bidding Zones in the relevant time frame.*

IX. Amendments with respect to the cost recovery

The Network Code should foresee the costs to be recovered by National Regulatory Authorities only when the costs are reasonable, proportionate and efficient. Article 85(2) should be amended to read:

Costs assessed as reasonable, efficient and proportionate shall be recovered via network tariffs or appropriate mechanisms as determined by National Regulatory Authorities.

X. Amendments with respect to the objectives of the Network Code

The Network Code should include an additional objective to achieve optimal use of transmission network. Article 4(2) should be amended to read:

This Network Code shall facilitate the achievement of the following objectives:

- (a) *promoting effective competition in the generation, trading and supply of electricity;*
 - (b) *ensuring optimal use of the transmission infrastructure;*
 - (c) *ensuring Operational Security;*
 - (d) *optimising the calculation and Allocation of Cross Zonal Capacity;*
 - (e) *ensuring non-discrimination;*
 - (f) *ensuring and enhancing the transparency and reliability of information; and*
 - (g) *contributing to the efficient long-term operation and development of the European electricity transmission network and electricity sector*
- in order to enhance pan-European Social Welfare.*

XI. Amendments with respect to transparency and consultation

1. Article 5(1) of the Network Code should provide general obligations and principles for public consultation. The list of terms and conditions or methodologies should be moved to Article 5(2). Thus Article 5(1) should be replaced with the following text:

The party responsible under this Network Code for developing the proposal in question shall make it freely available and consulted on it with Market Participants or, when

justified, with the Stakeholder Committee for a period of not less than 4 weeks. The proposal in question shall be consulted on at European level.

2. Article 5(2) of the Network Code should not contain the list of terms and conditions or methodologies that shall not be subject to consultation, since any terms and conditions or methodologies that are not listed are *e contrario* excluded from consultation. Instead, Article 5(2) should read as follows:

At least the following proposals shall be subject to consultation:

- (a) the Capacity Calculation Regions and the amendments pursuant to Article 14 and Article 15;*
- (b) the generation and load data provision methodology and amendments pursuant to Article 16 and Article 17;*
- (c) the Common Grid Model methodology and amendments pursuant to Article 18 and Article 19;*
- (d) the Capacity Calculation methodologies and amendments pursuant to Article 22 and 23;*
- (e) Bidding Zone configuration(s) pursuant to Article 37;*
- (f) Methodology for coordinated Redispatching and Countertrading pursuant to Article 41;*
- (g) back-up procedures pursuant to Article 42;*
- (h) a description of the System Operators' set of requirements related to efficient Capacity Allocation pursuant to Article 43(1)(a);*
- (i) a description of the Nominated Electricity Market Operators' set of requirements pursuant to Article 43(1)(b);*
- (j) a description of the proposal of the Market Coupling Operator(s) pursuant to Article 43(3);*
- (k) a description of Algorithm Amendment requirements with direct and significant impact on efficient Capacity Allocation pursuant to Article 44(1) and 44(2);*
- (l) the Maximum and Minimum Prices according to Article 48 and 62;*
- (m) a description of the methodologies for the calculation of Scheduled Exchanges pursuant to Article 50 and Article 64;*
- (n) fallback procedures pursuant to Articles 52;*
- (o) the Intraday capacity pricing methodology developed pursuant to Article 63;*
- (p) the Intraday Cross Zonal Gate Closure time pursuant to Article 67;*
- (q) complementary regional auctions pursuant to Article 71; and*
- (r) the Day Ahead Firmness deadline pursuant to Article 76.*

3. Article 5(3) should be deleted.

4. The Network Code should provide that all terms and conditions or methodologies are publically available, regardless of whether they have been consulted on or not. Article 6(1) should be replaced with the following text:

The party responsible under this Network Code for establishing the following items shall make them publically available after approval by the relevant National Regulatory Authorities or, if no such approval is required, after finalisation:

- (a) items according to Article 5(2);*
 - (b) Shipping Agent arrangements pursuant to Article 74(4);*
 - (c) Congestion Income distribution arrangements pursuant to Article 81 and 82;*
 - (d) the Redispatching or Countertrading cost sharing methodology pursuant to Articles 83 and 84; and*
 - (e) Capacity Allocation and congestion management costs pursuant to Articles 85 to 90.*
5. The Network Code should not specifically define that some terms and conditions or methodologies “shall not be made publically available”. Thus, Article 6(2) should be deleted.
6. Article 7 should specify that all information be published in a timely manner. Article 7 should be amended to read:

All entities referred to in Article 1(2) shall ensure that information is published in a timely manner and in a format, which does not create an actual or potential competitive advantage or disadvantage to any individual party or category of party.



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