

ENTSO-E Draft Network Code on Electricity Balancing

Version 1.30

16 October 2013

Notice

This work-in-progress document reflects the status of the work of Transmission System Operator experts as of 16 October 2013 in line with the ACER Framework Guidelines on Electricity System Operation published on 18 September 2012 after the EC mandate letter was received by ENTSO-E on 21 December 2012. Furthermore, it is based on the input received both through extensive informal dialogue with stakeholders and the formal stakeholder consultation, as well as bilateral / trilateral meetings with ACER and with the EC.

The document does not in any case represent a firm, binding or definitive ENTSO-E position on the content, the structure or the prerogatives of the Network Code on Electricity Balancing.

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC,

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 Regulators (ACER),

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 1228/2003 and especially Article 6,

Having regard to the priority list issued by the European Commission on 19 July 2012,

Having regard to the Framework Guideline on Electricity Balancing issued by the Agency for the Coordination of Energy Regulators on 18 September 2012,

Having regard to the draft Regulation on Submission and Publication of Data in Electricity Markets being developed in concurrent timescales to this Network Code,

Whereas:

- (1) Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC and Regulation (EC) No 714/2009 of the European Parliament and of the Council of 13 July 2009 underline the need for an increased cooperation and coordination among transmission system operators within a European Network of Transmission System Operators for Electricity (ENTSO-E) to create Network Codes for providing and managing effective and transparent access to the transmission networks across borders, and to ensure coordinated and sufficiently forward-looking planning and sound technical evolution of the transmission system in the European Union, including the creation of interconnection capacities, with due regard to the environment.
- (2) Transmission System Operators (TSOs) are according to Article 2 and 12 of Directive 2009/72/EC responsible for operating, ensuring the maintenance of and, if necessary, developing the extra high-voltage and high-voltage interconnected system its interconnections with other systems, and for ensuring the long-term ability of the system to meet reasonable demands for the transmission of electricity and with a view to its delivery of electricity to final customers or to distributors.
- (3) As stated in Directive 2009/72/EC a well-functioning internal market in electricity should provide producers with the appropriate incentives for investing in new power generation, including in electricity from renewable energy sources, paying special attention to the most isolated countries and regions in the European Union's energy market. A well-functioning market should also provide consumers with adequate measures to promote the more efficient use of energy for which a secure supply of energy is a precondition.
- (4) The security of energy supply is an essential element of public security and is therefore inherently connected to the efficient functioning of the internal market in electricity and the integration of the isolated electricity markets of Member States. Electricity can reach the citizens of the Union only through the network. Functioning electricity markets and, in particular, the

networks and other assets associated with electricity supply are essential for public security, for the competitiveness of the economy and for the well-being of the citizens of the Union.

- (5) ENTSO-E has drafted this Network Code on Electricity Balancing aiming to set out clear and objective requirements for Transmission System Operators, National Regulatory Authorities and Market Participants in order to contribute to non-discrimination, effective competition and the efficient functioning of the internal electricity market and to ensure system security in particular for the rules for trading related to technical and operational provision of system Balancing and the Balancing rules including network-related power reserve rules.
- (6) This Network Code has been drafted in accordance with the Article 8(7) of Regulation (EC) N°714/2009 according to which the Network Codes shall be developed for cross-border issues and market integration issues and shall be without prejudice to the right of Member States to establish national network codes which do not affect cross-border trade.
- (7) This Network Code has the objective of contributing to non-discrimination, effective competition, completion and efficient functioning of the internal market in electricity and cross-border trade, security of supply, providing benefits for customers, participation of Demand Side Response, supporting the achievement of the EU's targets for penetration of renewable generation, as well as ensuring the optimal management and coordinated operation of the European electricity transmission network.
- (8) Transmission System Operators shall be responsible for organising European Balancing Markets and shall strive for their integration, keeping the system in balance in the most efficient manner. To do so, they shall work in close cooperation and shall coordinate their activities as much as necessary.
- (9) Establishing a cooperation within Coordinated Balancing Areas and developing a framework for the development of the terms and conditions related to Balancing all Transmission System Operators shall take into account the regional specificities of different electricity market designs and in particular shall take into account the parallel existence of Central Dispatch Systems and Self-Dispatch Systems of European electricity markets.
- (10) The requirements of the Network Code on Load-Frequency Control and Reserves, especially regarding the functions and responsibilities established, or to be established as a consequence of the cooperation within a Coordinated Balancing Area, shall apply to all relevant Transmission System Operators.

HAS ADOPTED THIS NETWORK CODE:

CONTENTS

CHAPTER 1	GENERAL PROVISIONS	8
Article 1	SUBJECT MATTER AND SCOPE	8
Article 2	DEFINITIONS	8
Article 3	REGULATORY ASPECTS	13
Article 4	RECOVERY OF COSTS	13
Article 5	CONFIDENTIALITY OBLIGATIONS	14
Article 6	CONSULTATION	14
Article 7	REGULATORY APPROVALS	14
Article 8	PUBLICATION OF INFORMATION	16
Article 9	DELEGATION OF FUNCTIONS	17
CHAPTER 2	THE ELECTRICITY BALANCING SYSTEM	18
SECTION 1	PRINCIPLES OF THE BALANCING MARKET	18
Article 10	GENERAL OBJECTIVES OF THE BALANCING MARKET	18
Article 11	COORDINATED BALANCING AREA	19
SECTION 2	TARGETS	20
Article 12	TARGETS FOR THE ACTIVATION OF BALANCING ENERGY BIDS USED IN CROSS-BORDER REPLACEMENT RESERVE ACTIVATION PROCESS	20
Article 13	TARGETS FOR THE ACTIVATION OF BALANCING ENERGY BIDS USED IN CROSS-BORDER FREQUENCY RESTORATION RESERVES ACTIVATION PROCESS WITH MANUAL ACTIVATION	21
Article 14	TARGET FOR THE ACTIVATION OF BALANCING ENERGY BIDS USED IN CROSS-BORDER FREQUENCY RESTORATION RESERVES ACTIVATION PROCESS WITH AUTOMATIC ACTIVATION	23
Article 15	TARGET ON IMBALANCE NETTING PROCESS	24
Article 16	TARGETS ON IMBALANCE SETTLEMENT	25
SECTION 3	FUNCTIONS AND RESPONSIBILITIES	25
Article 17	ROLE OF THE TRANSMISSION SYSTEM OPERATORS	25
Article 18	COOPERATION WITH DISTRIBUTION SYSTEM OPERATORS	26
Article 19	ROLE OF BALANCING SERVICE PROVIDERS	26
Article 20	ROLE OF BALANCE RESPONSIBLE PARTIES	27
Article 21	FUNCTIONS IN COORDINATED BALANCING AREAS	27
Article 22	TERMS AND CONDITIONS RELATED TO BALANCING	28
Article 23	SCHEDULING AND DISPATCH ARRANGEMENTS	30

CHAPTER 3	PROCUREMENT OF BALANCING SERVICES.....	31
SECTION 1	GENERAL PROVISIONS FOR PROCUREMENT	31
Article 24	REQUIREMENTS FOR STANDARD AND SPECIFIC PRODUCTS.....	31
Article 25	THE USE OF STANDARD AND SPECIFIC PRODUCTS	32
Article 26	CONVERSION OF PRODUCTS	32
Article 27	MODIFICATION OF BIDS	32
Article 28	BALANCING ENERGY GATE CLOSURE TIME	33
Article 29	FALL-BACK PROCEDURES.....	33
SECTION 2	PROCUREMENT OF BALANCING CAPACITY WITHIN A RESPONSIBILITY AREA	34
Article 30	GENERAL PROVISIONS.....	34
Article 31	TRANSFER OF BALANCING CAPACITY WITHIN A RESPONSIBILITY AREA OR WHERE APPROPRIATE SCHEDULING AREA	34
SECTION 3	PROCUREMENT OF A BALANCING CAPACITY WITHIN A COORDINATED BALANCING AREA	35
Article 32	GENERAL PROVISIONS.....	35
Article 33	TRANSFER OF BALANCING CAPACITY WITHIN A COORDINATED BALANCING AREA	36
Article 34	TRANSITIONAL PROCUREMENT OF BALANCING CAPACITY FOR FREQUENCY RESTORATION RESERVES AND REPLACEMENT RESERVES IN THE FORM OF A TSO-BSP MODEL.....	36
SECTION 4	PROCUREMENT OF BALANCING ENERGY.....	37
Article 35	GENERAL PROVISIONS.....	37
SECTION 5	ACTIVATION OF THE BALANCING ENERGY	38
Article 36	GENERAL PROVISIONS.....	38
Article 37	ACTIVATION MECHANISM OF BALANCING ENERGY	39
CHAPTER 4	CROSS ZONAL CAPACITY FOR BALANCING SERVICES.....	41
SECTION 1	CROSS ZONAL CAPACITY FOR THE EXCHANGE OF BALANCING CAPACITY AND SHARING OF RESERVES.....	41
Article 38	RESERVATION OF CROSS ZONAL CAPACITY FOR TRANSMISSION SYSTEM OPERATORS	41
Article 39	CALCULATION OF MARKET VALUE OF CROSS ZONAL CAPACITY.....	41
Article 40	METHODOLOGY OF A CO-OPTIMISATION PROCESS	42
Article 41	METHODOLOGY FOR A MARKET-BASED RESERVATION.....	42
Article 42	METHODOLOGY FOR A RESERVATION BASED ON A SOCIO-ECONOMIC ANALYSIS ..	42
Article 43	RESERVATION OF CROSS ZONAL CAPACITY FOR BALANCING SERVICE PROVIDER ...	43
SECTION 2	CROSS ZONAL CAPACITY FOR THE EXCHANGE OF BALANCING ENERGY.....	43
Article 44	USE OF CROSS ZONAL CAPACITY FOR THE EXCHANGE OF BALANCING ENERGY.....	43

Article 45	CALCULATION OF CROSS ZONAL CAPACITY FOR THE EXCHANGE OF BALANCING ENERGY.....	43
Article 46	PRICING OF CROSS ZONAL CAPACITY FOR THE EXCHANGE OF BALANCING ENERGY.....	44
CHAPTER 5	SETTLEMENT.....	45
SECTION 1	SETTLEMENT PRINCIPLES (GENERALITIES)	45
Article 47	GENERAL SETTLEMENT PRINCIPLES	45
SECTION 2	SETTLEMENT OF BALANCING ENERGY WITH BALANCING SERVICE PROVIDERS.....	47
Article 48	GENERAL PRINCIPLES FOR BALANCING ENERGY.....	47
Article 49	BALANCING ENERGY FROM FREQUENCY CONTAINMENT PROCESS.....	47
Article 50	BALANCING ENERGY FROM FREQUENCY RESTORATION PROCESS.....	47
Article 51	BALANCING ENERGY FROM RESERVE REPLACEMENT PROCESS	48
Article 52	IMBALANCE ADJUSTMENT TO BALANCE RESPONSIBLE PARTY.....	48
SECTION 3	SETTLEMENT OF EXCHANGES OF ENERGY BETWEEN TRANSMISSION SYSTEM OPERATORS	48
Article 53	INTENDED EXCHANGES OF ENERGY	48
Article 54	UNINTENDED EXCHANGES OF ENERGY	49
SECTION 4	IMBALANCE SETTLEMENT	49
Article 55	IMBALANCE SETTLEMENT PERIOD	49
Article 56	IMBALANCE CALCULATION.....	50
Article 57	IMBALANCE PRICE	50
SECTION 5	SETTLEMENT OF BALANCING CAPACITY.....	51
Article 58	PROCUREMENT OF BALANCING CAPACITY WITHIN A RESPONSIBILITY AREA	51
Article 59	PROCUREMENT OF A BALANCING CAPACITY WITHIN A COORDINATED BALANCING AREA	51
SECTION 6	SETTLEMENT AMENDMENTS.....	52
Article 60	GENERAL PRINCIPLES	52
CHAPTER 6	ALGORITHM	53
Article 61	ALGORITHM DEVELOPMENT	53
Article 62	ALGORITHM AMENDMENT	53
CHAPTER 7	REPORTING	54
Article 63	REPORTING	54
CHAPTER 8	COST-BENEFIT ANALYSIS; TRANSITIONAL ARRANGEMENTS AND DEROGATIONS.....	56
Article 64	COST-BENEFIT ANALYSIS	56
Article 65	TRANSITION PERIOD.....	56
Article 66	DEROGATIONS.....	56

CHAPTER 9 FINAL PROVISIONS..... 59
Article 67 ENTRY INTO FORCE..... 59

DRAFT

CHAPTER 1

GENERAL PROVISIONS

Article 1

SUBJECT MATTER AND SCOPE

1. This Network Code establishes common rules for Electricity Balancing including the establishment of common principles for procurement and settlement of Frequency Containment Reserves, Frequency Restoration Reserves and Replacement Reserves and common methodology for the activation of Frequency Restoration Reserves and Replacement Reserves.
2. The requirements set forth by this Network Code shall apply in particular to Transmission System Operators, National Regulatory Authorities, the Agency, Distribution System Operators, third parties to whom responsibilities have been delegated, where applicable, and Market Participants.
3. In Member States where more than one Transmission System Operator exists, this Network Code shall apply to all Transmission System Operators within that Member State. Where a Transmission System Operator does not have a function relevant to one or some obligations under this Network Code, Member States may under the national regulatory regime provide that the responsibility to comply with one or some obligations under this Network Code is assigned to one or more different Transmission System Operators. In case of such assignment, the Network Code shall apply accordingly to the Transmission System Operators to which responsibilities have been assigned.
4. The common rules for Electricity Balancing established by this Network Code apply to Normal State, as defined in Article 8 of the Network Code on Operational Security.

Article 2

DEFINITIONS

For the purpose of this Network Code, the definitions in Article 2 of Regulation (EC) No 714/2009, Commission Regulations establishing Network Codes that have been adopted according to Article 6(11) of Regulation (EC) No 714/2009, Regulation (EU) No 543/2013 as well as Article 2 of directive 2009/72/EC shall apply. In addition, the following definitions shall apply:

Activation of Balancing Energy means the process of Transmission System Operators calling for Balancing Energy.

Activation Optimisation Function means the role to operate the algorithm developed to be applied for the optimisation of the Activation of Balancing Energy within a Coordinated Balancing Area.

Allocated Volume means an energy volume physically injected or withdrawn from the system and attributed to a Balance Responsible Party, for the calculation of the Imbalance of that Balance Responsible Party.

Balance Responsible Party means a market related entity or its chosen representative responsible for its Imbalances.

Balancing means all actions and processes, on all timescales, through which Transmission System Operators ensure, in a continuous way, to maintain the system frequency within a predefined stability range as set forth in the Network Code on Load-Frequency Control and Reserves, and to comply with the amount of reserves needed per Frequency Containment Process, Frequency Restoration Process and Reserve Replacement Process with respect to the required quality, as set forth in the Network Code on Load-Frequency Control and Reserves.

Balancing Energy means energy activated by Transmission System Operators to perform Balancing.

Balancing Energy Bids means a product on a Common Merit Order List that entails an option to accept an Imbalance Adjustment on the Position of the concerned Balance Responsible Parties due to activation and specificities of the Balancing Energy activated from the product.

Balancing Market means the entirety of institutional, commercial and operational arrangements that establish market-based management of the function of Balancing within the framework of the European Network Codes.

Balancing Capacity means the obligation of a Balancing Service Provider to place Balancing Energy Bids according to contractual specifications in order to contribute to the fulfilment of Reserve Capacity.

Balancing Capacity Bids means that the Balancing Service Provider offers to provide a certain amount of Balancing Capacity power for a certain reservation price for a given procurement cycle.

Balancing Services means Balancing Capacity or Balancing Energy.

Balancing Service Provider means a market participant providing Balancing Services to its Connection Transmission System Operator, or in case of the TSO-BSP model, to its Requesting Transmission System Operator.

Central Dispatch System means a scheduling and dispatch arrangement in a Responsibility Area where the Transmission System Operator performs Integrated Scheduling Process to determine the Unit Commitment of dispatchable generation or demand resources and issues dispatch instructions directly to these resources.

Common Merit Order List means a list of all Balancing Capacity Bids or Balancing Energy Bids per Standard Product, sorted per direction and in order of their bid prices, used for the Activation of Balancing Energy or procurement of Balancing Capacity within a Coordinated Balancing Area.

Connection Transmission System Operator means the single Transmission System Operator which operates the Responsibility Area in which a Balancing Service Provider or Balance

Responsible Party shall be compliant with the terms and conditions related to Balancing or is connected to the grid.

Coordinated Balancing Area means a cooperation with respect to the Exchange of Balancing Services between two or more Transmission System Operators.

Deactivation Period means the time period for ramping, from full delivery or withdrawal back to a set point.

Delivery Period means a time period of delivery during which the Balancing Service Provider delivers the full requested change of power in-feed or withdrawals to the system.

Divisibility means the possibility for the Transmission System Operator to use only part of the Balancing Energy Bids or Balancing Capacity Bids offered by the Balancing Service Provider, either in terms of power activation or time duration.

Exchange of Balancing Energy means the process of triggering the Activation of Balancing Energy by a Transmission System Operator with a different Responsibility Area than the one in which the activated Balancing Service Provider is connected.

Exchange of Balancing Capacity means the process of procuring Balancing Capacity at least in the form of a Standard Product by a Requesting Transmission System Operator from a different Responsibility Area than the one in which the procured Balancing Service Provider is connected.

Exchange of Balancing Services means the Exchange of Balancing Energy or the Exchange of Balancing Capacity, or both of them.

Full Activation Time means the time period between the activation request by Transmission System Operators and the corresponding full activation of the relevant product.

Gate Closure Time of Transmission System Operator Energy Bid Submission means the point in time where a Connection Transmission System Operator forwards the bids received from Balancing Service Provider to the Activation Optimisation Function. The Gate Closure Time of Transmission System Operator Energy Bid Submission is after Balancing Energy Gate Closure Time.

Imbalance means an energy volume calculated for a Balance Responsible Party and representing the difference between the Allocated Volume attributed to that Balance Responsible Party, and the Position of that Balance Responsible Party and any Imbalance Adjustment applied to that Balance Responsible Party, within a given Imbalance Settlement Period.

Imbalance Area means the Imbalance Price Area or a part of an Imbalance Price Area, for the calculation of an Imbalance.

Imbalance Adjustment means an energy volume representing the Balancing Energy from a Balancing Service Provider and applied by the Connection Transmission System Operator for an Imbalance Settlement Period to the concerned Balance Responsible Parties, for the calculation of the Imbalance of these Balance Responsible Parties.

Imbalance Netting Process Function means the responsibility to operate the algorithm developed to be applied for the Imbalance Netting Process between two or more Responsibility Areas.

Imbalance Price means the price in each Imbalance Settlement Period for an Imbalance in each direction.

Imbalance Price Area means either a Bidding Zone, part of a Bidding Zone or a combination of several Bidding Zones, to be defined by each Transmission System Operator for which Bidding Zone or Bidding Zones are unequal to Responsibility Area, for the purpose of calculation of Imbalance Prices.

Imbalance Settlement means a financial settlement mechanism aiming at charging or paying Balance Responsible Parties for their Imbalances.

Imbalance Settlement Period means time units Balance Responsible Parties' Imbalance is calculated.

Integrated Scheduling Process means a market-based continual process performed by a Transmission System Operator operating a Central Dispatch System in order to ensure secure system operation in real time. It starts in day-ahead timeframe and last until real-time. It is implemented as an optimisation problem where Balancing, congestion management and Balancing Capacity procurement are performed simultaneously based on bids and offers as well as technical parameters provided by Market Participants. Integrated Scheduling Process determines the Unit Commitment of majority of system resources capacity. The objective function for the Integrated Scheduling Process is minimisation of energy delivery cost while complying with operational security requirements.

Integrated Scheduling Process Bid means a price for delivery of services offered by Market Participants, which may be activated during Integrated Scheduling Process by Transmission System Operator.

Matched Bid means the bid selected by the Activation Optimisation Function to face the Transmission System Operators request for Balancing Energy.

Mode of Activation means the implementation of Activation of Balancing Energy, manual or automatic, depending on whether Balancing Energy is triggered manually by an operator or automatically by means of a closed-loop regulator.

Position means an energy volume representing the sum of scheduled commercial transactions of a Balance Responsible Party, on organised markets or between Balance

Responsible Parties, for the calculation of the Imbalance, or, where appropriate, means an energy volume representing scheduled injections, scheduled withdrawals or the sum of scheduled injections and withdrawals of a Balance Responsible Party, for the calculation of the Imbalance of that Balance Responsible Party.

Price of the Bid means the price of Balancing Energy in Euro per megawatthour or of Balancing Capacity in Euro per megawatthour.

Probabilistic Approach means calculate probabilities of the availability of Cross Zonal Capacities.

Requesting Transmission System Operator means the Transmission System Operator that requests Balancing Energy or Balancing Capacity.

Reserves Procurement Optimisation Function means the responsibility to operate the algorithm developed to be applied for the optimisation of the procurement of Balancing Capacity within a Coordinated Balancing Area in which Balancing Capacity is exchanged.

Self Dispatch System means a dispatch arrangement in a Responsibility Area where the schedule of all generation units and Demand Side Response is determined solely by the units owners.

Specific Product means a product different from a Standard Product.

Standard Products means a set of harmonised Balancing products defined by all Transmission System Operators for the Exchange of Balancing Services.

Transfer of Reserves Optimisation Function means the responsibility to operate the algorithm developed to be applied for the optimisation of the Transfer of Balancing Capacity of Balancing Service Providers for Balancing Capacity.

Transfer of Balancing Capacity means a delegation of Balancing Capacity from one Balancing Service Provider to another Balancing Service Provider.

TSO-BSP Model means a model for Exchange of Balancing Capacity where the Requesting Transmission System Operator has an agreement with a Balancing Service Provider in another Responsibility Area.

TSO-TSO Model means a model for the Exchange of Balancing Services with Transmission System Operators being the only entities involved in the Exchange of Balancing Services between Responsibility Areas. The TSO-TSO Model is the standard model for the Exchange of Balancing Services.

TSO-TSO Model for FRR and RR means a model for the Exchange of Balancing Capacity of Frequency Restoration and Replacement Reserves with Transmission System Operators being

the only entities involved in the Exchange of Balancing Capacity between Responsibility Areas.

TSO-TSO Settlement Function means the function that performs the settlement of cooperation processes between the Transmission System Operators of a Coordinated Balancing Area

Unit Commitment means scheduling of generation or load resource for each time interval representing among others: running state of unit; load or generation level; and switching states of automatic regulation system. Unit commitment aims at scheduling the most cost-effective combination of dispatchable generation and demand resources to meet forecasted load and reserve requirements, while complying with resources and transmission constraints.

Unshared Bids means an energy bid of a Standard Product or a Specific Product sent by a Balancing Service Provider to its Transmission System Operator which is not shared on the Common Merit Order List and therefore not available for activation by other Transmission System Operators.

Validity Period means the time period when the bid offered by the Balancing Service Provider can be activated, whereas all the characteristics of the product are respected. The Validity Period is defined by a beginning time and an ending time.

Article 3 REGULATORY ASPECTS

1. The requirements established in this Network Code and their applications are based on the principle of non-discrimination and transparency as well as the principle of optimisation between the overall efficiency and total cost for all involved parties.
2. Notwithstanding the above, the application of the non-discrimination principle and the principle of optimisation between the overall efficiency and total costs for all involved parties shall be balanced with the aim of achieving transparency in issues of interest for the market and the assignment to the real originator of the costs.

Article 4 RECOVERY OF COSTS

1. The costs related to the obligations referred to in this Network Code which are to be borne by regulated Network Operators, where applicable, shall be assessed by National Regulatory Authorities.
2. Costs assessed as efficient, reasonable and proportionate shall be recovered as determined by National Regulatory Authorities.
3. If requested to do so by National Regulatory Authorities, regulated Network Operators shall, within three months of such a request, use best endeavours to provide such additional information as reasonably requested by National Regulatory Authorities to facilitate the assessment of the costs incurred.

Article 5
CONFIDENTIALITY OBLIGATIONS

1. All entities referred to in Article 1(2) shall preserve confidentiality of the information and data submitted to them in the fulfilment of the obligations arising from this Network Code and shall use them exclusively for the purpose they have been submitted in compliance with this Network Code.

Article 6
CONSULTATION

1. The following shall be publically consulted on for a period of at least four weeks by the party or parties responsible for developing the following proposals:
 - (a) terms and conditions related to Balancing pursuant to Article 22;
 - (b) the proposals for Standard Products pursuant to Article 24;
 - (c) common pricing methods within a Coordinated Balancing Area for the procurement of Balancing Capacity pursuant to Article 32;
 - (d) the proposal for a common pricing method for Balancing Energy Standard Products pursuant to Article 35;
 - (e) the methodology for the calculation of Unshared Bids pursuant to Article 36;
 - (f) methodology of a co-optimisation process for Cross Zonal Capacity for Exchange of Balancing Capacity or Sharing of Reserves pursuant to Article 40;
 - (g) methodology of a market-based reservation of Cross Zonal Capacity for Exchange of Balancing Capacity or Sharing of Reserves pursuant to Article 41;
 - (h) methodology of a socio-economic analysis for Cross Zonal Capacity for Exchange of Balancing Capacity or Sharing of Reserves pursuant to Article 42;
 - (i) the principles for the algorithms to be applied pursuant to Article 61;
 - (j) the criteria and methodology for each Cost-Benefit Analysis pursuant to Article 64(1); and;
 - (k) the results of each Cost-Benefit Analysis pursuant to Article 64(3).
2. The views of stakeholders emerging from the consultations undertaken pursuant to paragraph 1 shall be duly considered by the party to whom the obligation is addressed prior to the submission of the document for regulatory approval, if required, or prior to publication in all other cases. In all cases, a clear and robust justification of the reasons for including or not including the views emerging from the consultation in the submission shall be developed and published in a timely manner.

Article 7
REGULATORY APPROVALS

1. The items specified in paragraphs 2 to 4 shall be treated in a manner consistent with Article 37 of Directive 2009/72/EC.
2. The following shall be subject to approval by all National Regulatory Authorities:
 - a) the proposals for Standard Products pursuant to Article 24;
 - b) the proposal for a common pricing method of Balancing Energy Standard Products pursuant to Article 35;

- c) the modification proposal for the target model for activation of Balancing Energy Bids used in Cross-Border Replacement Reserve Activation Process pursuant to Article 12;
 - d) the modification proposal for the target model for activation of Balancing Energy Bids used in Cross-Border Frequency Restoration Reserves Activation Process with manual activation pursuant to Article 13;
 - e) the proposal for the target model for activation of Balancing Energy Bids used in Cross-Border Frequency Restoration Reserves Activation Process with automatic activation pursuant to Article 14;
 - f) the proposal for the target model on Imbalance Netting Process pursuant to Article 15;
 - g) the criteria and methodology for each Cost-Benefit Analysis pursuant to Article 64(1); and
 - h) the results of each Cost-Benefit Analysis pursuant to Article 64(3).
3. The following shall be subject to approval by all National Regulatory Authorities having jurisdiction over a Responsibility Area or where appropriate Scheduling Area that form part of the concerned Coordinated Balancing Area:
- a) all proposals for Coordinated Balancing Areas pursuant to Article 11;
 - b) a contract for the procurement of Balancing Capacity longer than one month and one month in advance of the provision of the Balancing Capacity pursuant to Article 32(6);
 - c) procurement process linking upward and downward Balancing Capacity pursuant to Article 32(8); and
4. The following shall be subject to approval by all National Regulatory Authorities having jurisdiction over a Responsibility Area or where appropriate Scheduling Area that is affected by the proposal:
- a) common rules for TSO-TSO settlement including;
 - intended exchange of energy pursuant Article 53; and
 - unintended exchange of energy pursuant to Article 54;
 - b) requests for transitional exemptions for the procurement of Balancing Capacity pursuant to Article 34.
5. The following shall be subject to approval by the National Regulatory Authority of each Member State concerned on a case-by-case basis:
- a) the proposal to allow Transmission System Operators to offer Balancing Services themselves pursuant to Article 17;
 - b) the terms and conditions related to Balancing pursuant to Article 22;
 - c) a contract for the procurement of Balancing Capacity longer than one year and one year in advance of the provision of the Balancing Capacity pursuant to Article 30(3);
 - d) procurement process linking upward and downward Balancing Capacity pursuant to Article 30(4);
 - e) for Central Dispatch Systems;
 - rules for bids modification in Central Dispatch Systems, pursuant to Article 27.
 - f) the existence and use of Specific Products pursuant to Article 24 and Article 25;
 - g) the methodology for the calculation of Unshared Bids pursuant to Article 36;
 - h) the application by a Transmission System Operator for an Imbalance Settlement Period deviating from the decision pursuant to Article 55; and
 - i) the application for derogation in respect of one or more provisions of this Network Code pursuant to Article 66.

6. For each of the approvals pursuant to paragraphs 2 to 5, Transmission System Operators shall, prior to the expiry of the deadline submit those to the concerned National Regulatory Authority for approval. All submissions shall include a proposed timescale for implementation and a description of the expected impact of the procedure.
7. National Regulatory Authorities shall, after having received the proposals pursuant to paragraphs 1 to 5, provide Transmission System Operators with an approval or request to amend the proposals within:
 - a) three months after having received a proposal if the approval process concerns only one National Regulatory Authority; and
 - b) six months after having received a proposal if the approval process concerns more than one National Regulatory Authority.
8. In the event that the concerned National Regulatory Authorities request an amendment to the proposals pursuant to paragraphs 1 to 5, Transmission System Operators shall resubmit an amended proposal for approval within three months.
9. The relevant National Regulatory Authorities shall inform the Agency of the opening and outcome of any approval of fixing procedures.
10. Where the concerned National Regulatory Authorities have not been able to reach a decision in accordance with paragraph 7, the National Regulatory Authorities shall inform the Agency. 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.

Article 8

PUBLICATION OF INFORMATION

1. The items consulted upon according to Article 6(1) shall be made publically available after their approval, if regulatory approval is required, or after finalisation in all other cases by the party to whom the obligation is addressed.
2. All entities referred to in Article 1(2) shall ensure that information is published at a time and in a format which does not create an actual or potential competitive advantage or disadvantage to any individual or category of individuals.
3. Each Transmission System Operator shall publish, in English at least, the following information:
 - a) the terms and conditions related to Balancing sufficiently in advance before the procurement starts pursuant to Article 22;
 - b) all Transmission System Operators that have reserved Cross Zonal Capacity for Exchange of Balancing Capacity or Sharing of Reserves pursuant to Article 38, shall publish the volumes and time period of the reserved Cross Zonal Capacity. The market values of Cross Zonal Capacity used in the reservation processes calculated as specified in Article 39, shall also be published.
 - c) the approved methodologies pursuant to Article 40 to Article 42 at least one month before the application;
 - d) a description of the requirements of any algorithm developed and amendments to it, pursuant to Article 61;
 - e) all information contained in the common annual report pursuant to Article 63; and
 - f) volumes and prices of all Balancing Energy Bids, anonymous and possibly aggregated.

4. Each Transmission System Operator shall publish the following information on Specific Products:
 - a) the procured volumes of Specific Products;
 - b) the activated volumes of Specific Products; and
 - c) the amount of Unshared Bids pursuant to Article 36.
5. ENTSO-E shall publish the information referred to in this Article on the central information transparency platform, established pursuant to Article 3, of Commission Regulation (EU) No 543/2013 of 14 June 2013 on submission and publication of data in electricity markets and amending Annex I to Regulation (EC) No 714/2009 of the European Parliament and of the Council, or on a public website.

Article 9 DELEGATION OF FUNCTIONS

1. Transmission System Operators may delegate all or part of any functions assigned to them under this Network Code to one or more third parties. The delegating Transmission System Operator shall remain responsible for ensuring compliance with the obligations under this Network Code, including ensuring access for information necessary for monitoring by the National Regulatory Authority. Subject to regulatory approval Transmission System Operators may also delegate the responsibility for fulfilling the task of Imbalance Settlement between the Connection Transmission System Operator and the Balance Responsible Party.
2. In all cases a third party shall have clearly demonstrated its ability to fulfil each of the obligations of this Network Code to the satisfaction of the delegating Transmission System Operator, prior to delegation.
3. In the event that all or part of any function specified in this Network Code is delegated to a third party, the delegating Transmission System Operator shall ensure that suitable confidentiality agreements have been put in place prior to delegation.
4. All Transmission System Operators of a Coordinated Balancing Area shall have the right to delegate more than one function to the same third party.

CHAPTER 2

THE ELECTRICITY BALANCING SYSTEM

SECTION 1

PRINCIPLES OF THE BALANCING MARKET

Article 10

GENERAL OBJECTIVES OF THE BALANCING MARKET

1. This Network Code shall facilitate the achievement of the following objectives in order to enhance pan-European Social Welfare, in particular:
 - (a) ensure Operational Security;
 - (b) contribute to the efficient long-term operation and development of the European electricity Transmission System and electricity sector;
 - (c) foster effective competition, non-discrimination and transparency in Balancing Markets;
 - (d) facilitate the efficient functioning and prevent undue distortion of other electricity markets in timeframes different from the Balancing Markets;
 - (e) ensure that the procurement of Balancing Services is fair, objective, transparent and market-based, avoids undue barriers to entry for new entrants, in particular by enabling a Balancing Service Provider to act independently of a Balance Responsible Party, while mitigating cost and risks for both parties, fosters the liquidity of Balancing Markets while preventing undue distortions from within the internal market in electricity;
 - (f) promote the Exchange of Balancing Services and Sharing of Reserves;
 - (g) facilitate the participation of Demand Side Response including aggregation facilities and energy storage; and
 - (h) facilitate the participation of renewable energy sources and support the achievement of the European Union target for the penetration of renewable generation.

2. In fulfilling the requirements of this Network Code, Transmission System Operators and National Regulatory Authorities shall use reasonable endeavours to exploit synergies, drawing on experience gained through existing Balancing cooperation projects which have commenced, have concluded or are on-going at the date of the entry into force of this Network Code.

Article 11
COORDINATED BALANCING AREA

1. Each Transmission System Operator shall cooperate with at least one Transmission System Operator operating in a different Member State in the form of a Coordinated Balancing Area. Such cooperation shall comprise the Exchange of Balancing Energy from at least one Standard Product, or the implementation of an Imbalance Netting Process. Transmission System Operators shall cooperate in good faith when establishing Coordinated Balancing Areas and shall not prevent any other Transmission System Operator from fulfilling its obligations under this Network Code.
2. All Transmission System Operators intending to cooperate in a Coordinated Balancing Area shall submit a common proposal for regulatory approval detailing:
 - (a) the framework for the establishment of the terms and conditions related to Balancing pursuant to Article 22;
 - (b) minimum available volumes of Balancing Energy Bids of relevant products required to be compliant with Network Code on Load-Frequency Control and Reserves and the consequences of not fulfilling these requirements;
 - (c) the Common Merit Order Lists to be organised by the common Activation Optimisation Function pursuant to Article 37;
 - (d) the principles for the algorithms to be applied pursuant to Article 61;
 - (e) rules for settlement between Transmission System Operators pursuant to Article 53 and Article 54;
 - (f) if applicable, the framework of the methodology for Exchange of Balancing Capacity or Sharing of Reserves; in particular the framework of the methodology to ensure availability of Cross Zonal Capacity pursuant to Article 41 to Article 42;
 - (g) if applicable, the framework for Exchange of Balancing Services with other Coordinated Balancing Areas;
 - (h) if applicable, all requirements and rules including the approval process for the Transfer of Balancing Capacity pursuant to Article 33;
 - (i) if applicable, the change proposal of the common pricing method of Standard Products for Balancing Energy pursuant to Article 35, and
 - (j) if applicable, the activation of Balancing Energy Bids for purposes other than Balancing under the condition that the price of Balancing Energy Bids, activated for other purposes shall not determine the Imbalance Price.
3. The framework for the establishment of the terms and conditions pursuant to Article 11(2)(a) shall define harmonised principles for the terms and conditions related to Balancing pursuant to Article 22 and shall ensure a sufficient level of coordination between all Transmission System Operators of the Coordinated Balancing Area in order to facilitate the achievement of the objectives of the Balancing Market as defined in Article 10 as well as the targets defined in CHAPTER 2 SECTION 2.
4. Coordinated Balancing Areas established for the Exchange of Balancing Capacity shall be consistent with Coordinated Balancing Areas established for the Exchange of Balancing Energy for the same Standard Product for Balancing Capacity and Standard Product for Balancing Energy.
5. All Transmission System Operators of two or more interconnected Coordinated Balancing Areas shall have the right for the Exchange of Balancing Services or the Sharing of Reserves between these Coordinated Balancing Areas, which are already exchanged within these

Coordinated Balancing Areas. This cooperation shall be encouraged in order to facilitate the achievement of the targets established in CHAPTER 2 SECTION 2.

6. All Transmission System Operators shall cooperate loyally in promoting the creation, enlargement, and merging of Coordinated Balancing Areas in order to facilitate the achievement of the targets established in CHAPTER 2 SECTION 2. The cooperation shall include cooperation amongst and between Transmission System Operators operating Central Dispatch Systems and Transmission System Operators operating Self-Dispatch Systems. Where two or more Coordinated Balancing Areas for a Standard Product or Imbalance Netting Process merge, the result shall have the form of a single Coordinated Balancing Area replacing the previous ones.
7. All Transmission System Operators of each Coordinated Balancing Area shall cooperate closely to ensure the compatibility of the methodologies developed and applied pursuant to this Network Code and the efficient convergence of Coordinated Balancing Areas for Exchange of Balancing Energy.
8. Each Transmission System Operator shall report to the Agency as soon as incompatibilities between the actual developments within the Coordinated Balancing Areas and the developments foreseen in the intermediate model or the target model in accordance with CHAPTER 2 SECTION 2 are identified.
9. The amendment of a Coordinated Balancing Area regarding the participating Transmission System Operators or the Standard Products exchanged or shared shall follow the process described in paragraph 2.
10. The merging of Coordinated Balancing Areas shall follow the process described in paragraph 2.

SECTION 2 TARGETS

Article 12 TARGETS FOR THE ACTIVATION OF BALANCING ENERGY BIDS USED IN CROSS-BORDER REPLACEMENT RESERVE ACTIVATION PROCESS

1. This Article applies to Transmission System Operators operating a Reserve Replacement Process as a part of the Load-Frequency-Control Structure as defined in the Synchronous Area Operational Agreement pursuant the Network Code on Load-Frequency Control and Reserves.
2. No later than two years after the entry into force of this Network Code, Transmission System Operator pursuant to paragraph 1 shall form together with other Transmission System Operator pursuant to paragraph 1 a Coordinated Balancing Area for activation of Balancing Energy Bids used in the Cross-Border Replacement Reserve Activation Process and implement the intermediate model pursuant to paragraph 3.
3. The intermediate model for activation of Balancing Energy Bids used in the Cross-Border Replacement Reserve Activation Process shall:
 - (a) be based on a multilateral TSO-TSO Model with a Common Merit Order List;
 - (b) allow Transmission System Operator not to share a certain amount of Balancing Energy Bids as defined in Article 36 ;

- (c) allow for the existence of more than one Coordinated Balancing Area.
4. No later than six months after the entry into force of this Network Code, Transmission System Operators pursuant to paragraph 2 shall develop and publish a common implementation framework to implement the intermediate model pursuant to paragraph 3. The implementation framework shall include a configuration of the Coordinated Balancing Area and the implementation timeline. Transmission System Operators shall have the right to modify the implementation framework during the implementation of the intermediate model.
5. No later than three years after the entry into force of this Network Code, all Transmission System Operators pursuant to paragraph 1 shall have right to propose:
- (a) a modification of the target model pursuant to paragraph 6; and
 - (b) a modified configuration of Coordinated Balancing Areas for the target model for activation of Balancing Energy Bids used in the Cross-Border Replacement Reserve Activation Process which shall allow more than one Coordinated Balancing Area if it is demonstrated that it does not lead to reduced benefit compared to only one Coordinated Balancing Area.
- The proposals pursuant to paragraph 5(a) and (b) shall be supported by a Cost-Benefit Analysis performed by all Transmission System Operators pursuant to paragraph 1 and shall be subject to regulatory approval.
6. The target model for activation of Balancing Energy Bids used in the Cross-Border Replacement Reserve Activation Process shall:
- (a) be based on a multilateral TSO-TSO Model with a Common Merit Order List;
 - (b) not allow Unshared Bids for Standard Products.
7. All Transmission System Operators pursuant to paragraph 1 shall develop and publish a common implementation framework to implement the target model for activation of Balancing Energy Bids used in the Cross-Border Replacement Reserve Activation Process. The implementation framework shall include an implementation timeline and a configuration of the Coordinated Balancing Areas pursuant to paragraph 5(b). The implementation framework shall be published:
- (a) in case the modification of the target model pursuant to paragraph 5(a) is requested, no later than 6 months after the regulatory approval of the modified target model;
 - (b) in case no modification of the target model pursuant to paragraph 5(a) is requested, no later than one year after the regulatory approval of the modified configuration of Coordinated Balancing Areas.
- Transmission System Operators shall have the right to modify the implementation framework during the implementation of the target model.
8. No later than six years after entry into force of this Network Code, all Transmission System Operators pursuant to paragraph 1 shall implement the target model for activation of Balancing Energy Bids used in the Cross-Border Replacement Reserve Activation Process.

Article 13

TARGETS FOR THE ACTIVATION OF BALANCING ENERGY BIDS USED IN CROSS-BORDER FREQUENCY RESTORATION RESERVES ACTIVATION PROCESS WITH MANUAL ACTIVATION

1. This Article applies to Transmission System Operators operating a Frequency Restoration Process with manual activation as a part of the Load-Frequency-Control Structure as defined

in the Synchronous Area Operational Agreement pursuant the Network Code on Load-Frequency Control and Reserves.

2. No later than four years after the entry into force of this Network Code, Transmission System Operator pursuant to paragraph 1 shall together with other Transmission System Operator pursuant to paragraph 1 form a Coordinated Balancing Area for activation of Balancing Energy Bids used in the Cross-border Frequency Restoration Reserves Activation Process with manual activation and implement the intermediate model pursuant to paragraph 3.
3. The intermediate model for activation of Balancing Energy Bids used in the Cross-Border Frequency Restoration Reserves Activation Process with manual activation shall:
 - (a) be based on a multilateral TSO-TSO Model with Common Merit Order List;
 - (b) allow Transmission System Operator not to share certain amount of Balancing Energy Bids as defined in Article 36 ;
 - (c) allow the existence of more than one Coordinated Balancing Area.
4. No later than two years after the entry into force of this Network Code, Transmission System Operators pursuant to paragraph 2 shall develop and publish a common implementation framework to implement the intermediate model pursuant to paragraph 3. The implementation framework shall include a configuration of a Coordinated Balancing Area and an implementation timeline. Transmission System Operators shall have the right to modify the implementation framework during the implementation of the intermediate model.
5. No later than three years after the entry into force of this Network Code, all Transmission System Operators pursuant to paragraph 1 shall have right to propose:
 - (a) a modification of the target model pursuant to paragraph 6; and
 - (b) a modified configuration of Coordinated Balancing Areas for the target model for activation of Balancing Energy Bids used in the Cross-Border Frequency Restoration Reserves Activation Process with manual activation which shall allow more than one Coordinated Balancing Area if it is demonstrated that it does not lead to reduced benefits compared to only one Coordinated Balancing Area.Proposals pursuant to paragraph 5(a) and (b) shall be supported by a Cost-Benefit Analysis performed by all Transmission System Operators pursuant to paragraph 1 and shall be subject to regulatory approval.
6. The target model for activation of Balancing Energy Bids used in the Cross-Border Frequency Restoration Reserves Activation Process with manual activation shall:
 - (a) be based on a multilateral TSO-TSO Model with a Common Merit Order List;
 - (b) not allow Unshared Bids for Standard Products.
7. All Transmission System Operators pursuant to paragraph 1 shall develop and publish a common implementation framework to implement the target model for activation of Balancing Energy Bids used in the Cross-Border Frequency Restoration Reserves Activation Process with manual activation. The implementation framework shall include an implementation timeline and a configuration of the Coordinated Balancing Areas pursuant to paragraph 5(b). The implementation framework shall be published:
 - (a) in case the modification of the target model pursuant to paragraph 5(a) is requested, no later than 6 months after the regulatory approval of the modified target model;
 - (b) in case no modification of the target model pursuant to paragraph 5(a) is requested, no later than one year after the regulatory approval of the modified configuration of Coordinated Balancing Areas.

Transmission System Operators shall have the right to modify the implementation framework during the implementation of the target model.

8. No later than six years after entry in to force of this Network Code, all Transmission System Operators pursuant to paragraph 1 shall implement the target model for activation of Balancing Energy Bids used in the Cross-Border Frequency Restoration Reserves Activation Process with manual activation.

Article 14

TARGET FOR THE ACTIVATION OF BALANCING ENERGY BIDS USED IN CROSS-BORDER FREQUENCY RESTORATION RESERVES ACTIVATION PROCESS WITH AUTOMATIC ACTIVATION

1. This Article applies to Transmission System Operators operating a Frequency Restoration Process with automatic activation as a part of the Load-Frequency-Control Structure as defined in the Synchronous Area Operational Agreement pursuant the Network Code on Load-Frequency Control and Reserves.
2. No later than three years after the entry into force of this Network Code, all Transmission System Operators pursuant to paragraph 1 shall:
 - (a) propose the target model pursuant to paragraph 3;
 - (b) propose a configuration of Coordinated Balancing Areas for the target model for activation of Balancing Energy Bids used in the Cross-Border Frequency Restoration Reserves Activation Process with automatic activation which shall allow more than one Coordinated Balancing Area if it is demonstrated that it does not lead to reduced benefits compared to only one Coordinated Balancing Area.
Proposals pursuant to paragraph 2(a) and (b) shall be supported by a Cost-Benefit Analysis performed by all Transmission System Operators pursuant to paragraph 1 and shall be subject to regulatory approval.
3. The target model for activation of Balancing Energy Bids used in the Cross-Border Frequency Restoration Reserves Activation Process with automatic activation shall:
 - (c) be based on a TSO-TSO Model for activation of Balancing Energy Bids;
 - (d) to a maximum extent respect principles of a Common Merit Order List.
4. No later than one year after the regulatory approval on the target model and configuration of Coordinated Balancing Areas pursuant to paragraph 2 is made by National Regulatory Authorities, all Transmission System Operators pursuant to paragraph 1 shall develop and publish a common implementation framework to implement the target model for activation of Balancing Energy Bids used in the Cross-Border Frequency Restoration Reserves Activation Process with automatic activation. The implementation framework shall include an implementation timeline and a configuration of the Coordinated Balancing Areas pursuant to paragraph 2(b). Transmission System Operators shall have the right to modify the implementation framework during the implementation of the target model.
5. No later than four years after the entry into force of this Network Code, activation of Balancing Energy Bids used in Cross-Border Frequency Restoration Reserves Activation Process with automatic activation shall be coordinated between Transmission System Operators.

6. The target model for activation of Balancing Energy Bids used in the Cross-Border Frequency Restoration Reserves Activation Process with automatic activation based on a TSO-TSO Model with a Common Merit Order List shall be implemented in two steps:
 - (a) no later than five years after entry into force of this Network Code, all Transmission System Operators pursuant to paragraph 1 shall implement a Merit Order List within its Responsibility Areas; and
 - (b) no later than six years after entry into force of this Network Code, all Transmission System Operators pursuant to paragraph 1 shall implement the target model based on a TSO-TSO Model with a Common Merit Order List respecting the configuration of Coordinated Balancing Areas pursuant to paragraph 2(b).

Article 15
TARGET ON IMBALANCE NETTING PROCESS

1. This Article applies to Transmission System Operators operating Imbalance Netting Process as a part of the Load-Frequency-Control Structure as defined in the Synchronous Area Operational Agreement pursuant the Network Code on Load-Frequency Control and Reserves.
2. No later than two years after the entry into force of this Network Code, Transmission System Operator pursuant to paragraph 1 shall together with other Transmission System Operator pursuant to paragraph 1 form a Coordinated Balancing Area for Imbalance Netting Process and implement the intermediate model pursuant to paragraph 3.
3. The intermediate model for Imbalance Netting Process shall:
 - (a) be based on a TSO-TSO Model;
 - (b) allow existence of more than one Coordinated Balancing Area.
4. No later than 6 months after the entry into force of this Network Code, Transmission System Operators pursuant to paragraph 2 shall develop and publish a common implementation framework to implement the intermediate model pursuant to paragraph 3. The implementation framework shall include a configuration of a Coordinated Balancing Area and an implementation timeline. Transmission System Operators shall have the right to modify the implementation framework during the implementation of the intermediate model.
5. No later than three years after the entry into force of this Network Code, all Transmission System Operators pursuant to paragraph 1 shall:
 - (a) propose the target model for Imbalance Netting Process;
 - (b) propose a configuration of Coordinated Balancing Areas for the target model for Imbalance Netting Process which shall allow more than one Coordinated Balancing Area if it is demonstrated that it does not lead to reduced benefits compared to only one Coordinated Balancing Area.

Proposals pursuant to paragraph 5(a) and (b) shall be supported by a Cost-Benefit Analysis performed by all Transmission System Operators pursuant to paragraph 1 and shall be subject to regulatory approval .

6. No later than 6 months after the regulatory approval of the target model for Imbalance Netting Process and configuration of Coordinated Balancing Areas pursuant to paragraph 5 is made by National Regulatory Authorities, all Transmission System Operators pursuant to paragraph 1 shall develop and publish a common implementation framework to implement the target model for Imbalance Netting Process. The implementation framework shall include an implementation timeline and a configuration of the Coordinated Balancing Areas

pursuant to paragraph 5(b). Transmission System Operators shall have the right to modify the implementation framework during the implementation of the target model.

7. No later than six years after entry in to force of this Network Code, all Transmission System Operators pursuant to paragraph 1 shall implement the target model for Imbalance Netting Process.

Article 16
TARGETS ON IMBALANCE SETTLEMENT

1. No later than three years after the entry into force of this Network Code, all Transmission System Operators shall:
 - (a) harmonise the main features for Imbalance calculation pursuant to Article 56 and Imbalance pricing pursuant to Article 57; and
 - (b) harmonise principles for the Imbalance Settlement Period pursuant to Article 55 and subject to the results of Cost-Benefit Analysis.

SECTION 3
FUNCTIONS AND RESPONSIBILITIES

Article 17
ROLE OF THE TRANSMISSION SYSTEM OPERATORS

1. Each Transmission System Operator shall be responsible for procuring Balancing Services from Balancing Service Providers to ensure Operational Security.
2. Transmission System Operators shall not offer the Balancing Services themselves except, if there is insufficient Reserve Capacity with respect to dimensioning requirements pursuant to Network Code on Load-Frequency Control and Reserves.
3. Transmission System Operators shall use best endeavours to facilitate the Exchange of Balancing Energy within a Coordinated Balancing Area.
4. All decisions by Transmission System Operators within a Coordinated Balancing Area, or any other cooperation between two or more Transmission System Operators dealing with the Exchange of Balancing Services and Sharing of Reserves or an Imbalance Netting Process as stipulated in this Network Code, shall be unanimous.
5. Transmission System Operators operating in Central Dispatch Systems shall have the right, within the terms and conditions related to Balancing pursuant to Article 22, to limit the submission, updating and activation of Balancing Energy Bids in order to ensure that firm Balancing Energy Bids are available as an input to the Integrated Scheduling Process.
6. Where Transmission System Operators are required to adopt a decision in accordance with this Network Code, all Transmission System Operators shall cooperate loyally to adopt the decision.
7. Where all Transmission System Operators are required to adopt a decision in accordance with this Network Code, ENTSO-E shall facilitate the adoption of decisions.

Article 18
COOPERATION WITH DISTRIBUTION SYSTEM OPERATORS

1. Each Distribution System Operators shall respect the terms and conditions related to Balancing pursuant to Article 22 as defined by its Connection Transmission System Operator.
2. Distribution System Operators, Transmission System Operators and Balancing Service Providers shall cooperate to ensure efficient and effective Balancing.
3. According to the terms and conditions related to Balancing pursuant to Article 22, Distribution System Operator shall provide, upon request by the Connection Transmission System Operator, any information necessary to perform Balancing, monitoring and determine Allocated Volumes, within the Responsibility Area, to the Connection Transmission System Operator.
4. If there is not an agreement on the cost recovery between the Distribution System Operator and the Connection Transmission System Operator, or if no national legislation covering this matter is in place, the Distribution System Operator shall bear all costs resulting from:
 - (a) curtailment of schedules;
 - (b) limitation of Balancing Capacity;
 - (c) limitation of Balancing Energy; and
 - (d) activation of Balancing Energy;when the Distribution System Operator grid is the originator of limitation above mentioned.
5. Any limits defined by Distribution System Operators pursuant to Network Code on Load-Frequency Control and Reserves that could affect the provision of this Network Code shall be reported without delay by the Distribution System Operator to the Connection Transmission System Operator.

Article 19
ROLE OF BALANCING SERVICE PROVIDERS

1. Each Balancing Service Provider intending to provide Balancing Capacity or Balancing Energy needs to successfully pass the relevant pre-qualification stage defined by the Connection Transmission System Operators terms and conditions related to Balancing pursuant to Article 22.
2. Each Balancing Service Provider shall respect the terms and conditions related to Balancing pursuant to Article 22 as defined by its Connection Transmission System Operator.
3. Each Balancing Service Provider shall submit its Balancing Capacity Bids if any, as defined by the Connection Transmission System Operator, to the Connection Transmission System Operator in which the Balancing Service Provider has impact on one or more Balance Responsible Parties.
4. All Balancing Service Providers which participate to the procurement process pursuant to Article 22(4)(c) shall submit and shall have the right to update their Balancing Capacity Bids before the procurement gate closure time.
5. Balancing Service Provider with a contract on Balancing Capacity shall be obliged to submit the procured volume of Balancing Energy Bids respecting terms and conditions related to

Balancing pursuant to Article 22, for the corresponding products and time period, and before balancing gate closure time pursuant to Article 28.

6. Any Balancing Service Provider shall have the right to provide bids for Standard Products or Specific Products for the Exchange of Balancing Energy and the Exchange of Balancing Capacity, only to its Connection Transmission System Operator.
7. For a given product, the energy providing units, energy providing group, Demand Units or aggregators and the associated Balance Responsible Parties pursuant to Article 22(1)(c), shall belong to the same Imbalance Area where the Imbalance is calculated.

Article 20

ROLE OF BALANCE RESPONSIBLE PARTIES

1. Each Balance Responsible Party shall respect the terms and conditions related to Balancing pursuant to Article 22 as defined by its Connection Transmission System Operator.
2. Each Balance Responsible Party shall be financially responsible for the Imbalance to be settled with the Connection Transmission System Operator.
3. Each Balance Responsible Party shall be balanced or help the system to be balanced according to terms and conditions related to Balancing pursuant to Article 22.
4. Each Balance Responsible Party shall provide a balanced Position in the day ahead timeframe on the request of its Connection Transmission System Operator, according to the terms and conditions related to Balancing pursuant to Article 22.
5. Each Balance Responsible Party shall have the right to change its Position prior to Intraday Cross Zonal Gate Closure Time.
6. The Balance Responsible Party shall submit any modification of the Position to the Connection Transmission System Operator.
7. Each Balance Responsible Party shall have the right to change its Position after Intraday Cross Zonal Gate Closure Time only under approval of its Connection Transmission System Operator respecting terms and conditions related to Balancing pursuant to Article 22.

Article 21

FUNCTIONS IN COORDINATED BALANCING AREAS

1. The cooperation processes in Coordinated Balancing Areas shall involve the following functions:
 - (a) Imbalance Netting Process Function where Imbalance Netting Process is implemented;
 - (b) Reserves Procurement Optimisation Function, where Exchange of Balancing Capacity or Sharing of Reserves is implemented ;
 - (c) Transfer of Reserves Function, in cases where the possibility for Transfer of Balancing Capacity is offered;
 - (d) Activation Optimisation Function, in cases where Exchange of Balancing Energy is implemented; and
 - (e) TSO-TSO Settlement Function.

2. Each Transmission System Operator entrusted with a function pursuant to paragraph 1(a) to 1(d) shall operate the relevant algorithm developed pursuant to CHAPTER 6.
3. Each Transmission System Operator shall be responsible for these functions in the Responsibility Area.

Article 22

TERMS AND CONDITIONS RELATED TO BALANCING

1. Each Transmission System Operator shall define the terms and conditions related to Balancing based on the framework for the establishment of the terms and conditions pursuant to Article 11(2)(a) in its Responsibility Area or where appropriate Scheduling Area.
2. The terms and conditions related to Balancing shall facilitate the achievement of the objectives of the Balancing Market as defined in Article 10, and shall:
 - (a) allow the aggregation of Demand Side Response, the aggregation of generation units, or the aggregation of Demand Side Response and generation units within an Imbalance Area to offer Balancing Services;
 - (b) allow load entities, aggregators and generation units from conventional and renewable energy sources as well as storage elements to become Balancing Service Providers subject to the fulfilment of the requirements according to paragraph 4(a); and
 - (c) oblige the assignment of activated Balancing Energy Bids from a Balancing Service Provider with one or more Balance Responsible Parties to the calculation of an Imbalance Adjustment pursuant to Article 52.
3. Each Transmission System Operator shall monitor the fulfilment of the requirements set in the terms and conditions related to Balancing by all parties.
4. When elaborating the terms and conditions related to Balancing, each Connection Transmission System Operator shall coordinate with other relevant Transmission System Operators and relevant Distribution System Operators. These terms and conditions related to Balancing shall consist of reasonable and justified requirements and shall contain at least:
 - (a) rules for Balancing Service Providers pursuant to Article 19;
 - (b) rules for Balance Responsible Parties pursuant to Article 20;
 - (c) rules for procurement of Balancing Capacity pursuant to Article 30 to Article 33;
 - (d) rules for the determination of the volume of Balancing Energy to be settled with the Balancing Service Provider based on the requested Activation of Balancing Energy, or on metered values;
 - (e) rules for the settlement defined pursuant to CHAPTER 5 SECTION 2, SECTION 4 and SECTION 5 of this Network Code; and
 - (f) the consequences in case of non-compliance of Balancing Service Providers and Balance Responsible Parties with the terms and conditions related to Balancing.
5. Transmission System Operators which are part of more than one Coordinated Balancing Areas for different Standard Products shall:
 - (a) ensure that the frameworks for the establishment of the terms and conditions related to Balancing are consistent; and
 - (b) ensure that the terms and conditions related to Balancing in its Responsibility Area or where appropriate Scheduling Area are based on and compatible with all the frameworks corresponding to all the Coordinated Balancing Areas to which the

Transmission System Operator belongs, and update these terms and conditions related to Balancing if needed.

6. The rules for Balancing Service Providers according to paragraph 4(a) shall contain at least:
 - (a) the requirements for becoming a Balancing Service Provider;
 - (b) the conditions for the aggregation of Demand Side Response, the aggregation of generation units, or the aggregation of Demand Side Response and generation units within an Imbalance Area to become a Balancing Service Provider;
 - (c) data and information required at both pre-qualification stage and real-time operation in accordance with Article 5 of this Network Code;
 - (d) the modalities to identify the Balance Responsible Parties supporting the Imbalance Adjustment per Balancing Service product, pursuant to paragraph 1(c);
 - (e) data and information required by the Connection Transmission System Operator to evaluate the provision of Balancing Services, to assess the need for Balancing Services and to calculate Imbalance;
 - (f) the process of modifying Integrated Scheduling Process Bids pursuant to Article 27;
 - (g) all requirements and rules for the Transfer of Balancing Capacity pursuant to Article 31 and Article 33; and
 - (h) settlement procedures pursuant to Article 48(1).

7. The rules for Balance Responsible Parties according to paragraph 4(b) shall contain at least:
 - (a) the requirements for becoming a Balance Responsible Party;
 - (b) the requirement that Balance Responsible Party shall be financially responsible for the Imbalance to be settled with the Connection Transmission System Operator;
 - (c) the data and information required by the Connection Transmission System Operator, to calculate Imbalance; and
 - (d) settlement procedures pursuant to Article 56(2) and Article 57(1).

8. Each Connection Transmission System Operator shall have the right to include within the terms and conditions related to Balancing:
 - (a) an requirement on information on unused generation capacity and other Balancing resources from Balancing Service Providers after Day Ahead Market Gate Closure Time and Intraday Cross Zonal Gate Closure Time;
 - (b) an requirement on Balancing Service Providers to offer their unused generation capacity or other Balancing resources through bids in the Balancing Markets after day ahead;
 - (c) an requirement on Balancing Service Providers to offer their unused generation capacity or other Balancing resources through bids in the Balancing Markets after and Intraday Cross Zonal Gate Closure Time;
 - (d) an obligation for Balance Responsible Parties to provide a balanced Position in the day ahead timeframe;
 - (e) an obligation for Balance Responsible Parties to submit any modification of the Position to the Connection Transmission System Operator; and
 - (f) an obligation for Balancing Service Providers to appoint one Balance Responsible Party for all Balancing Service products.

For the case defined in 7(b) and 7(c) the proposal for the terms and conditions related to Balancing shall be complemented with a justification for these additional requirements.

9. Each Transmission System Operator shall have the right to launch a reassessment of the terms and conditions related to Balancing on the basis of their own judgment, and shall be obliged to launch this reassessment, if requested by its National Regulatory Authority.

Article 23
SCHEDULING AND DISPATCH ARRANGEMENTS

1. Each Transmission System Operator shall have the right to apply to the National Regulatory Authority to be acknowledged as a Transmission System Operator operating a Central Dispatch System or to stop being acknowledged as a Transmission System Operator operating a Central Dispatch System. The National Regulatory Authority shall submit its decision to the Agency.
2. Each application pursuant to paragraph 2 shall at least include:
 - (a) the local market arrangement;
 - (b) the scheduling arrangement; and
 - (c) the dispatch arrangement.
3. The application process shall be performed in accordance with Article 7(5).

DRAFT

CHAPTER 3

PROCUREMENT OF BALANCING SERVICES

SECTION 1 **GENERAL PROVISIONS FOR PROCUREMENT**

Article 24 **REQUIREMENTS FOR STANDARD AND SPECIFIC PRODUCTS**

1. No later than one year after entry into force of this Network Code, all Transmission System Operators shall prepare a common initial proposal for Standard Products for Balancing Capacity and Standard Products for Balancing Energy.
2. All Transmission System Operators shall review and update the characteristics of Standard Products for Balancing Capacity and Standard Products for Balancing Energy regarding their adequacy with system needs. This update is subject to regulatory approval pursuant to Article 7(2)(a).
3. All Transmission System Operators shall submit a proposal to define, review or update Standard Products for Balancing Capacity and Standard Products for Balancing Energy to the Agency.
4. The Standard Products for Balancing Capacity and Standard Products for Balancing Energy shall consist of at least the following standard characteristics defined by a fixed value or an appropriate range, depending on the requirements of the system and type of product:
 - (a) Preparation Period
 - (b) Ramping Period
 - (c) Full Activation Time;
 - (d) minimum and maximum quantity;
 - (e) Deactivation Period;
 - (f) Price of the Bid;
 - (g) Divisibility;
 - (h) minimum and maximum duration of Delivery Period;
 - (i) location;
 - (j) Validity Period;
 - (k) Mode of Activation; and
 - (l) minimal duration between the end of Deactivation Period and the following activation.
5. Standard Products for Balancing Capacity and Standard Products for Balancing Energy shall:
 - (a) satisfy the needs of all Transmission System Operators in order to ensure Operational Security and efficiently fulfil Frequency Quality Targets Parameters pursuant to the Network Code on Load-Frequency Control and Reserves;
 - (b) allow participation of the load entities, energy storage facility and generation including renewables entities and aggregation facilities to become a Balancing Service Provider;
 - (c) respect the Frequency Restoration Reserves and Replacement Reserves technical requirements, pursuant to the Network Code on Load-Frequency Control and Reserves; and
 - (d) consider the impact on the volumes pursuant to the Network Code on Load-Frequency Control and Reserves.

6. Each Transmission System Operator shall have the right to define and use Specific Products. The following requirements shall be respected and evaluated for regulatory approval:
 - (a) Standard Products are not sufficient to operate Balancing and respect Operational Security or enable the participation of resources that cannot be offered through Standard Products;
 - (b) Specific Products shall not create significant inefficiencies and distortions in national market or in the Coordinated Balancing Area;
 - (c) Specific Products shall be visible for other Transmission System Operators of the Coordinated Balancing Area;
 - (d) Specific Products could be marked as unavailable for activation by other Transmission System Operators of the Coordinated Balancing Area when Operational Security is endangered; and

Article 25

THE USE OF STANDARD AND SPECIFIC PRODUCTS

1. Each Transmission System Operator shall use Standard Products and Specific Products when available in order to:
 - (a) maintain system balance in the respect of the Network Code on Load-Frequency Control and Reserves; and
 - (b) ensure Operational Security.

Article 26

CONVERSION OF PRODUCTS

1. Connection Transmission System Operators using Specific Products for the Balancing of the system shall have the right to convert these products into Standard Products used in the relevant Coordinated Balancing Area and submit them to the Activation Optimisation Function or the Reserves Procurement Optimisation Function.
2. The process of converting these products as defined in this Article shall be fair, transparent and non-discriminatory and shall not undue limit Exchange of Balancing Services.

Article 27

MODIFICATION OF BIDS

1. Transmission System Operators operating Central Dispatch Systems shall have the right to use Integrated Scheduling Process Bids for the purpose of Exchange of Balancing Services.
2. Transmission System Operators operating Central Dispatch Systems shall have the right to modify Integrated Scheduling Process Bids for the purpose of Exchange of Balancing Services and ensuring Operational Security.
3. Integrated Scheduling Process Bids modified by Transmission System Operators operating Central Dispatch Systems for the purpose of Exchange of Balancing Services shall be compatible with Standard Products or Specific Products exchanged in Coordinated Balancing Area.

4. The process of modifying Integrated Scheduling Process Bids as defined in this Article shall be fair, transparent and non-discriminatory, shall not unduly limit Exchange of Balancing Services and shall be included in the terms and conditions related to Balancing, pursuant to Article 22.

Article 28 **BALANCING ENERGY GATE CLOSURE TIME**

1. Balancing energy gate closure time is the point in time when submission or update of a Balancing Energy Bid for a Coordinated Balancing Area is no longer permitted. After the balancing energy gate closure time the volume and price of Balancing Energy Bids can only be changed with approval of all Transmission System Operators of the corresponding Coordinated Balancing Area.
2. All Transmission System Operators of a Coordinated Balancing Area shall commonly define and agree on balancing energy gate closure times.
3. The balancing energy gate closure time shall be defined for each Balancing Energy Standard Product per Coordinated Balancing Area.
4. A balancing energy gate closure time:
 - (a) shall for manually activated Balancing Energy Bids be after the Intraday Cross Zonal Gate Closure Time and avoid cross zonal intraday market taking place at the same time;
 - (b) could for automatically activated Balancing Energy Bids be before the Intraday Cross Zonal Gate Closure Time;
 - (c) shall ensure sufficient time for common processing of Balancing Energy Bids; and
 - (d) shall ensure sufficient time for all Transmission System Operators of a Coordinated Balancing Area to perform all processes linked to the Activation of Balancing Energy Bids.
5. Unexpected unavailable volumes of Balancing Energy Bids of a Balancing Service Provider after the balancing energy gate closure time shall be reported to the Connection Transmission System Operator without delay. Connection Transmission System Operators shall qualify such bids as invalid within the relevant Common Merit Order Lists.
6. Each Transmission System Operator operating a Central Dispatch System shall define Integrated Scheduling Process gate closure times for its Responsibility Area. Integrated Scheduling Process gate closure time is the point in time when submission or update of an Integrated Scheduling Process Bid for a Responsibility Area or where appropriate Scheduling Area is no longer permitted. After the Integrated Scheduling Process gate closure time the volume and price of Integrated Scheduling Process Bids can only be changed with approval of Connection Transmission System Operator.

Article 29 **FALL-BACK PROCEDURES**

1. Each Transmission System Operator shall ensure that robust and timely fall-back solutions are in place to ensure efficient, transparent and non-discriminatory functioning of the Balancing Market in case the normal procedures fail.

2. In case the procurement of Balancing Services fails prior to the Validity Period, all Transmission System Operators of a Coordinated Balancing Area shall use their best endeavours to perform repetition of the procurement process while respecting the objectives of this Network Code. Transmission System Operators shall use their best endeavours to inform Market Participants that fall-back procedures are used as soon as reasonably practicable. In case the coordinated Activation of Balancing Energy fails, Transmission System Operators may bypass the Common Merit Order List activation.
3. The use of fall-back procedures shall not affect a Transmission System Operator's right to perform any necessary actions to ensure Operational Security according to the Network Code on Operational Security and national legislation.

SECTION 2
PROCUREMENT OF BALANCING CAPACITY WITHIN A RESPONSIBILITY AREA

Article 30
GENERAL PROVISIONS

1. This Article applies to a Transmission System Operators procuring Balancing Capacity to fulfil dimensioning rules pursuant to the Network Code on Load-Frequency Control and Reserves.
2. All Transmission System Operators shall use a market-based method for the procurement of at least Frequency Restoration Reserves and Replacement Reserves.
3. All Transmission System Operators shall have the right to contract for the procurement of Balancing Capacity for a maximum period of one year and for a maximum of one year in advance of the provision of the Balancing Capacity. Contracts for the procurement of Balancing Capacity for longer than one year and one year in advance of the provision of the Balancing Capacity are subject to regulatory approval.
4. Procurement of upward and downward Balancing Capacity shall be done through separate processes. Procurement processes linking upward and downward Balancing Capacity shall be possible:
 - (a) for Frequency Containment Reserves; or
 - (b) subject to regulatory approval.

Article 31
TRANSFER OF BALANCING CAPACITY WITHIN A RESPONSIBILITY AREA OR WHERE
APPROPRIATE SCHEDULING AREA

1. Transmission System Operators shall allow a Balancing Service Provider to perform a Transfer of Balancing Capacity to another Balancing Service Provider within the same Responsibility Area or where appropriate Scheduling Area.
2. Transfer of Balancing Capacity shall only be possible if the transfer receiving Balancing Service Provider has successfully passed the relevant pre-qualification stage for the Balancing Capacity for which the transfer is performed.
3. Transfer of Balancing Capacity shall be valid only if approved by a Transmission System Operator of the same Responsibility Area or where appropriate Scheduling Area.

SECTION 3
PROCUREMENT OF A BALANCING CAPACITY WITHIN A COORDINATED BALANCING AREA

Article 32
GENERAL PROVISIONS

1. This Article applies to Transmission System Operators participating in a Coordinated Balancing Area declared for the Exchange of Balancing Capacity in order to perform the Exchange of Reserves pursuant to the Network Code on Load-Frequency Control and Reserves with another Transmission System Operator.
2. Each Transmission System Operator shall have the right to procure Balancing Capacity commonly with another Transmission System Operator up to limits for the Exchange of Reserves pursuant to the Network Code on Load-Frequency Control and Reserves.
3. All Transmission System Operators performing Exchange of Balancing Capacity shall ensure availability of Cross Zonal Capacity either by:
 - (a) using the Probabilistic Approach, or
 - (b) reservation of Cross Zonal Capacity according to CHAPTER 4 SECTION 1 of this Network Code.
4. Transmission System Operators using the Probabilistic Approach shall inform all Transmission System Operators of the LFC block how the risk of unavailability of contracted reserves in the area of the Requesting Transmission System Operator is affected due to this approach and how the requirements pursuant to Article 46(2)(b) of the Network Code on Load-Frequency Control and Reserves Code are fulfilled.
5. Transmission System Operators shall not increase Reliability Margin due to Exchange of Balancing Capacity or Sharing of Reserves, beyond the Reliability Margin defined pursuant to Article 25 in the Network Code on Capacity Allocation and Congestion Management.
6. All Transmission System Operators pursuant to paragraph 1 shall use a market-based method for the procurement of Balancing Capacity to be exchanged.
7. All Transmission System Operators shall have the right to contract for the procurement of Balancing Capacity for a maximum period of one month and a maximum of one month in advance of the provision of the Balancing Capacity. Contracts for the procurement of Balancing Capacity for longer than one month and one month in advance of the provision of the Balancing Capacity are subject to regulatory approval.
8. Procurement of upward and downward Balancing Capacity shall be done through separate processes. Procurement processes linking upward and downward Balancing Capacity shall be possible:
 - (a) for Frequency Containment Reserves; or
 - (b) subject to regulatory approval.
9. Transmission System Operators within a Coordinated Balancing Area pursuant to paragraph 1 shall harmonise procurement processes for the given Balancing Capacity.
10. Transmission System Operators within a Coordinated Balancing Area shall define a pricing method used in the common procurement. The pricing method shall:
 - (a) give correct price signals and right incentives to Market Participants;

- (b) strive for an economically efficient use of Demand Side Response and other Balancing resources subject to Operational Security limits;
 - (c) enable Balancing Service Providers to establish a market-based bid pricing;
 - (d) ensure that there are no significant distortions between adjacent Coordinated Balancing Areas.
11. All Transmission System Operators of a Coordinated Balancing Area for the Exchange of Balancing Capacity shall submit all Balancing Capacity Bids for Standard Products to the Reserves Procurement Optimisation Function. Transmission System Operators shall not modify or withhold any Balancing Capacity Bids and shall include them in the common procurement, except as permitted by Article 26 and Article 27.
 12. Procurement shall be performed by the Reserves Procurement Optimisation Function and shall aim to minimise the overall procurement costs for all commonly procuring Transmission System Operators respecting Operational Security constraints, particularly taking costs for ensuring availability of Cross Zonal Capacity for Balancing Capacity pursuant to CHAPTER 4 SECTION 1 into account.

Article 33

TRANSFER OF BALANCING CAPACITY WITHIN A COORDINATED BALANCING AREA

1. Transmission System Operators shall allow a Balancing Service Provider to perform a Transfer of Balancing Capacity to another Balancing Service Provider within the same Coordinated Balancing Area.
2. Transfer of Balancing Capacity shall only be possible if the transfer receiving Balancing Service Provider has successfully passed the relevant pre-qualification stage for the Balancing Capacity for which the transfer is performed.
3. Transfer of Balancing Capacity shall be valid only if approved by the affected Transmission System Operators of the Coordinated Balancing Area.
4. When approving the transfer, Transmission System Operators shall commonly verify security constraints, in particular, limits pursuant to the Network Code on Load-Frequency Control and Reserves and pursuant to Article 32(3).
5. Transfer of Balancing Capacity shall only be possible if Cross-Zonal Capacity is acquired pursuant to Article 32(3).

Article 34

TRANSITIONAL PROCUREMENT OF BALANCING CAPACITY FOR FREQUENCY RESTORATION RESERVES AND REPLACEMENT RESERVES IN THE FORM OF A TSO-BSP MODEL

1. Each Transmission System Operator and each Balancing Service Provider may, upon request made as from the date of the entry into force of this Network Code, be exempted, for the Exchange of Balancing Capacity of Frequency Restoration Reserves and Replacement Reserves, from the application of the following provisions: Article 19(3), Article 19(6) Article 47(7). In case the exemption is granted, they shall establish contractual arrangements in the form of a TSO-BSP Model, under the following conditions:
 - (a) settlement between Transmission System Operators pursuant to SECTION 3 of CHAPTER 5 shall be applicable, ensuring a fair distribution of costs and benefits resulting from Exchange of Balancing Capacity;

- (b) a Cost-Benefit Analysis shall be performed by the contracting Transmission System Operator indicating Social Welfare implications of the application of a TSO-BSP Model for the procurement of Balancing Capacity for at least the Responsibility Area of the contracting and Connection Transmission System Operator;
 - (c) an agreement between the contracting Transmission System Operator and the Connection Transmission System Operator about technical and contractual requirements and the settlement of Balancing Services shall be established;
 - (d) the request for transitional exemptions is approved by both National Regulatory Authorities of the Responsibility Area of the contracting Transmission System Operator and the Connection Transmission System Operator;
 - (e) a methodology for ensuring available sufficient Cross Zonal Capacity shall be developed; and
 - (f) a compensation mechanism for the use of Cross Zonal Capacity for the Exchange of Balancing Capacity under this Article shall be developed.
2. Every request for exemption shall contain:
 - (a) the detailed reasons for the exemption, including the financial information justifying the need for the exemption; and
 - (b) the Cost-Benefit Analysis undertaken pursuant to Article 64.
 3. No later than six years after entry in to force of this Network Code for all Coordinated Balancing Area for the Exchange of Balancing Capacity of Frequency Restoration Reserves and Replacement Reserves the TSO-TSO Model for FRR and RR shall be obligatory.

SECTION 4 PROCUREMENT OF BALANCING ENERGY

Article 35 GENERAL PROVISIONS

1. All Transmission System Operators shall harmonise the pricing methods for at least each Balancing Energy Standard Product, which shall:
 - (a) give correct price signals and incentives to Market Participants;
 - (b) take markets of previous timeframes into account;
 - (c) strive for an economically efficient use of Demand Side Response and other Balancing resources subject to Operational Security limits; and
 - (d) enable Balancing Service Providers to establish a market-based bid pricing.
2. No later than one year after the entry into force of this Network Code, all Transmission System Operators shall develop an initial proposal for the pricing methods of each Balancing Energy Standard Product and submit it for regulatory approval pursuant to Article 7. The initial pricing methods shall be based on marginal pricing (pay-as-cleared), unless Transmission System Operators provide all National Regulatory Authorities with a detailed analysis demonstrating that a different pricing method is more efficient for European-wide implementation in pursuing the general objectives defined in Article 10.
3. Based on the experiences gained with the application of the pricing methods all Transmission System Operators shall have the right to review the pricing methods of each Balancing Energy Standard Product and submit an updated proposal to all National Regulatory Authorities.

4. All Transmission System Operators of a Coordinated Balancing Area shall apply the pricing methods developed under paragraph 2 for each Standard Product for Balancing Energy exchanged within the Coordinated Balancing Area.
5. Transmission System Operators of a Coordinated Balancing Area shall have the right to apply a different pricing method than the one described in paragraph 2, provided that a detailed analysis demonstrates that this different pricing method is more efficient within this Coordinated Balancing Area in pursuing the general objectives defined in Article 10 and subject to regulatory approval.
6. Notwithstanding paragraph 2, each Transmission System Operator shall have the right to apply a different pricing method for any Balancing Energy Standard Product provided that the Transmission System Operator does not participate in a Coordinated Balancing Area for this Standard Product for Balancing Energy.

SECTION 5
ACTIVATION OF THE BALANCING ENERGY

Article 36
GENERAL PROVISIONS

1. No later than specified in CHAPTER 2 SECTION 2 for all relevant targets, all Transmission System Operators of a Coordinated Balancing Area shall establish an Activation Optimisation Function and define rules for its operation.
2. All Transmission System Operators of a Coordinated Balancing Area shall commonly define activation purposes of Balancing Energy Bids pursuant to Article 11(2)(j). For the different activation purposes, predefined reasons shall be commonly defined. The purpose for every activated Balancing Energy Bid shall be submitted with the predefined reason to the Activation Optimisation Function and shall be visible for all participating Transmission System Operators. Balancing Energy Bids for automatic Frequency Restoration Reserves shall be exclusively available for the purpose to maintain the active power balance.
3. In the event that the Activation of Balancing Energy for Balancing purposes deviates from the merit order activation mechanism, the Transmission System Operator shall publish information on the occurrence in a timely manner.
4. The Activation of Balancing Energy by all Transmission System Operators of a Coordinated Balancing Area shall entail the acceptance of a firm Balancing Energy Bid by the Requesting Transmission System Operator. Such acceptance qualifies activated Balancing Energy for settlement.
5. The Activation of Balancing Energy shall be based on a TSO-TSO Model.
6. Each Transmission System Operator of a Coordinated Balancing Area shall submit all necessary data for the operation of the algorithm pursuant Article 61(3) to the Activation Optimisation Function in accordance with the rules developed pursuant to paragraph 1.
7. Each Transmission System Operator shall have the right to define a methodology for the calculation of Unshared Bids, while respecting the following principles:
 - (a) the amount of Unshared Bids shall not be higher than the Reserve Capacity;
 - (b) Unshared Bids shall be the most expensive available bids;

- (c) the amount of Unshared Bids shall be subject to regulatory approval;
 - (d) the amount of Unshared Bids shall be updated at least on a yearly basis; and
8. Each Connection Transmission System Operator shall submit to the Activation Optimisation Function all standard Balancing Energy Bids received from Balancing Service Providers, taking into account the provisions of Article 25, with the exception of Unshared Bids.
 9. Each Requesting Transmission System Operator shall have the right to request the Activation of Balancing Energy from the Common Merit Order Lists of the respective Coordinated Balancing Area up to the total volume of all Balancing Energy Bids submitted by the Requesting Transmission System Operator for that Delivery Period and Standard Product to the Activation Optimisation Function.
 10. The limitation as defined in paragraph 9 shall not be applicable in cases all Transmission System Operators of the relevant Coordinated Balancing Area agreed on. In any case, each Transmission System Operator requesting Balancing Energy beyond this limitation, all other Transmission System Operators of the relevant Coordinated Balancing Area shall be informed in a timely manner.
 11. In case of Sharing of Reserves, the Requesting Transmission System Operator shall have the right to request additional volumes to the volumes defined in paragraph 9. These additional volumes shall not exceed the shared Balancing Capacity volumes and may not be used in case the other Transmission System Operator participating in the Sharing of Reserves is already using these shared volumes.

Article 37

ACTIVATION MECHANISM OF BALANCING ENERGY

1. The Activation Optimisation Function operating the algorithm pursuant to Article 61(3) shall optimise the Activation of Balancing Energy from a Common Merit Order List through a non-discriminatory, fair, objective and transparent mechanism by optimisation of the use of Balancing resources and of the transmission infrastructure and minimises the costs of Balancing respecting Operational Security constraints, particularly taking into account:
 - (a) limits and restrictions for the Exchange of Balancing Energy pursuant to the Network Code on Load-Frequency Control and Reserves; and
 - (b) technical and network constraints.
2. Common Merit Order Lists shall consist of Balancing Energy Bids from Standard Products for Balancing Energy. All Transmission System Operators of a Coordinated Balancing Area shall define the necessary Common Merit Order Lists based on the Standard Products. Upward and downward Balancing Energy Bids shall be separated in different Common Merit Order Lists.
3. Each Activation Optimisation Function shall establish at least one Common Merit Order List for upward Balancing Energy Bids and one Common Merit Order List for downward Balancing Energy Bids.
4. Depending on the requirement for Standard Products for Balancing Energy, Transmission System Operators shall have the right to create more Common Merit Order Lists.
5. Each Transmission System Operator of a Coordinated Balancing Area shall submit all Balancing Energy Bids compliant with the terms and conditions related to Balancing pursuant

to Article 22 to the Activation Optimisation Function prior to the Gate Closure Time of Transmission System Operator Energy Bid Submission. Transmission System Operators shall not modify or withhold bids from Balancing Service Providers, except as permitted by Article 26 and Article 27.

6. Each Transmission System Operator shall submit their Activation of Balancing Energy requests for Standard Products to the Activation Optimisation Function.
7. The Matched Bids from the Activation Optimisation Function shall be activated by the Connection Transmission System Operators of the respective Coordinated Balancing Area
8. The Activation Optimisation Function shall submit confirmation of Matched Bids to the Transmission System Operator, requesting the Activation of Balancing Energy. The activated Balancing Service Providers shall be responsible for delivering the requested volume prior to the end of the Delivery Period.
9. All Transmission System Operators of a Coordinated Balancing Area shall have the right to establish an Activation Optimisation Function in accordance with Article 24 and Article 36 for the optimisation of the Activation of Balancing Energy from different Common Merit Order Lists. This function shall at least take into account:
 - (a) activation processes and technical constrains from different Balancing products;
 - (b) Operational Security;
 - (c) all Balancing Energy Bids included in the compatible Common Merit Order Lists;
 - (d) submitted activation requests of all Transmission System Operators of a Coordinated Balancing Area; and
 - (e) available Cross Zonal Capacity.

CHAPTER 4

CROSS ZONAL CAPACITY FOR BALANCING SERVICES

SECTION 1

CROSS ZONAL CAPACITY FOR THE EXCHANGE OF BALANCING CAPACITY AND SHARING OF RESERVES

Article 38

RESERVATION OF CROSS ZONAL CAPACITY FOR TRANSMISSION SYSTEM OPERATORS

1. Transmission System Operators shall have the right to reserve Cross Zonal Capacity for the Exchange of Balancing Capacity or Sharing of Reserves products when socio-economic efficiency is proved in accordance with this Section using one of the following approaches:
 - (a) co-optimisation process pursuant to Article 40;
 - (b) market-based reservation process pursuant to Article 41;
 - (c) reservation based on socio-economic analysis, pursuant to Article 43.
2. Cross Zonal Capacity reserved for Exchange of Balancing Capacity or Sharing of Reserves shall be included as previously allocated Cross Zonal Capacity in calculations of Cross Zonal Capacity and shall neither fall under the Use-it-or-sell-it (UIOSI) nor Use-it-or-lose-it (UIOLI) principle.
3. Transmission System Operators shall release the amount of reserved Cross Zonal Capacity that is not any longer needed for Balancing.
4. The pricing method for reserved Cross Zonal Capacity shall provide an adequate compensation for Cross Zonal Capacity, based on either:
 - (a) the price settled in the auction for Cross Zonal Capacity for exchange of energy for the timeframe where reservation is executed, as described in Article 40, or
 - (b) the forecasted or actual market values for Cross Zonal Capacity in the relevant timeframe, as described in Article 39.

Article 39

CALCULATION OF MARKET VALUE OF CROSS ZONAL CAPACITY

1. The market value of Cross Zonal Capacity for Exchange of Balancing Capacity or Sharing of Reserves or for the exchange of energy used in a co-optimisation process or in a market-based reservation process shall be based on actual or forecasted market values of Cross Zonal Capacity calculated pursuant to this Article.
2. The actual market value of Cross Zonal Capacity for exchange of energy shall be calculated based on the bids by Market Participants in the auctions for Cross Zonal Capacity for exchange of energy.
3. The actual market value of Cross Zonal Capacity for Exchange of Balancing Capacity or Sharing of Reserves used in the co-optimisation process or the market-based reservation process shall be calculated based on Balancing Capacity Bids, submitted to the Reserves Procurement Optimisation Function pursuant to Article 32(9).
4. The methodology to forecast the market value of Cross Zonal Capacity shall be based on one of the following principles:

- (a) the use of transparent market indicators that disclose the market value of Cross Zonal Capacity; or
- (b) the use of forecasting methodology that enable reliable assessment of the market value of Cross Zonal Capacity; or
- (c) any other methodology that ensures reliable assessment of the market value of Cross Zonal Capacity.

Article 40

METHODOLOGY OF A CO-OPTIMISATION PROCESS

1. Transmission System Operators shall have the right to develop a methodology for the co-optimisation process of Cross Zonal Capacity for Exchange of Balancing Capacity or Sharing of Reserves.
2. Transmission System Operator shall bid the actual market value of Cross Zonal Capacity for Exchange of Balancing Capacity or Sharing of Reserves, as described in Article 39, into auctions for Cross Zonal Capacity for exchange of energy for the relevant timeframe.
3. Transmission System Operators shall reserve the allocated Cross Zonal Capacity due to these auctions for the Exchange of Balancing Capacity or Sharing of Reserves.

Article 41

METHODOLOGY FOR A MARKET-BASED RESERVATION

1. Transmission System Operators shall have the right to develop a methodology for the market-based reservation process of Cross Zonal Capacity for Exchange of Balancing Capacity or Sharing of Reserves.
2. The Cross Zonal Capacity reservation methodology for Exchange of Balancing Capacity or Sharing of Reserves shall be based on a comparison of the actual market value of Cross Zonal Capacity for Exchange of Balancing Capacity or Sharing of Reserves, and the forecasted market value of Cross Zonal Capacity for exchange of energy, calculated as described in Article 39.

Article 42

METHODOLOGY FOR A RESERVATION BASED ON A SOCIO-ECONOMIC ANALYSIS

1. Transmission System Operators shall have the right to develop a methodology for a reservation of Cross Zonal Capacity for Exchange of Balancing Capacity or Sharing of Reserves based on a socio-economic analysis.
2. The Cross Zonal Capacity reservation methodology for Exchange of Balancing Capacity or Sharing of Reserves shall be based on either:
 - (a) a comparison of the forecasted market value of Cross Zonal Capacity for Exchange of Balancing Capacity or Sharing of Reserves, and the forecasted market value of Cross Zonal Capacity for exchanges of energy, calculated as described in Article 39; or
 - (b) a comparison of costs and benefits of reserving Cross Zonal Capacity.

Article 43

RESERVATION OF CROSS ZONAL CAPACITY FOR BALANCING SERVICE PROVIDER

1. Balancing Service Providers which have been allocated Cross Zonal Capacity are allowed to reserve this Cross Zonal Capacity for Exchange of Balancing Capacity prior to the day ahead timeframe when a TSO-BSP model, pursuant to Article 34, is applied.
2. Physical Transmission Right holders shall nominate the Cross Zonal Capacity used for Exchange of Balancing Capacity as reserved in compliance with the nomination rules defined by the System Operators issuing the relevant Physical Transmission Rights respecting the requirements of the Network Code Forward Capacity Allocation. The volume nominated as reserved is released from the Use-it-or-sell-it (UIOSI) or Use-it-or-lose-it (UIOLI) principle.
3. If updated information reveals that reserved Cross Zonal Capacity is not any longer needed for the Exchange of Balancing Capacity, it shall be released.

SECTION 2

CROSS ZONAL CAPACITY FOR THE EXCHANGE OF BALANCING ENERGY

Article 44

USE OF CROSS ZONAL CAPACITY FOR THE EXCHANGE OF BALANCING ENERGY

1. Each Transmission System Operator shall have the right to use Cross Zonal Capacity Cross-Border Replacement Reserve Activation Process or the Cross-Border Frequency Restoration Reserves Activation Process or Imbalance Netting Process where Cross Zonal Capacity is:
 - (a) available after the Intraday Cross Zonal Gate Closure Time; or
 - (b) reserved for Balancing Capacity, in accordance with CHAPTER 4 SECTION 1.

Article 45

CALCULATION OF CROSS ZONAL CAPACITY FOR THE EXCHANGE OF BALANCING ENERGY

1. All Transmission System Operator shall use the available Cross Zonal Capacity after gate closure of intraday timeframe, pursuant to Article 44, as the initial available Cross Zonal Capacity, if no other methodology is developed.
2. All Transmission System Operators of a Coordinated Balancing Area shall ensure that the available Cross Zonal Capacity are adjusted in sufficient time when Cross Zonal Capacity change due to activation of Balancing Energy.
3. All Transmission Operators are entitled to develop another methodology for calculations of Cross Zonal Capacity for exchange of Balancing Energy, subject to regulatory approval.
4. The relevant information on the availability of Cross Zonal Capacity shall be provided and updated directly by the relevant Transmission System Operators.

Article 46

PRICING OF CROSS ZONAL CAPACITY FOR THE EXCHANGE OF BALANCING ENERGY

1. Cross Zonal Capacity used for the Exchange of Balancing Energy shall be priced consistently with pricing methods for the exchange of energy in the intraday timeframe and shall provide an adequate compensation for Cross Zonal Capacity.
2. All Transmission System Operators are entitled to develop another methodology for pricing of Cross Zonal Capacity for exchange of Balancing Energy, subject to regulatory approval. The Cross Zonal Capacity shall be priced in a manner which:
 - (a) reflects Market Congestion; and
 - (b) is based on actual Balancing Energy Bids.
3. Transmission System Operators are not allowed to charge any additional charges for the exchange of Balancing Energy except charges for losses, if the charge is consistent with other timeframes and regulatory approval is granted.
4. No later than one year before its implementation, Transmission System Operators providing Cross Zonal Capacity for the Exchange of Balancing Energy shall develop the applicable pricing methods, including a congestion income distribution methodology consistent with the arrangements established under the Network Code on Capacity Allocation and Congestion Management.

CHAPTER 5 SETTLEMENT

SECTION 1 SETTLEMENT PRINCIPLES (GENERALITIES)

Article 47 GENERAL SETTLEMENT PRINCIPLES

1. The settlements principles referred to in this Chapter shall:
 - (a) establish adequate economic signals which reflect the Imbalance situation.
 - (b) ensure that Balance Responsible Parties support the system's balance in an efficient way;
 - (c) encourage Balance Responsible Parties to be balanced as close to the physical reality as possible or help the system to restore its balance;
 - (d) facilitate harmonisation of Imbalance Settlement mechanisms;
 - (e) incentivise Transmission System Operators to fulfil their obligations pursuant to the Network Code on Load-Frequency Control and Reserves in an efficient way;
 - (f) avoid distortions of incentives or counterproductive incentives to Balance Responsible Parties, Balancing Service Providers and Transmission System Operators;
 - (g) support competition among Market Participants and not unduly discriminate against Market Participants without generation or Demand Side Response;
 - (h) provide a fair distribution of the benefits and costs associated to the Balancing Markets;
 - (i) incentivise Balancing Service Providers to offer and deliver Balancing Services to the Connection Transmission System Operator in an efficient way.
2. Each National Regulatory Authority shall ensure the financial neutrality of all Transmission System Operators under its competence with regard to the financial outcome as a result of the settlement pursuant to SECTION 2, SECTION 3 and SECTION 4 of this Chapter, over the regulatory period as defined by the National Regulatory Authority.
3. Transmission System Operators shall not be allowed to use the financial outcome as a result of the settlement pursuant to SECTION 2, SECTION 3 and SECTION 4 of this Chapter to cover the cost of congestion in its Bidding Zone.
4. All Balancing Energy procured by the Connection Transmission System Operator in its Responsibility Area shall be subject to settlement pursuant to SECTION 2 of this Chapter.
5. All exchanged energy between Transmission System Operators shall be subject to settlement pursuant to SECTION 3 of this Chapter.
6. All injections and withdrawals within a Bidding Zone that are not subject to settlement pursuant to SECTION 3 shall be subject to settlement pursuant to SECTION 4 of this Chapter.
7. The procurement of Balancing Capacity pursuant to Article 30 and Article 32 shall be subject to settlement pursuant to SECTION 5 of this Chapter.
8. Transmission System Operators shall define settlements pursuant to SECTION 2, SECTION 3, SECTION 4 and SECTION 5 of this Chapter within the terms and conditions related to Balancing pursuant to Article 22.

9. Transmission System Operators shall be responsible for shortcomings in its measurements and reporting and shall provide a mechanism for reclaims to settlements with Balancing Service Providers and Balance Responsible Parties. The mechanisms shall state a maximum time period after delivery of measurements and reports within which Balancing Service Providers and Balance Responsible Parties shall have right for reclaims.
10. Transmission System Operators shall perform settlements as described in this Chapter.

DRAFT

SECTION 2
SETTLEMENT OF BALANCING ENERGY WITH BALANCING SERVICE PROVIDERS

Article 48
GENERAL PRINCIPLES FOR BALANCING ENERGY

1. Each Transmission System Operator shall establish for the settlement with Balancing Service Providers of Balancing Energy, from at least the Frequency Restoration Process and Reserve Replacement Process, a procedure for:
 - (a) calculation of activated volume of Balancing Energy based on requested or metered activation; and
 - (b) reclamation of calculation of activated volume of Balancing Energy.
2. Each Transmission System Operator shall calculate the activated volume of Balancing Energy to be used as an Imbalance Adjustment at least:
 - (a) for each Imbalance Settlement Period;
 - (b) for each Imbalance Area; and
 - (c) for each direction, with negative indicating relative withdrawal and positive indicating relative injection.

Each Transmission System Operator shall settle the activated volume of Balancing Energy with the Balancing Service Provider.

Article 49
BALANCING ENERGY FROM FREQUENCY CONTAINMENT PROCESS

1. Each Connection Transmission System Operator shall have the right to calculate and to settle the activated volume of Balancing Energy from the Frequency Containment Process with Balancing Service Providers pursuant to Article 48(2).
2. The price of activated volume of Balancing Energy from Frequency Containment Process shall be defined for each direction.

Article 50
BALANCING ENERGY FROM FREQUENCY RESTORATION PROCESS

1. Each Connection Transmission System Operator shall calculate and settle the activated volume of Balancing Energy from the Frequency Restoration Process with Balancing Service Providers pursuant to Article 48(2).
2. The volume of Balancing Energy from the Frequency Restoration Reserves to be settled by the Connection Transmission System Operator with each Balancing Service Provider shall be calculated in accordance with Article 22.
3. The price of activated volume of Balancing Energy from Frequency Restoration Process shall be defined for each direction pursuant to Article 36.

Article 51
BALANCING ENERGY FROM RESERVE REPLACEMENT PROCESS

1. Each Connection Transmission System Operator shall calculate and settle the activated volume of Balancing Energy from the Reserve Replacement Process with Balancing Service Providers pursuant to Article 48(2).
2. The volume of Balancing Energy from Replacement Reserves to be settled by the Connection Transmission System Operator with each Balancing Service Provider shall be calculated in accordance with Article 22.
3. The price of activated volume of Balancing Energy from Reserve Replacement Process shall be defined for each direction pursuant to Article 36.

Article 52
IMBALANCE ADJUSTMENT TO BALANCE RESPONSIBLE PARTY

1. Each Transmission System Operator shall calculate an Imbalance Adjustment to be applied to the concerned Balance Responsible Parties for each activated Balancing Energy Bid pursuant to Article 48(2).
2. For Imbalance Areas where several finalised Positions for a single Balance Responsible Party are determined pursuant to Article 56 an Imbalance Adjustment may be calculated per notified Position.

SECTION 3
SETTLEMENT OF EXCHANGES OF ENERGY BETWEEN TRANSMISSION SYSTEM OPERATORS

Article 53
INTENDED EXCHANGES OF ENERGY

1. No later than two years after the entry into force of this Network Code all Transmission System Operators shall develop a proposal for common settlement rules of all intended exchanges of energy as a result of:
 - (a) Cross-Border Reserve Replacement Activation Process;
 - (b) Cross-Border Frequency Restoration Activation Process with manual activation;
 - (c) Cross-Border Frequency Restoration Activation Process with automatic activation; or
 - (d) the Imbalance Netting Process.

The proposals shall be subject to regulatory approval. The approved settlement rules shall be used by concerned Transmission System Operators in Coordinated Balancing Areas for given processes.

2. Each TSO-TSO Settlement Function shall perform the settlement.
3. No later than two years after the entry into force of this Network Code, all Transmission System Operators intentionally exchanging energy within a Synchronous Area as a result of:
 - (a) the Frequency Containment Process; or
 - (b) the Ramping Period;

shall develop a proposal for common settlement rules of above mentioned intended exchanges of energy. The proposals shall be subject to regulatory approval. The approved settlement rules shall be used by concerned Transmission System Operators for given cases.

4. No later than two years after the entry into force of this Network Code, all asynchronously connected Transmission System Operators intentionally exchanging energy between Synchronous Areas as a result of:
 - (a) the Frequency Containment Process for active power output on Synchronous Area level; or
 - (b) the ramping restrictions for active power output on Synchronous Area level;shall develop a proposal for common settlement rules of above mentioned intended exchanges of energy. The proposals shall be subject to regulatory approval. The approved settlement rules shall be used by concerned asynchronously connected Transmission System Operators for given cases.
5. The proposals of common settlement rules of intended exchanges of energy between Transmission System Operators shall ensure fair and equal distribution of costs and benefits between Transmission System Operators.

Article 54

UNINTENDED EXCHANGES OF ENERGY

1. No later than two years after the entry into force of this Network Code, all Transmission System Operators shall develop a proposal for common settlement rules of all unintended exchanges of energy within a Synchronous Area s that includes:
 - (a) the price for unintended exchanges of energy withdrawn from the Synchronous Area shall reflect the prices for activated upward Balancing Energy for Frequency Restoration Process or Reserve Replacement Process for this Synchronous Area; and
 - (b) the price for unintended exchanges of energy injected into the Synchronous Area shall reflect the prices for activated downward Balancing Energy for Frequency Restoration Process or Reserve Replacement Process for this Synchronous Area.The proposals shall be subject to regulatory approval. The approved settlement rules shall be used by concerned Transmission System Operators for given cases.
2. No later than two years after the entry into force of this Network Code, all asynchronously connected Transmission System Operators shall develop a proposal for common settlement rules of all unintended exchanges of energy. The proposals shall be subject to regulatory approval. The approved settlement rules shall be used by concerned Transmission System Operators for given cases.
3. Settlement of unintended exchanges of energy between Transmission System Operators shall ensure fair and equal distribution of costs and benefits between Transmission System Operators.

SECTION 4

IMBALANCE SETTLEMENT

Article 55

IMBALANCE SETTLEMENT PERIOD

1. No later than three years after the entry into force of the Network Code , all Transmission System Operators shall submit to all National Regulatory Authorities and the Agency a Cost-Benefit Analysis, considering effects on Frequency Quality Targets Parameters pursuant to Network Code on Load-Frequency Control and Reserves, on the harmonisation of the Imbalance Settlement Period within and between Synchronous Areas.

2. Each Transmission System Operator shall have the right to submit a proposal that deviates from the decision pursuant to paragraph 1. In that event, the Transmission System Operator shall perform a Cost-Benefit Analysis pursuant to Article 64 and submit the result for regulatory approval.
3. No later than six months after receiving the Cost-Benefit Analysis the National Regulatory Authority shall submit the decision on the harmonisation of the Imbalance Settlement Period and if applicable define a date for its implementation.

Article 56 **IMBALANCE CALCULATION**

1. Each Transmission System Operator shall calculate the volume of Imbalance for each Balance Responsible Party from the final Position, the Allocated Volume and the Imbalance Adjustment.
2. Each Transmission System Operator shall define procedures for:
 - (a) the determination of the final Position from the External Commercial Trade Schedules and Internal Commercial Trade Schedules per Bidding Zone, or where appropriate one or more final Positions from the final Generation Schedules and final load schedules for each Imbalance Area;
 - (b) the determination of the Allocated Volume of all injections and withdrawals;
 - (c) the determination of the Imbalance Adjustment pursuant to Article 52 and in case of any curtailment or re-dispatch actions;
 - (d) the calculation of the volume of Imbalance;
 - (e) reclamation of calculation of volume of Imbalance by a Balance Responsible Party.
3. Allocated Volume shall not be calculated for Balance Responsible Party which does not cover injections or withdrawals.
4. Each Transmission System Operator shall calculate the final Position, the Allocated Volume, the Imbalance Adjustment and the volume of Imbalance:
 - (a) for each Imbalance Settlement Period;
 - (b) for each Imbalance Area; and
 - (c) for each direction, with negative indicating relative withdrawal and positive indicating relative injection.
5. An Imbalance shall have a size and a direction, indicating the direction of the settlement transaction between Balance Responsible Party and Transmission System Operator, with negative indicating Balance Responsible Party's withdrawal or shortage, and positive indicating Balance Responsible Party injection or surplus.

Article 57 **IMBALANCE PRICE**

1. Each Transmission System Operator shall define rules to calculate the Imbalance Price to be paid by Balance Responsible Party to the Transmission System Operator or received by Balance Responsible Party from the Transmission System Operator. The rules shall include a definition of the value of avoided Activation of Balancing Energy from Frequency Restoration Reserves or Replacement Reserves.
2. Each Transmission System Operator shall determine the Imbalance Price:

- (a) for each Imbalance Settlement Period;
 - (b) for each Imbalance Price Area; and
 - (c) for each Imbalance direction.
3. The Imbalance Price for shortage shall not be less than:
 - (a) the weighted average price for activated positive Balancing Energy for Frequency Restoration Reserves and Replacement Reserves; or
 - (b) in the event that no Activation of Balancing Energy in either direction has occurred during the Imbalance Settlement Period, the value of the avoided Activation of Balancing Energy for Frequency Restoration Reserves or Replacement Reserves.
 4. The Imbalance Price for surplus shall not be greater than:
 - (a) the weighted average price for activated negative Balancing Energy for Frequency Restoration Reserves and Replacement Reserves; or
 - (b) in the event that no Activation of Balancing Energy in either direction has occurred during the Imbalance Settlement Period, the value of the avoided Activation of Balancing Energy for Frequency Restoration Reserves or Replacement Reserves.
 5. Imbalance Settlement Price, in the event that both positive and negative Balancing Energy for Frequency Restoration Reserves or Replacement Reserves have been activated during the same Imbalance Settlement Period, shall be determine for shortage and surplus based on at least one of the principles pursuant to paragraphs 3 and 4.

SECTION 5 SETTLEMENT OF BALANCING CAPACITY

Article 58 PROCUREMENT OF BALANCING CAPACITY WITHIN A RESPONSIBILITY AREA

1. Each Transmission System Operator using Balancing Capacity Bids shall define rules for the settlement of at least Frequency Restoration Reserves and Replacement Reserves pursuant to Article 30.
2. Each Transmission System Operator using Balancing Capacity Bids shall settle at least all procured Frequency Restoration Reserves and Replacement Reserves pursuant to Article 30.

Article 59 PROCUREMENT OF A BALANCING CAPACITY WITHIN A COORDINATED BALANCING AREA

1. Transmission System Operators within a Coordinated Balancing Area shall define rules for the settlement of procured Balancing Capacity pursuant to Article 11 and pursuant to Article 32.
2. Transmission System Operators within a Coordinated Balancing Area shall settle commonly procured Balancing Capacity using the TSO-TSO Settlement Function pursuant to Article 32.

SECTION 6
SETTLEMENT AMENDMENTS

Article 60
GENERAL PRINCIPLES

1. All Transmission System Operators of a Coordinated Balancing Area shall establish a coordinated mechanism for amendments to settlements between all Transmission System Operators within a Coordinated Balancing Area, based on the principles set forth in Article 53 and Article 54.

DRAFT

CHAPTER 6

ALGORITHM

Article 61

ALGORITHM DEVELOPMENT

1. No later than one year after the entry into force of this Network Code, all Transmission System Operators shall commonly define principles for the algorithms, applied for the following functions:
 - (a) Imbalance Netting Process Function;
 - (b) Reserves Procurement Optimisation Function;
 - (c) Transfer of Balancing Capacity Function; and
 - (d) Activation Optimisation Function.
2. All Transmission System Operators of a Coordinated Balancing Area for Balancing Energy shall develop an algorithm to be applied for the Imbalance Netting Process, in accordance with the principles for the development of algorithms, developed pursuant to paragraph 1.
3. All Transmission System Operators of a Coordinated Balancing Area for Balancing Energy shall develop an algorithm to be applied for the Activation of Balancing Energy in accordance with the principles for the development of algorithms, developed pursuant to paragraph 1.
4. In the event that Transfer of Balancing Capacity is possible, all Transmission System Operators of a Coordinated Balancing Area for Balancing Capacity shall develop an algorithm to be applied for the Transfer of Balancing Capacity, in accordance with the principles for the development of algorithms, developed pursuant to paragraph 1.
5. All Transmission System Operators of a Coordinated Balancing Area for Balancing Capacity shall develop an algorithm to be applied for the common procurement of Balancing Capacity in accordance with the principles for the development of algorithms, developed pursuant to paragraph 1.

Article 62

ALGORITHM AMENDMENT

1. All Transmission System Operators of a Coordinated Balancing Area shall have the right to amend the algorithms applied.
2. Proposal for amendments of algorithms from one Transmission System Operator shall be directed to all Transmission System Operators of the relevant Coordinated Balancing Area supported by detailed information explaining and documenting the rationale for them.

CHAPTER 7

REPORTING

Article 63

REPORTING

1. ENTSO-E shall publish a report monitoring, describing and analysing the implementation of this Network Code, as well as the progress made in terms of harmonisation and integration of Balancing Markets.
2. Level of report shall vary as follows:
 - (a) every second year a detailed report shall be published;
 - (b) in years in between a simpler version of the report shall be published to review the progress made and update performance indicators, but without performing additional detailed analysis.
3. No later than six months after the entry into force of this Network Code, ENTSO-E shall define and send to the Agency its proposal concerning the years where a detailed report will be performed.
4. All Transmission System Operators shall provide input for the report.
5. The detail report shall:
 - (a) describe and analyse the harmonisation process through the evolution of Coordinated Balancing Areas, as well as the progress made in terms of harmonisation and integration of Balancing Markets through the application of this Network Code. The harmonisation process shall include for two adjacent Coordinated Balancing Areas which use the same Standard Product or Imbalance Netting Process:
 - an explanation why the Coordinated Balancing Areas do not exchange the relevant Standard Product;
 - all required changes to establish the exchange of Standard Products;
 - the progress made since the last report and the expected harmonisation between the Coordinated Balancing Areas for the following year;
 - (b) describe the evolution of Balancing resources;
 - (c) assess the progress of coordination of the Balancing Energy activation from Frequency Restoration Reserves and from Replacement Reserves; including a status of the Balancing projects in which Transmission System Operators are involved;
 - (d) assess the development of Exchange of Balancing Capacity;
 - (e) assess the compatibility between Coordinated Balancing Areas;
 - (f) assess the progress of harmonisation of Imbalance Settlement arrangements as well as the consequences and possible distortions due to non-harmonised features;
 - (g) include information concerning the volumes of available, procured and used Specific Products, as well as justification of Specific Products subject to conditions in paragraph 6 shall be included in the annual report.
 - (h) analyse the costs and benefits, and the possible inefficiencies and distortions of having Specific Products in terms of competition and market fragmentation, facilitation of Demand Side Response and participation of renewable energy sources, integration of Balancing Markets and side-effects on other electricity markets; and
 - (i) assess the progress of harmonisation of products and rules for procurement of Balancing Capacity and analyse the effects of non-harmonisation;
 - (j) include the results of Cost-Benefit Analyses pursuant to Article 64, and
 - (k) list all TSO operating a Central Dispatch System.

6. ENTSO-E shall published the report on the ENTSO-E website and submit it to the Agency no later than six months after the end of the year it refers to.
7. ENTSO-E shall define performance indicators which shall reflect:
 - (a) availability of balancing resources, including their distribution and reserved capacity
 - (b) welfare gain due to the Exchange of Balancing Services;
 - (c) benefits from the use of Standard Balancing products;
 - (d) total cost of Balancing;
 - (e) quality of Balancing composed of data on efficiency and performance of the balance, occurrence of unintended and intended exchange of energy;
 - (f) possible inefficiencies and distortions on Balancing Markets ;
 - (g) the volume and price of Balancing Energy used for Balancing purposes, both available and activated, from Standard Products and from Specific Products;
 - (h) the evolution of Balancing Service prices of the previous years; and the costs and benefits from all reservation of Cross Zonal Capacity for Balancing Services purposes;
8. All Transmission System Operators shall have right to amend the report structure, content and the performance indicators.
9. After implementation of the target models pursuant to CHAPTER 2 SECTION 2, all Transmission System Operators shall review the content and conditions of publication of the reports. Based on the outcome of that review, all Transmission System Operators shall have right to develop a new structure and timing for the publication of the reports.

CHAPTER 8

COST-BENEFIT ANALYSIS; TRANSITIONAL ARRANGEMENTS AND DEROGATIONS

Article 64 **COST-BENEFIT ANALYSIS**

1. Six months before its application, all Transmission System Operators shall submit the criteria and methodology of each Cost-Benefit Analysis for regulatory approval.
2. The Cost-Benefit Analysis shall at least consider the objectives of this Network Code set forth in Article 10, and:
 - (a) technical feasibility;
 - (b) a Social Welfare in accordance with the Network Code on Capacity Allocation and Congestion Management;
 - (c) the costs and benefits of implementation;
 - (d) the impact on European, regional and national Balancing costs;
 - (e) the potential impact on regional energy market prices; and
 - (f) the impact on market parties in terms of additional technical or IT requirements.
3. All Transmission System Operators shall provide the result of the Cost-Benefit Analysis to all National Regulatory Authorities, together with justified proposals on how to tackle possible issues with any of the targets identified by the Cost-Benefit Analysis. The proposal shall be publically consulted pursuant to Article 6. On that basis, the above mentioned National Regulatory Authorities shall decide on the way forward.

Article 65 **TRANSITION PERIOD**

1. The duration of the transition period shall be two years starting on the day of entry into force of this Network Code.
2. The transition period shall apply for Article 30 to Article 33 and Article 47 to Article 59.
3. After the transition period the requirements of the Network Code on Electricity Balancing shall also apply to agreements related to Electricity Balancing between Transmission System Operators or between a Transmission System Operator and a relevant grid user existing at the date of the entry into force of this Network Code as well as those concluded during the transitory period.

Article 66 **DEROGATIONS**

1. Each Transmission System Operator shall have right to apply for derogation in respect of one or more provisions of this Network Code by submitting a written request to the National Regulatory Authority.
2. The derogation process shall be transparent, non-discriminatory, non-biased, well documented and based on a reasoned request by the requesting Transmission System Operator demonstrating the fulfilment of the conditions pursuant to paragraph 3.

3. Derogations shall be granted to Transmission System Operators who would be unable to implement certain provisions of this Network Code within the timeframes required by this Network Code for the reasons that:
 - (a) the requesting Transmission System Operator would be, at the day of application of the provisions for which derogation is requested, in a significantly different situation from other Transmission System Operators in Europe in terms of Balancing arrangements; or
 - (b) the implementation of the provisions for which derogation is requested would result in significant problems in Balancing the Responsibility Area of the requesting Transmission System Operator.
4. The request for derogation shall be submitted six months prior to the day of application of the provisions from which derogation is requested. During the derogation process the Transmission System Operator requesting derogation shall be deemed compliant with the provision from which derogation is requested.
5. Derogation shall be granted once and for a maximum period of two years.
6. The request for derogation shall include all the following information and documents:
 - (a) provisions for which derogation is requested;
 - (b) requested derogation period;
 - (c) a detailed plan and timeline specifying how the Transmission System Operator requesting derogation intends to address the underlying reasons and intends ensure the implementation of the concerned provisions of this Network Code after expiration of the derogation period;
 - (d) assessment of the consequences of requested derogation on adjacent markets; and
 - (e) assessment of the possible jeopardies for the integration of Balancing Markets across Europe caused by the requested derogation.
7. No later than six months following the reception of request for derogation, the National Regulatory Authority shall decide on whether to grant the derogation or not. In assessing the request for derogation, the National Regulatory Authority shall consider the following aspects:
 - (a) difficulties of implementing the concerned provisions due to the specificities of the derogation requesting Transmission System Operator's situation, in terms of national Balancing arrangements; as well as risks and implications of the concerned provisions, in terms of Operational Security;
 - (b) actions taken by the derogation requesting Transmission System Operator to facilitate the implementation of the concerned provisions;
 - (c) impacts of non-implementation of the concerned provisions, in terms of non-discrimination and competition with other European Market Participants, in particular as regards Demand Side Response and renewable sources of energy;
 - (d) impacts on overall Social Welfare; and
 - (e) impacts on other Responsibility Areas and overall consequences on European market integration process.
8. The National Regulatory Authority shall notify the Agency of the reception of requests for derogation.
9. The National Regulatory Authority shall notify the Agency and the European Commission of their decision with respect to requests for derogation and publish it on its web page.

10. The National Regulatory Authority shall create and operate a register in which derogations are recorded, together with the reasons for their granting and the consequences of the derogations.

DRAFT

CHAPTER 9 FINAL PROVISIONS

Article 67 ENTRY INTO FORCE

1. This Network Code shall enter into force on the twentieth day following that of its publication in the Official Journal of the European Union.
2. This Network Code shall be binding in its entirety and directly applicable in all Member States.

DRAFT