

# DISCLAIMER

**This text contains work-in-progress material of the ENTSO-E Day Ahead Drafting Team and is therefore still subject to amendments.**

**Articles 1 and 2 are interrelated with a potential Governance Guideline**

## ENTSO-E

### **Network Code on Capacity Allocation and Congestion Management**

#### **Day Ahead Section**

**December 2011**

#### ***Notice***

The contents of this document reflect the status of ongoing work by TSO experts as of December 2011, based on the ACER framework guideline on Capacity Allocation and Congestion Management published on 29 July 2011, as well as the input of an extensive informal dialogue with stakeholders.

#### ***Disclaimer***

This draft does not represent a firm, binding and definitive ENTSO-E position on the contents, the structure, or the prerogatives of the “network code on Capacity Allocation and Congestion Management”.

## CHAPTER [...]

### ACHIEVING RELIABLE PRICES AND LIQUIDITY IN THE DAY AHEAD ELECTRICITY MARKET

#### SECTION 1: ROLES & RESPONSIBILITIES

##### Article 1

##### *Roles within the Day Ahead Electricity Market*

1. The Day Ahead electricity market shall involve the following roles:

- System Operator
- Market operator
- Capacity Coordinator
- Market Information Aggregator
- Commercial Exchange Calculator
- Central Counter Party

##### Article 2

##### *Allocation of Roles*

1. The operation of the Day Ahead electricity market shall require that each Member State has ensured that a competent entity or entities has been appointed to perform each of the roles specified in Article 1 subject to the following:

- TSOs shall be responsible for the role of System Operator;
- Power Exchanges shall be responsible for the role of Market Operator;
- TSOs shall be responsible for the following:
  - the role of Capacity Coordinator as specified in Article 12;
  - the role of Market Information Aggregator as specified in Articles 16 and 17;
  - the role of Commercial Exchange Calculator as specified in Article 10;
  - The role of Central Counter Party as specified in Article 18.

2. TSOs and Market Operators shall be entitled to appoint third parties to perform the roles above.

## SECTION 2:

### OBJECTIVES, FUNCTIONALITY & OUTPUTS FROM THE PRICE COUPLING ALGORITHM

#### Article 3

##### *Creation and Operation of the Price Coupling Algorithm*

1. Market Operators appointed under Article 2 shall develop, maintain and operate a single Price Coupling Algorithm compliant with the requirements as specified below.
2. The source code of the Algorithm shall be made publically available while respecting the intellectual property rights of the owners.

#### Article 4

##### *Algorithm Development, Functionalities, Revision & Validation*

1. System Operators shall provide Market Operators with binding requirements for the development of the Price Coupling Algorithm and, in cases where a need for amendment is identified, requirements detailing such amendments. These requirements shall specify the functionalities of the algorithm including deadlines for the delivery of market coupling results and network constraints which the algorithm shall respect.
2. Notwithstanding the requirements under paragraph 1 Market Operators shall be entitled to develop amendments to the Price Coupling Algorithm on their own initiative.
3. Prior to the introduction of the Price Coupling Algorithm and after the development of amendments to the Price Coupling Algorithm, Market Operators shall submit details of their proposal for approval to National Regulatory Authorities, provided that a positive opinion of the proposal has been previously received from System Operators. The approval procedure shall require Market Operators and/or System Operators, as the case may be, to provide analysis to the regulators, referring but not limited to the assessments of the compatibility of the proposed solution with the objectives of this regulation. National Regulatory Authorities shall consult relevant stakeholders before issuing their decision.
4. In circumstances where Market Operators, other than for overriding reasons beyond their control, do not propose an amendment of the Price Coupling Algorithm, consistent with the binding requirements provided to them by System Operators under paragraph 1, National Regulatory Authorities, following notification by System Operators shall require the Market Operators to develop and propose the amendment in question.
5. Market Operators and System Operators shall take appropriate steps to ensure the transparency and accessibility of the Price Coupling Algorithm.

6. National Regulatory Authorities and ACER shall monitor the implementation and operation of the Price Coupling Algorithm.

#### **Article 5**

##### ***Objectives of the Price Coupling Algorithm***

1. The Price Coupling Algorithm shall determine the outputs specified in Article 7 such that it:
  - Maximises economic surplus for the price coupled region for the subsequent trading day;
  - Uses the marginal pricing principle to generate a unique and reproducible result per bidding area per trading period;
  - Respects network constraints and requirements for the delivery of results provided to Market Operators by System Operators as stated in Article 4;
  - Avoids undue discrimination;
  - Has a consistently high level of availability and is repeatable and scalable;

#### **Article 6**

##### ***Inputs to the Price Coupling Algorithm***

1. The Price Coupling Algorithm shall use
  - available day ahead transfer capacities determined in accordance with Article 12
  - bids and offers submitted in accordance with Article 13

to determine the outputs specified in Article 7.

#### **Article 7**

##### ***Outputs of the price coupling algorithm***

1. The Price Coupling Algorithm shall simultaneously determine:
  - Clearing prices for each bidding area and trading period in Euros/MWh rounded to two (2) decimal places;
  - Net position for each bidding area for each trading period;
  - Bids which are cleared for each trading period.
  - The block bids which are cleared.
2. Market Operators shall be responsible for the accuracy of the results of the Price Coupling Algorithm.

**Article 8**  
**Format of bids and offers**

1. All submissions to the Price Coupling Algorithm shall be expressed in terms of Euro and shall refer to an individual Market Time Period making reference to Central European Time (CET).
2. The operation of the day ahead market shall require Market Operators to propose, consult on and implement single harmonized maximum and minimum bid prices. Markets Operators shall provide proposals to National Regulatory Authorities for approval. Such prices shall be set at a level which does not unduly constrain Market Participants' ability to set prices for their orders but shall minimise the possibility of extreme bidding area prices which are not reflective of actual market conditions.

**Article 9**  
**Products accommodated**

1. Market Operators shall ensure that the Price Coupling Algorithm is able to accommodate hourly products, multi-hour products, products covering parts of an hour and block bids.
2. Market Operators shall periodically liaise and consult with relevant stakeholders to ensure that the available products reflect market participants' needs, are reflective of power system security and promote the objectives specified in Article 5.

**Article 10**  
**Calculation of cross bidding area commercial exchanges**

1. In situations where cross bidding area commercial exchanges are required by System Operators, they shall define, amend and publish a single methodology to be used in calculating exchanges between bidding areas.
2. The calculation shall be based on net positions of bidding areas.
3. System Operators shall implement the methodology.

**Article 11**  
***Establishment of fall back procedures***

1. Market Operators shall, except for overriding reasons beyond their control, ensure that the Price Coupling Algorithm produces the results identified in Article 5 and is available at all times when required.
2. System Operators shall ensure that fallback solutions are in place to ensure efficient capacity allocation in the event that the Market Coupling Process is unable to produce results.
3. Market Operators shall facilitate the development of fallback solutions.
4. Fallback solutions shall, as far as reasonably practicable, facilitate the achievement of the objectives specified in Article 5.
5. Fallback solutions shall be subject to approval by National Regulatory Authorities.

## SECTION 3:

### THE DAY AHEAD MARKET COUPLING PROCESS

#### Article 12

##### *Capacity Calculation*

1. Capacity Coordinators shall ensure that appropriate and efficient arrangements are in place such that available Day Ahead transfer capacities between bidding areas calculated in accordance with the methods set out in [...] shall be provided to Market Operators in the forms defined in [...] as soon as reasonably practicable but in time to ensure the publication of the capacities to the market not later than 11.00 CET D-1.
2. If, for reasons beyond the reasonable control of the Capacity Coordinator(s), a Capacity Coordinator is unable to provide capacity one hour prior to the closure of the Day Ahead electricity market, that Capacity Coordinator shall notify the Market Information Aggregator which shall immediately publish a notification to all Market Participants.  
In such cases, capacity shall be provided no later than the Day-Ahead market Gate Closure Time.

#### Article 13

##### *Operation of the day Ahead Electricity Market*

1. The Day Ahead Electricity Market shall open no later than 11.00 CET D-1.
2. All bids and offers shall be submitted to the Market Operator before Day Ahead Gate Closure. The Market Operator shall ensure that all bids and offers are anonymized before being forwarded to other parties.
3. The Day-Ahead market Gate Closure Time in each bidding area shall be noon CET.

#### Article 14

##### *Delivery of results to System Operators*

1. Market Operators shall deliver the Price Coupling Algorithm results, as specified in Article 7, to System Operators, Commercial Exchange Calculators and Market Information Aggregators no later than the time specified by System Operators in their requirements according to Article 4 .

## **Article 15**

### ***Calculation of cross-bidding area commercial exchanges***

1. Where required by System Operators the Commercial Exchange Calculator shall calculate for each trading period cross bidding area commercial exchanges in MW (rounded to 1 decimal place) in accordance with the methodology set forth in Article 10 as soon as reasonably practicable.
2. The Commercial Exchange Calculator shall notify Central Counterparties, the Market Information Aggregator and System Operators of the agreed cross-bidding area commercial exchanges.

## **Article 16**

### ***Initiation of fallback procedures***

1. In the event that Market Operators, having used best endeavours, are unable to deliver part or all of the results of the Price Coupling Algorithm by the time specified in accordance with Article 4, fallback procedures as specified in Article 11 shall be invoked.
2. In cases where Market Operators are unable to deliver the results, Market Operators shall notify the Market Information Aggregator as soon as reasonably practicable. The Market Information Aggregator shall provide a notification to Market Participants that fallback procedures shall be followed.

## **Article 17**

### ***Publication of Market information***

1. The Market Information Aggregator shall publish:
  - Net positions;
  - Clearing Prices;
  - Cross bidding area commercial exchanges;
  - Day-Ahead transfer capacities

For each bidding area and for each trading period as soon as reasonably practicable following the receipt of information from the Market Operator as defined by Article 18 or Capacity Coordinators as defined by Article 12.

2. The Market Information Aggregator shall ensure that historical data for a period of not less than 5 years (where available) is available in an accessible format to market participants.

## **Article 18**

### ***Role of the Central Counter Party***

1. Any Central Counter Party appointed in accordance with Article 2 shall:
  - Clear the net positions or buy energy in bidding areas with positive net positions and sell energy in bidding areas with negative net positions;



- Transfer net revenues resulting from such transactions to relevant System Operators.
2. In the event that timing of payments is not harmonized between two bidding areas, involved Member States shall ensure an entity is appointed to manage the timing mismatch and face related costs.

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