Products that can be taken into account by NEMOs in intraday coupling process in accordance with Article 53 of the Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a guideline on capacity allocation and congestion management

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Whereas

Background

(1) These terms and conditions determine the products that can be taken into account in the single intraday coupling ('terms and conditions on SIDC products'). They are established in accordance with Article 53 of the Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a guideline on capacity allocation and congestion management ('CACM Regulation').

(2) These terms and conditions on SIDC products comply with the provisions of the Methodology for pricing intraday cross-zonal capacity as adopted in accordance with Article 55 of the CACM Regulation, which determines the implementation of intraday auctions (IDAs).

(3) These terms and conditions on SIDC products take into account the general objectives of capacity allocation and congestion management cooperation described in Article 3 of the CACM Regulation, as set out in paragraphs (4) to (10).

(4) The range of products that the NEMOs make available to the market participants as a part of SIDC promotes an effective competition in the generation, trading and supply of electricity (Article 3(a) of the CACM Regulation). To ensure that the terms and conditions on SIDC products continue to promote effective competition, the NEMOs shall consult market participants at least every two years to ensure that available products reflect their needs.

(5) The orders resulting from the SIDC products are compatible with the characteristics of the cross-zonal capacity and these terms and conditions on SIDC products help to promote the optimal allocation of cross-zonal capacity and to ensure the optimal use of the transmission infrastructure (Article 3(b) of the CACM Regulation). As all orders resulting from the available products shall be able to access the available cross-zonal capacity via the ID MCO function, these terms and conditions on SIDC products provide for non-discriminatory access to cross-zonal capacity (Article 3(j) of the CACM Regulation).

(6) These terms and conditions on SIDC products ensure operational security (Article 3(c) of the CACM Regulation), because the NEMOs can choose, which products will be supported in the SIDC and because all products allow for simultaneous allocation of energy and cross-zonal capacity. Moreover, if TSOs identify any challenge with respect to operational security they are entitled to request NEMOs to propose an amendment to these terms and conditions for ID products.

(7) The products listed in these terms and conditions on SIDC products are available for all NEMOs to be offered to their respective market participants and are all compatible with SIDC. As a result, these terms and conditions on SIDC products ensure fair and non-discriminatory treatment of TSOs, NEMOs, the Agency, regulatory authorities and market participants and respects the need for a fair and orderly market and fair and orderly price formation (Articles 3(e) and 3(h) of the CACM Regulation). For each product type, the same attributes should be applied in all bidding zones. There will be no differentiation in order characteristics to ensure a fair market.

(8) By requiring NEMOs to publish and maintain a detailed public description of the SIDC products, these terms and conditions on SIDC products shall ensure and enhance the transparency and reliability of information (Article 3(f) of the CACM Regulation). Moreover, the NEMOs should involve all stakeholders in any consultation necessary to manage changes to these terms and conditions on SIDC products or the available products.

(9) These terms and conditions on SIDC products create a level playing field for all NEMOs (Article 3(i) of the CACM Regulation), because all products listed in these terms and conditions on SIDC products can be made available to all NEMOs, and any change to the available products should be governed by all NEMOs.

(10) These terms and conditions on SIDC products contribute to the efficient long-term operation and development of the electricity transmission system and electricity sector in the Union (Article 3(g) of the CACM Regulation), because all the products allow for efficient implicit allocation of cross-zonal capacity.

Article 1

Subject matter and scope

These terms and conditions on SIDC products determine the products that can be taken into account in the SIDC in accordance with Article 53 of the CACM Regulation and include products that can be offered by NEMOs in the continuous SIDC as well as in the IDAs, in accordance with the Methodology for pricing intraday cross zonal capacity, as adopted in accordance with Article 55 of the CACM Regulation.

Article 2

Definitions

1. The terms used in these terms and conditions on SIDC products shall have the meaning given to them in Article 2 of Regulation (EU) 2019/943, Article 3 of the Regulation (EU) 2017/1485, in Article 2 of Regulation (EU) 543/2013 and Article 2 of Regulation (EU) 2015/1222.
2. In addition, the terms used in these terms and conditions on SIDC products shall have the meaning given to them in the Methodology for the price coupling algorithm, the continuous trading matching algorithm and the intraday auction algorithm, as adopted in accordance with Article 37 of the CACM Regulation; the MCO Plan, as approved in accordance with Article 7(3) of the CACM Regulation; and the Methodology for pricing intraday cross-zonal capacity, as adopted in accordance with Article 55 of the CACM Regulation.
3. In addition, the following definitions shall apply:
   a) **Acceptance Ratio**: means the minimum percentage on offered volume for which a block order can be accepted. It cannot be different for periods belonging to the same block.
   b) **Maximum Payment Condition (MP)**: means economical condition that can be associated to complex buy orders aimed at ensuring that the payment related to the order in all periods must not exceed a fixed consumption cost, which is global for the whole set of periods, and a consumption costs per MWh.
   c) **Minimum Income Condition (MIC)**: means economical condition that can be associated to complex sell orders aimed at ensuring that the income related to the order in all periods must cover at least underlying production costs, quantified by

considering the start-up cost of a power plant and operational costs per MWh of the same power plant.

d) **Scheduled Stop**: means condition that can be added to a MIC and applies when the MIC order is deactivated. It only applies to the periods defined in the condition and treats the cheapest sub-order in these periods as a standard (aggregated) market time unit (MTU) order. The purpose of this condition is to avoid abrupt stop in power generation.

Article 3

General requirements for continuous single intraday coupling products

1. Each NEMO shall publish in its market rules the list of SIDC products that are available in its NEMO trading hub separately for continuous SIDC and IDAs.

2. All orders resulting from the products submitted to the SIDC shall be expressed in euros and make reference to the market time and the MTU in the continuous SIDC and to the market time in the IDAs. NEMOs are entitled to arrange that orders submitted by market participants are expressed and settled in local currencies or euros.

Article 4

Continuous single intraday coupling products

1. On the continuous SIDC, the transaction is taking place based on a set of characteristics which are defined in a contract. The contract refers to an instrument, which is used by the market participants to enter into agreement to sell/buy a certain amount of energy having a predefined time of delivery. A product defines the guidelines ruling the generation of the contracts. The product is a template which is used as the standard for generating contracts with behaviour as defined in the product template. The relationship between the products and the contracts is that each product shall have one or multiple contracts and each contract shall belong to only one product.

2. The continuous trading matching algorithm shall support the following products or their combination, in compliance with paragraph 7:
   a) Hourly: the product supports trading in 24 power contracts, one for each hour of the calendar day. The system automatically generates these contracts and makes them available for trading one day before the delivery day at a specified time.
   b) Half-hourly: the product supports trading in 48 power contracts, one for each half-hour of the calendar day. The system automatically generates these contracts and makes them available for trading one day before the delivery day at a specified time.
   c) Quarter-hourly: the product supports trading in 96 power contracts, one for each 15-min slot of the calendar day. The system automatically generates these contracts and makes them available for trading one day before the delivery day at a specified time.
   d) User defined blocks: these are on-demand combinations of hourly, half-hourly or quarter-hourly contracts defined by the market participant. The delivery period of user defined blocks must always be coverable by multiple regular market contracts of the product and with consecutive delivery times, which must be executed together. A user-defined block order cannot be an iceberg order.

3. The continuous trading matching algorithm shall support the following order execution restrictions:
   a) NON - An order submitted with the execution restriction NON (None) is either executed immediately or, if the order can't be matched right away, entered into the order book. Partial order executions are allowed and NON orders can be executed against multiple other orders and create multiple trades.
   b) Fill or Kill (FOK) - the order is either fully traded at one point immediately after the order is submitted with its full quantity or deleted without entry in the order book. FOK orders can be matched against multiple existing orders in the order book. FOK orders cannot have a validity restriction.
   c) Immediate or Cancel (IOC) - the order is either traded (in any amount) at one point immediately after the order is submitted or, if the order can't be matched, deleted without entry in the order book. Partial executions are allowed and IOC orders can be executed against multiple other orders and create multiple trades. An order with execution restriction IOC cannot have a validity restriction.
   d) All or Nothing – (AON) - An order submitted with the execution restriction AON is either executed against exactly one other order with its full quantity or entered into the order book. Partial executions are not allowed. The execution restriction AON is only allowed for orders in the user-defined market.

4. The continuous trading matching algorithm shall support the following order validity restrictions:
   a) Good for session (GFS) – the time validity of the order is determined by the validity of the corresponding trading session of the order. The order is pulled out of the trading automatically the defined time validity of the corresponding trading session passes.
   b) Good till date (GTD) – the time validity of the order is defined by date and time. The order is pulled out of the trading automatically the defined time validity passes.

5. The continuous trading matching algorithm shall support the following order types:
   a) Regular orders (also known as Limit orders): buy or sell orders with a specified quantity and price, where buy orders can be executed at that price or lower and sell orders can be executed at that price or higher. Regular orders for the predefined market can be entered with the execution restrictions NON, FOK or IOC. Regular orders for the user-defined market always have the execution restriction AON. All regular Orders can be entered with the validity restrictions GFS or GTD.
   b) Linked Orders: in case linked order submission either all orders can be fully executed or no order will be executed. A group of orders can only be submitted with this submission restriction if it contains orders only with the execution restriction FOK and if all orders were entered for the same NEMO Trading hub.
   c) Iceberg Orders are regular orders which are only visible with part of their total quantity in the market, while their full quantity is available to the market for matching. Part of the hidden quantity shall be disclosed for trading as soon as the part that had already been disclosed has been executed.

6. The system shall automatically generate tradable commodity contracts based on the product descriptions.

7. The switching of the daylight saving times (23 and 25 hours) shall be supported.

8. Products shall be made available for trading per scheduling area, thus relevant NEMOs shall define set of products tradable in each scheduling area.

9. All products shall support trading in EUR and MW.

10. The usage and parameterisation of any individual product is a decision of each individual NEMO, subject, to the extent it has an impact on the performance of the continuous trading matching algorithm, following the principles established in the Methodology for the price coupling algorithm, the continuous trading matching algorithm and the intraday auction algorithm as adopted in accordance with Article 37 of the CACM Regulation.

Article 5

General requirements for intraday auctions

1. Demand or supply aggregated MTU orders are offers from all market participants submitted in the same bidding zone and aggregated into a single curve referred to as aggregated demand or aggregated supply curve defined for each relevant period of the day. Orders are sorted by price:
   a) demand orders are sorted from the highest price to the lowest; and
   b) supply orders are sorted from the lowest to the highest price.
2. The aggregated MTU orders can be:
   a) linear piecewise curves containing only interpolated orders (curves should be strictly monotonous i.e. two consecutive points of the same curve cannot have the same price, except for the first two points defined at the maximum / minimum prices of the bidding zone); or
   b) stepwise curves containing only step orders (curves should be monotonous i.e. two consecutive points always have either the same price or the same quantity); or
   c) hybrid curves containing both types of orders (composed by both linear and stepwise segments).
3. One demand (respectively, supply) MTU order is 'in-the-money' when the market clearing price is lower (respectively, higher) than the price of the MTU order. Any order in-the-money must be fully accepted.
4. One demand (respectively, supply) MTU order is 'out-of-the-money' when the market clearing price is higher (respectively, lower) than the price of the MTU order. Any order out-of-the-money must be rejected.
5. One demand or supply MTU order is 'at-the-money' when the price of the MTU order is equal to the market clearing price. Any order at-the-money can be either accepted (fully or partially) or rejected.

Article 6

Mandatory products for intraday auctions

1. The IDA algorithm shall support products covering one MTU:
   a) Hourly: the product supports trading power contracts, one for each hour of the calendar day.
   b) Half-hourly: the product supports trading power contracts, one for each half-hour of the calendar day.

c) Quarter-hourly: the product supports trading power contracts, one for each quarter-hour of the calendar day.

2. The IDA algorithm shall support products covering multiple MTUs by combining products, pursuant to the previous paragraph 1, in the form of simple block orders:
   a) a simple block order consists of a fixed price limit (minimum price for sales block and maximum price for purchase blocks), a minimum acceptance ratio and a volume for a number of MTUs. If volume is not the same for all periods, block is defined also as profile block;
   b) simple block orders cannot be accepted for a volume less than their minimum acceptance ratio. Acceptance ratio must be the same for all MTUs belonging to the block;
   c) For simple block orders one single price shall be calculated on the volume weighted average of the respective MTUs market clearing prices;
   d) the condition of rejection for a simple block order depends on the block volume-weighted average marginal clearing prices over all periods;
      i. sales simple block orders must be rejected if the block's volume-weighted average market clearing price is lower than the block order price;
      ii. purchase simple block orders must be rejected if the block's volume-weighted average market clearing price is higher than the simple block order price; and
      iii. a simple block order can be paradoxically rejected (not accepted in-the-money block), but not paradoxically accepted (accepted out-of-the-money block);

Article 7

Optional products for intraday auctions

1. The optional products can only be introduced to IDAs under the condition that the IDA algorithm is able to accommodate them together with all current and future requirements, while securing at least an adequate level of performance. Should the IDA algorithm's performance deteriorate below an adequate level and prevent the introduction of any requirements not yet in production or limit the usage of existing functionalities, all NEMOs shall cease the support for optional products in the IDA algorithm.
2. Optional products for intraday auctions are:
   a) **Complex block orders** are the simple block orders as defined in Article 4(2) with the following additional characteristics:
      i. linked block orders mean simple block orders in the same bidding zone can be linked together in a parent-child relation. A child block order cannot be accepted if the parent one is rejected. An out of money parent block order can be saved by one or more in-the-money children block orders (if the child's acceptance compensates, in terms of economic surplus, the loss associated to parent's acceptance);
      ii. exclusive groups of block orders mean a set of simple block orders for which the sum of the acceptance ratios cannot exceed 1; and
      iii. flexible MTU orders mean a simple block order with a duration of a single time period but for which the period is let free (not defined by the participant). The period, in which the flexible MTU order is accepted, is calculated by the algorithm and determined by the optimization criterion, which maximizes the economic surplus.
   b) **MIC orders** (respectively, MP orders) are composed by:
      i. 'N' set of MTU sub-orders (sell for MIC orders; buy for MP orders, whereas N is the number of MTUs included in a day), one set per MTU;

ii. an economic condition, which represents the minimum income (respectively, the maximum payment) expected by order's owner defined by a fix term in euros or a variable term in euros per accepted MWh.

If the economic condition is not fulfilled, the MIC (respectively, MP) order must be rejected. If the economic condition is fulfilled, the MIC (respectively, MP) order can be accepted. If the economic condition is fulfilled but the MIC (respectively, MP) order is rejected, the MIC (respectively, MP) order is then defined as paradoxically rejected.

Scheduled stop condition only applies to deactivated MIC orders and only in the periods declared as part of the scheduled stop interval by the MIC order. In case on which a MIC order is deactivated, the first MTU sub-order of the set of offers belonging to the deactivated MIC order in the MTU will remain activated and they will be accepted if they are in-the-money and could be accepted if they are at-the-money).

c) **Load gradient orders** mean sell complex orders with a condition that limits the variation between the accepted volume of an order in a MTU and the accepted volume of the same order in the adjacent MTUs, according to an increase gradient and/or a decrease one and come with or without MIC condition. Between two consecutive MTUs, the accepted volume of a load gradients order cannot vary by more than the defined gradients.

d) **Merit orders** are a 'stepwise' MTU orders per bidding zone that include a 'merit order number'. That number sets the acceptance priority between merit orders at the same price (pro-quota criteria are not applied for merit orders). Merit selling or buying orders are:
   a) cleared at their own bidding zone clearing price;
   b) must be accepted if in-the-money;
   c) must be rejected if out-the-money;
   d) can be accepted or rejected if at-the-money; and
   e) cannot be paradoxically accepted or rejected.

Article 8

Timescale for implementation

1. Upon approval of these terms and conditions on SIDC products, each NEMO shall publish them on the internet in accordance with Article 9(14) of CACM Regulation.
2. The NEMOs shall implement these terms and conditions on SIDC products immediately after their adoption, except for Articles 5 to 7 which shall be implemented in accordance with the implementation of IDAs as defined in the Methodology for the price coupling algorithm, the continuous trading matching algorithm and the intraday auction algorithm, as adopted in accordance with Article 37 of the CACM Regulation.

Article 9

Language

The reference language for these terms and conditions on SIDC products shall be English. For the avoidance of doubt, where NEMOs need to translate these terms and conditions on SIDC products into the national language(s) of a relevant national regulatory authority, in the event

of inconsistencies between the English version published by the NEMOs in accordance with Article 9(14) of the CACM Regulation and any version in another language, the relevant NEMOs shall be obliged to dispel any inconsistencies by providing a revised translation of these terms and conditions on SIDC products to the relevant national regulatory authorities.