



Reguleringsmyndigheten  
för energi

## **Vedlegg I**

### **Produktmetode for markedskoblingen i intradag**



Whereas:

- (1) These terms and conditions determine for Norway 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 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 provides for the implementation of intraday auctions ('IDAs') as a capacity allocation mechanism with reliable pricing for the intraday timeframe.
- (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 nominated electricity market operators ('NEMOs') make available to the market participants as a part of single intraday coupling ('SIDC') promotes 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 intraday market coupling operator ('IDMCO') 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 execute sufficient testing before introducing a new product or order type, because NEMOs monitor the algorithm performance with the actual combination of products in production and because all products allow for simultaneous allocation of energy and cross-zonal capacity. Moreover, if transmission system operators ('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 SIDC 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 and respect 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, both for continuous trading and intraday auctions, 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 European Economic Area ('EEA') (Article 3(g) of the CACM Regulation), because all the products allow for efficient implicit allocation of cross-zonal capacity.
- (11) These terms and conditions on SIDC products shall contribute to the proper understanding of the products offered and orders' features provided and be properly aligned with the methodology for the price coupling algorithm, the continuous trading matching algorithm and the intraday auction algorithm for Norway, as adopted in accordance with Article 37 of the CACM Regulation ('Algorithm methodology') and the public description of these algorithms. To this extent, the content of these terms and conditions on SIDC products shall be frequently updated.
- (12) Annex II, section 1.1.a.i to the Algorithm methodology requires the price coupling algorithm to be able to facilitate orders for the 15 minutes market time units ('MTU').
- (13) According to Articles 53(1), 62(2)(d) and 62(9) of Commission Regulation (EU) 2017/2195 of 23 November 2017 establishing a guideline on electricity balancing ('the EB Regulation'), the imbalance settlement period will be 15 minutes in all scheduling areas, unless regulatory authorities have granted a derogation or an exception.

## **Article 1**

### **Subject matter and scope**

1. 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. For the purpose of these terms and conditions on SIDC products, the definitions in Article 2 of 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 ('Electricity Regulation'), Article 3 of Commission Regulation (EU) 2017/1485 of 2 August 2017 establishing a guideline on electricity transmission system operation ('SO Regulation'), Article 2 of Commission Regulation (EU) 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 ('Transparency Regulation') and Article 2 of the CACM Regulation, shall apply.
2. In addition, the definitions and interpretations in Article 2 of the Algorithm methodology, as adopted in accordance with Article 37 of the CACM Regulation, the market coupling operator ('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, shall apply.
3. In addition, the following definitions shall apply:
  - (a) Curve orders are demand or supply orders submitted per time period, which define the order quantity or different order quantities for the relevant price levels. A curve order has to include at least a quantity for the minimum and the maximum price defined in accordance with Article 41 of the CACM Regulation, and may additionally include a quantity for any price in between.
  - (b) Minimum Acceptance Ratio or 'MAR' means the minimum percentage on offered quantity for which a block order can be accepted. It is the same for all time periods included in the same block.
  - (c) Maximum Payment Condition or 'MP' means economical condition that can be associated to Scalable Complex buy orders aimed at ensuring that the payment related to the order in all MTUs must not exceed a fixed consumption cost, which is global for the whole set of MTUs, and a consumption cost per MW.
  - (d) Minimum Income Condition or 'MIC' means economical condition that can be associated to Scalable Complex sell orders aimed at ensuring that the income related to the order in all MTUs must cover at least underlying production costs, quantified by considering the start-up cost of a power plant and operational costs per MW produced of the same power plant.
  - (e) Scheduled Stop means condition that can be added to a MIC and applies when the MIC order is deactivated. It only applies to the MTU defined in the condition and treats the cheapest sub-order in these MTU as a standard MTU order. The purpose of this condition is to avoid abrupt stop in power generation.

### **Article 3**

#### **General requirements for single intraday coupling products**

1. Each NEMO shall publish in its market rules the list of SIDC products and order types that are available in its NEMO trading hub(s), both for continuous SIDC and IDAs.
2. All orders submitted to the SIDC shall be expressed in euros and MW, make reference to an MTU or, in the case of Period Orders for IDAs, to a time period specified in Article 6(2(a)) and shall be submitted for a specific bidding zone and NEMO trading hub. NEMOs are entitled to arrange that orders submitted by market participants are expressed and settled in local currencies or euros.
3. 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 relevant algorithm, following the principles established in the Algorithm methodology as adopted in accordance with Article 37 of the CACM Regulation.

### **Article 4**

#### **Continuous single intraday coupling products, order types and conditions**

1. In 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 following products or their combinations, supported by the continuous trading matching algorithm, shall be available in compliance with daylight saving time:
  - (a) Hourly: the product supports trading in 24 power contracts, one for each hour of the delivery 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 delivery 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 delivery 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 following order execution restrictions, supported by the continuous trading matching algorithm, shall be available:
  - (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 following order validity restrictions, supported by the continuous trading matching algorithm, shall be available:
  - (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 following order types, supported by the continuous trading matching algorithm, shall be available:
  - (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. Products shall be made available for trading per scheduling area, thus relevant NEMOs shall define set of products tradable in each scheduling area.

## **Article 5**

### **Requirements for curve orders for intraday auctions**

1. Market participants may submit curve orders to NEMOs as:
  - (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).
2. For each relevant MTU or time period, bidding zone and NEMO trading hub, each NEMO shall aggregate all submitted curve orders separately for demand and supply.
3. NEMOs shall sort demand or supply aggregated curve orders by price:
  - (a) demand orders are sorted from the highest to the lowest price; and
  - (b) supply orders are sorted from the lowest to the highest price.
4. NEMOs shall submit the aggregated curve orders to the intraday auction algorithm as either linear piecewise curves, stepwise curves or hybrid curves in accordance with paragraph (1).
5. A demand (respectively, supply) quantity of a curve order is 'in-the-money' when the quantity's price of the curve order is higher (respectively, lower) than the arithmetic mean of the market clearing price(s) of the MTU(s) contained in the relevant time period.
6. A demand (respectively, supply) quantity of a curve order is 'out-of-the-money' when the quantity's price of the curve order market clearing price is lower (respectively, higher) than the arithmetic mean of the market clearing price(s) of the MTU(s) contained in the relevant time period. Any 'out-of-the-money' curve



order must be rejected.

7. A demand or supply quantity of a curve order is 'at-the-money' when the quantity's price of the curve order is equal to the arithmetic mean of the market clearing price(s) of the MTU(s) contained in the relevant time period. Any 'at-the-money' curve order can be either accepted (fully or partially) or rejected.

## Article 6

### Mandatory products and order types for intraday auctions

1. **MTU Orders** are curve orders with a time period of one MTU. The NEMOs shall ensure that the MTU orders are supported by the intraday auction algorithm for the IDAs, and shall make them available:
  - (a) Quarter-hourly: i.e. one for each quarter-hour of the delivery day; or
  - (b) In case of an exemption pursuant to Article 53(2) of the EB Regulation, half-hourly: (i.e. one for each half-hour of the delivery day).

Any 'in-the-money' MTU order must be fully accepted.

2. **Period Orders** are curve orders which cover multiple MTUs. The NEMOs shall ensure that the Period Orders are supported by the intraday auction algorithm for the IDAs, and shall make them available with the following characteristics:
  - (a) They can be offered for the time period of each full hour (from HH:00 to HH+1:00) of the delivery day or for each half-hour (from HH:00 to HH:30 or HH:30 to HH+1:00) of the delivery day.
  - (b) Depending on the MTU of the relevant bidding zone and the length of the period order in accordance with (a) they consist of two or four MTUs with the same quantity.
  - (c) An 'in-the-money' period order can be accepted or paradoxically rejected.
3. **Simple Block Orders (SBOs)** cover multiple MTUs or time periods of the same time resolution. The NEMOs shall ensure that the SBOs are supported by the intraday auction algorithm for IDAs, and shall make them available with the following characteristics:
  - (a) A SBO consists of a fixed price limit (block order price, minimum price for a sell block and maximum price for a buy block), a MAR and a quantity for a number of MTUs or periods. If the quantity is not the same for all MTUs or periods, the block is defined also as profile block;
  - (b) SBOs cannot be accepted for a quantity less than their MAR;
  - (c) For SBOs, one single price shall be calculated as the quantity-weighted average of the market clearing prices overall all the MTUs included in the SBO; and
  - (d) The condition of rejection for a SBO depends on the block's quantity-weighted average marginal clearing prices over all MTUs;
    - (i) a sell SBO must be rejected if the relevant SBO's quantity-weighted average market clearing price is lower than the block's order price;

- (ii) a buy SBO must be rejected if the relevant SBO's quantity-weighted average market clearing price is higher than the block's order price; and
- (iii) a SBO can be paradoxically rejected (not accepted 'in-the-money' block), but not paradoxically accepted (accepted 'out-of-the-money block').

## Article 7

### Optional products and order types for intraday auctions

1. Optional products and order types are available in the IDAs subject to the rules and governance described in the Algorithm methodology.
2. The intraday auction algorithm may support the following curve order products:
  - (a) **Merit Orders** are stepwise curve orders in accordance with Article 5(1)(b) per bidding zone that include a 'merit order number'. The 'merit order number' sets the acceptance priority between merit orders at the same price (pro-quota criteria are not applied for Merit Orders). Merit orders can only be defined in the MTU of the bidding zone in relation to which they are submitted.
3. The intraday auction algorithm may support the following other optional products:
  - (a) **Complex Block Orders** are the SBOs as defined in Article 6(3) with one or more of the following additional characteristics:
    - (i) **Linked Block Orders** means that SBOs 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** means a set of SBOs for which the sum of the acceptance ratios cannot exceed 1. Linked Block Orders with no parents may also be members of an Exclusive Group of Block Orders; and
    - (iii) a **Flexible Order** means a SBO with a duration of a single MTU or time period but for which the index is let free. The specific MTU or time period, in which the Flexible Order is accepted, is determined by the algorithm optimisation criterion, which maximises the economic surplus.

Linked Block Orders and Exclusive Group of Block Orders may combine SBOs defined under different time resolutions.

- (b) **Scalable Complex Orders ('SCO'):**
  - (i) A Scalable Complex Order can be a sell or buy order.
  - (ii) A Scalable Complex Order is composed of:
    - 'N' set of MTU sub-orders, one set per MTU, where 'N' is the

number of MTUs included in a delivery day;

- the sub-orders can only be defined in the MTU of the bidding zone they are submitted to.
- a minimum acceptance quantity, one value per MTU, which will be set to zero if not provided.
- additional conditions:
  - **MIC condition / MP condition:**
    - **MIC condition** can be defined for sell Scalable Complex Orders.
    - **MP condition** can be defined for buy Scalable Complex Orders.
  - **Load gradient condition.**
    - A combination of **MIC condition / MP condition** and **load gradient condition**.

When a Scalable Complex Order makes use exclusively of MIC/MP condition, then it can be referred as '**pure MIC/MP order**', whereas a Scalable Complex Order that makes use exclusively of load gradient condition, can be referred as '**pure Load Gradient order**'.

- (iii) The **MIC condition** (respectively, **MP condition**) in Scalable Complex Orders adds an economic condition to a sell Scalable Complex Order (respectively, buy Scalable Complex Order), which represents the minimum income (respectively, the maximum payment) expected, defined by a fix term in euros or/and the price of each sub-order in the N-set of MTU sub-orders in euros per accepted MW produced (consumed, respectively) during the MTU.
- Acceptance of Scalable Complex Orders having **MIC condition** (respectively, **MP condition**):
    - If the economic condition is not fulfilled, the Scalable Complex Order having MIC condition (respectively, MP condition) must be rejected.
    - If the economic condition is fulfilled, the Scalable Complex Order having MIC condition (respectively, MP condition) can be accepted.
    - If the economic condition is fulfilled but the Scalable Complex Order having MIC condition (respectively, MP condition) is rejected, the Scalable Complex Order having MIC condition (respectively, MP condition) is then defined as paradoxically rejected.
  - **Scheduled Stop condition** is an additional condition that can be defined for Scalable Complex Orders having MIC condition.
    - The scheduled stop condition applies to deactivated Scalable Complex Orders with MIC condition and only in the periods

declared as part of the scheduled stop interval by the Scalable Complex Order with MIC condition.

- In case in which a Scalable Complex Order with MIC condition is deactivated, the first MTU sub-order of the set of orders belonging to the deactivated Scalable Complex Order with MIC condition in the MTU defined under scheduled stop condition will remain activated and they will be accepted if they are in-the-money and could be accepted if they are at-the-money.
- (iv) **Load gradient condition** in Scalable Complex Orders adds a condition that limits the variation between the accepted quantity of an order in a MTU and the accepted quantity of the same order in the adjacent MTUs, according to an increase gradient and/or a decrease one. Between two consecutive MTUs, the accepted quantity of a Scalable Complex Order with load gradients condition cannot vary by more than the defined gradients.

## **Article 8**

### **Timescale for implementation**

1. Upon approval of these terms and conditions on SIDC products in accordance with paragraph (2), 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 the decision has been taken by the EFTA Surveillance Authority in accordance with point 47(d) of Annex IV to the EEA Agreement and subject to and as soon as the Norwegian Energy regulatory authority, RME, has taken the subsequent decision on implementation into Norwegian law.
3. All NEMOs shall reassess the classification of SIDC products into mandatory and optional products and propose amendments following the next review of these terms and conditions.

## **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.