

# MATS & ETS – Changes overview

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Paris

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## 1. Introduction

### 1.1 Audience

This document is intended for all customers (client members, API members and Market Data Customers) who will use MATS Trading system.

### 1.2 Purpose

The purpose of this document is to list and explain the key differences between ETS and MATS trading system. Where applicable, the document will highlight the specific changes related to the introduction of 15-minute Market Time Unit in SDAC<sup>1</sup>, day-ahead coupling (please refer to the label **15MTU SDAC**). This document can be used by users in order to understand the relevant changes and impacts on their processes and tools.

### 1.3 Document revision history

| Evolution | Date       | Version | Author    | Comments                                                                                      |
|-----------|------------|---------|-----------|-----------------------------------------------------------------------------------------------|
| Creation  | 18/10/2024 | 1.0     | EPEX SPOT |                                                                                               |
| Update    | 21/02/2025 | 1.1     | EPEX SPOT | - Addition of Sections 4.2, 5.1.2<br>- Modification of delivery period example in Section 2.2 |
|           |            |         |           |                                                                                               |
|           |            |         |           |                                                                                               |
|           |            |         |           |                                                                                               |
|           |            |         |           |                                                                                               |
|           |            |         |           |                                                                                               |
|           |            |         |           |                                                                                               |
|           |            |         |           |                                                                                               |
|           |            |         |           |                                                                                               |
|           |            |         |           |                                                                                               |
|           |            |         |           |                                                                                               |
|           |            |         |           |                                                                                               |
|           |            |         |           |                                                                                               |
|           |            |         |           |                                                                                               |

### 1.4 Reference documents

- MATS Fundamentals
- MATS FAQ

<sup>1</sup> Please note that, while the document refers to 15MTU in SDAC, this also addresses the changes of moving to 30MTU for customers in ROI and NI markets.

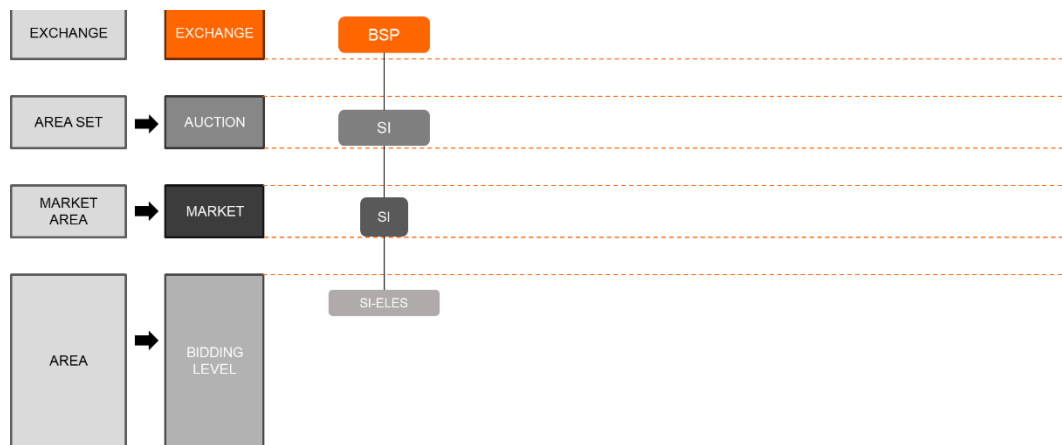
## 2. System changes

### 2.1 Naming convention and data hierarchy

Majority of the concepts between ETS and MATS will remain the same. However, there is a minor naming convention change between ETS and MATS, impacting three fields (which still represent the same elements as in ETS):

- Area Set -> Auction
- Market Area -> Market
- Area -> Bidding Level

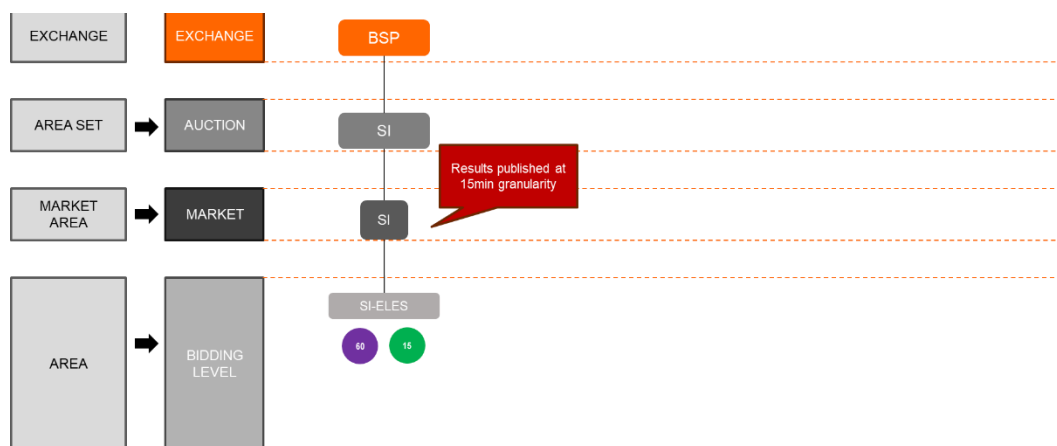
See illustrative example below.



#### 2.1.1 Impact of 15MTU in SDAC

**15MTU SDAC:** The introduction of 15MTU in SDAC will also introduce the so-called Full Cross-Product Matching functionality in MATS. This functionality does not impact the overall hierarchy, but it emphasizes the concept of multiple durations being available for order submission for each bidding level. Concretely, all bidding levels under SDAC will allow order submission in 15-, 30-, and 60-min granularity, whereas the results will always be published at 15min granularity. Users can indicate this granularity during order submission by specifying it in the field 'Duration'.

See illustrative example below.



## 2.2 Delivery periods – DST23

When submitting orders or retrieving results, users may refer to delivery periods by:

- Period sequence numbers (1,2,3,...), **mainly valid for the client users**
- Delivery periods in UTC format, **mainly valid for API users**

There is a minor difference in how ETS and MATS deal with the DST23 scenario.

| ETS                                                                                      | MATS                                                                                                     |
|------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| User can paste a grid with 24 periods (1-24), and the system will 'skip' the third hour. | Period numbers (and the order template) will follow this sequence: 1, <b>2</b> , <b>4</b> , 5, 6, 7, ... |

### 3. Order management changes

#### 3.1 Beneficiary field

For the time being, we will not be implementing the Beneficiary field, hence the changes introduced in ETS as part of this update, will not be reflect in MATS. More details will follow.

#### 3.2 [New Feature] Bulk import

This is a new feature offered by MATS system allows submitting one or multiple orders by importing<sup>2</sup> an Excel file. This feature is available for both Client and API users, but this document will explain the specifics for the Client user / Excel template that will be used. Main rule for the bulk import functionality is that it works per auction session<sup>3</sup> and per order type, meaning that you cannot combine e.g. linear and block orders, you would need separate bulk files.

Import files must respect the following structure:

- Auction (e.g. CORE, SEM-DA, GB, HU, RS, SI, ME, MK, etc.) – referenced only once in the document
- For every order that will be included in the import:
  - o Portfolio
  - o Bidding level
  - o Duration
  - o Order ID (only if overwriting existing)
  - o Currency (settlement currency in which the order is submitted)
  - o Order with its relevant information (subject to the order type)

##### 3.2.1 Impact / link with 15MTU in SDAC

**15MTU SDAC:** Users will be able to submit multiple durations (e.g. 15min and 60min) in the same file. Please see below an illustrative example for linear orders.

---

<sup>2</sup> While ETS has an 'Import' button, this button is only used for pasting orders.

<sup>3</sup> Auction session refers to the auction being run on a given auction date (e.g. 2 auction sessions: SDAC CORE auction for delivery date 26/09/2024 and GB DA1 auction for delivery date 26/09/2024).

|               |          |      |      |
|---------------|----------|------|------|
| Auction name  | Auction1 |      |      |
| Portfolio     | P1       |      |      |
| Bidding level | BL1      |      |      |
| Duration      | 60       |      |      |
| Order ID      |          |      |      |
| Currency      | EUR      |      |      |
| Comment       | Period   | -500 | 4000 |
|               | 1        | 10   | 10   |
|               | 2        | 10   | 10   |
|               | 3        | 10   | 10   |
|               | 4        | 10   | 10   |
|               | 5        | 10   | 10   |
|               | 6        | 10   | 10   |
|               | 7        | 10   | 10   |
|               | 8        | 10   | 10   |
|               | 9        | 10   | 10   |
|               | 10       | 10   | 10   |
|               | 11       | 10   | 10   |
|               | 12       | 10   | 10   |
|               | 13       | -5   | -5   |
|               | 14       | -5   | -5   |
|               | 15       | -5   | -5   |
|               | 16       | -5   | -5   |
|               | 17       | -5   | -5   |
|               | 18       | -5   | -5   |
|               | 19       | -5   | -5   |
|               | 20       | -5   | -5   |
|               | 21       | -5   | -5   |
|               | 22       | -5   | -5   |
|               | 23       | -5   | -5   |
|               | 24       | -5   | -5   |
| Portfolio     | P2       |      |      |
| Bidding level | BL1      |      |      |
| Duration      | 15       |      |      |
| Order ID      |          |      |      |
| Currency      | EUR      |      |      |
| Comment       | Period   | -500 | 4000 |
|               | 1        | 5    | 5    |
|               | 2        | 5    | 5    |
|               | 3        | 5    | 5    |
|               | 4        | 5    | 5    |
|               | 5        | 5    | 5    |
|               | 6        | 5    | 5    |
|               | 7        | 5    | 5    |
|               | 8        | 5    | 5    |
|               | 9        | 5    | 5    |

### 3.3 Excel Paste

MATS system also supports pasting orders from Excel. Users no longer need to click 'Import bid' button to perform this action, but rather paste directly into the grid.

#### 3.3.1 Linear orders

Users will need to select both 'Comment' and 'Period' columns in addition to the order grid to facilitate pasting<sup>4</sup>. System will automatically show 'Comment' column while pasting, and hide it after submission in case there are no comments.

Please see below an illustrative example of a linear order to be pasted into MATS.

<sup>4</sup> For reference, if reader is familiar with Appendix F of ETS Trader Manual, MATS accommodates so-called Configuration 2.

| Comment | Period | -500 | 4000 |
|---------|--------|------|------|
|         | 1      | 10   | 10   |
|         | 2      | 10   | 10   |
|         | 3      | 10   | 10   |
|         | 4      | 10   | 10   |
|         | 5      | 10   | 10   |
|         | 6      | 10   | 10   |
|         | 7      | 10   | 10   |
|         | 8      | 10   | 10   |
|         | 9      | 10   | 10   |
|         | 10     | 10   | 10   |
|         | 11     | 10   | 10   |
|         | 12     | 10   | 10   |
|         | 13     | -5   | -5   |
|         | 14     | -5   | -5   |
|         | 15     | -5   | -5   |
|         | 16     | -5   | -5   |
|         | 17     | -5   | -5   |
|         | 18     | -5   | -5   |
|         | 19     | -5   | -5   |
|         | 20     | -5   | -5   |
|         | 21     | -5   | -5   |
|         | 22     | -5   | -5   |
|         | 23     | -5   | -5   |
|         | 24     | -5   | -5   |

### 3.3.2 Block orders

No specific changes between ETS and MATS. Please see below an illustrative example of block orders to be pasted into MATS.

| Block Code | Block ID | BlockCodePRM | MAR | Comment | Price | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|------------|----------|--------------|-----|---------|-------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| C01        | 1        |              | 1   |         | 20    | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |    |
| C01        | 2        |              | 1   |         | 20    | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |    |
| C02        | 3        | 2            | 1   |         | 20    | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |    |
| C04        | 4        | 55           | 1   |         | 20    | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |    |
| C04        | 5        | 55           | 1   |         | 20    | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |    |
| C88        | 6        | 66           | 1   |         | 20    | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |    |
| C88        | 7        | 66           | 1   |         | 20    | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |    |

## 3.4 Linear orders – new business rules

### 3.4.1 Zero-volume point

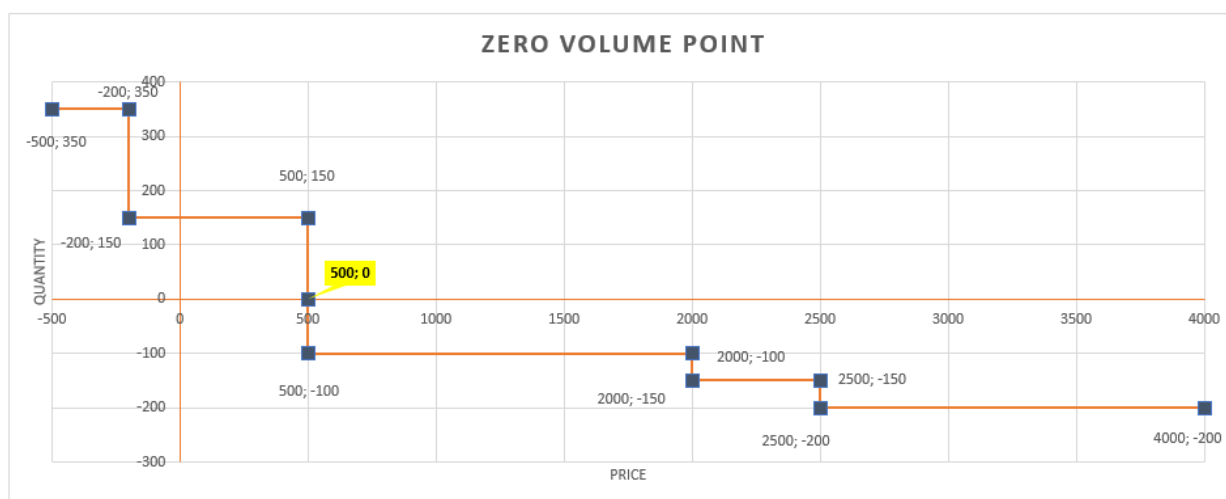
When users define curves in ETS, they may submit both demand and supply (i.e., PURCHASE and SALE) in the same curve without defining a “zero-volume” point. This may

lead to prices with a high number of decimals, which may, on some occasions, create difficulties for the algorithm.

In MATS, if a curve consists of both purchase and sale quantities, then the curve must have **a curve point with zero quantity to separate the purchase & sale quantities**.

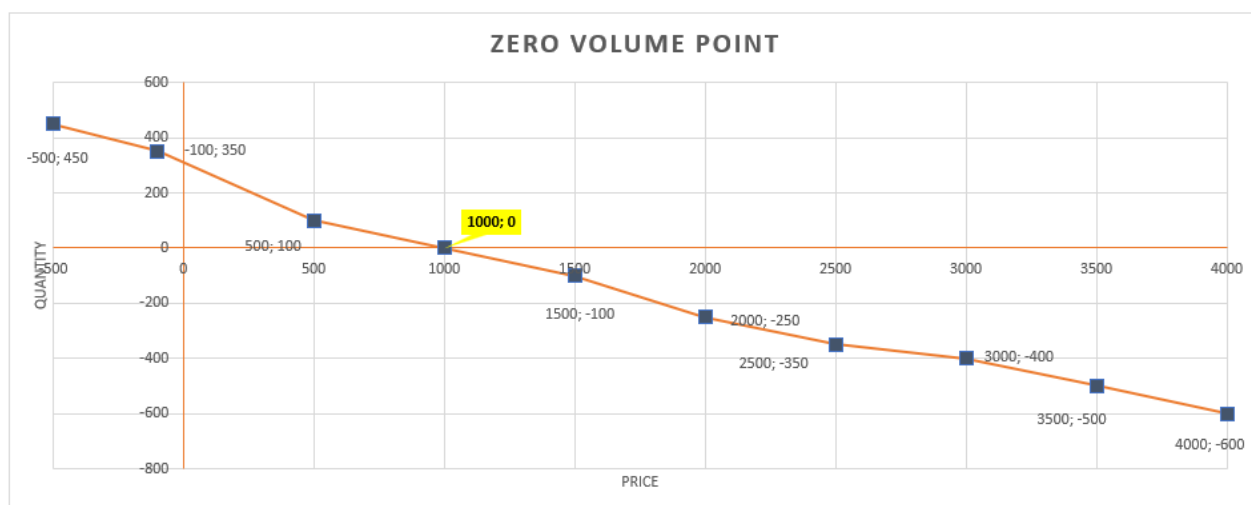
Please see below an example of a linear order curve which consists of **horizontal and vertical segments with zero quantity**. The illustration provided here is for (Portfolio, Bidding Level, Delivery Period) combination.

| Price    | -500 | -200 | -200 | 500 | 500 | 500  | 2000 | 2000 | 2500 | 2500 | 4000 |
|----------|------|------|------|-----|-----|------|------|------|------|------|------|
| Quantity | 350  | 350  | 150  | 150 | 0   | -100 | -100 | -150 | -150 | -200 | -200 |



Please see below an example of a linear order curve which consists of **oblique segments and with zero quantity**. The illustration provided here is for (Portfolio, Bidding Level, Delivery Period) combination.

| Price    | -500 | -100 | 500 | 1000 | 1500 | 2000 | 2500 | 3000 | 3500 | 4000 |
|----------|------|------|-----|------|------|------|------|------|------|------|
| Quantity | 450  | 350  | 100 | 0    | -100 | -250 | -350 | -400 | -500 | -600 |



### 3.4.2 'Blank' curves

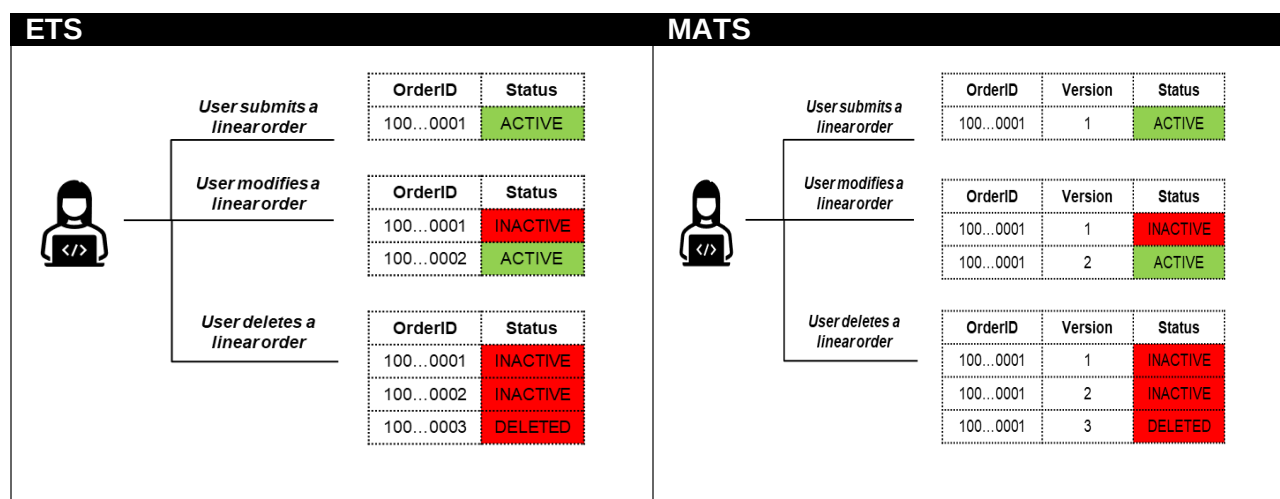
Currently in ETS, users can submit linear curves with only zero volumes as means of expressing their intent of not wanting to buy nor sell; in other words, not wanting to get executed for the given period(s). Moreover, if they skip the period while pasting from Excel, ETS will fill these curves with zeros as well. As this data is not considered during matching process, we are introducing the new rule that will reject curves with only zero volumes.

Illustrative example (when pasting from Excel)

| Comment  | Period | -500 | 200 | 1000 | 4000 |
|----------|--------|------|-----|------|------|
|          | 1      | 10   |     |      | 10   |
|          | 2      | 10   | 8   | 6    | 4    |
| my order | 3      | 8    | 5   | 4    | 3    |
|          | 6      | 8    | 4   | 0    | -4   |
|          | 10     | 8    | 6   | 4    | 2    |

### 3.5 Linear order versioning

Currently in ETS, every update of a linear order creates a new order ID and effectively replaces / deletes the previous version. In MATS, every update of a linear order will create a new version with the same order ID, which is consistent with other order types (see illustration below).



From a practical point of view, this implies that users relying on (bulk) import or API, must provide the orderID when creating a new version of the linear order. Users pasting the orders into the system are not impacted by this.

## **4. Market results' changes**

### **4.1 User permissions when viewing results**

Currently in ETS, user can see the indexes of each market belonging to a given auction, regardless of whether they are subscribed to or interested in the results of that market.

In MATS, user only sees the indexes of the market(s) to which they are subscribed. For example, if configuration for auction CORE allows the user to submit orders only for e.g. France and Belgium, those are the only two markets they will see in the results.

## 5. Reports' changes

### 5.1.1 Trade Report

Detailed specifications of MATS Trade report can be found in MATS Fundamentals document.

Table below provides an overview of differences between ETS and MATS Trade report.

| ETS Trade Report | MATS Trade Report          | Comparison difference |
|------------------|----------------------------|-----------------------|
| AreaSetName      | Auction                    | Rename                |
| AuctionName      | AuctionName                | No change             |
| AuctionDateTime  | AuctionDateTime            | No change             |
| MarketArea       | Market                     | Rename                |
| +MarketAreaName  | +MarketName                | Rename                |
| +MarketAreaIndex | +MarketIndex               | Rename                |
| ++DeliveryStart  | ++DeliveryStart            | No change             |
| ++DeliveryEnd    | ++DeliveryEnd              | No change             |
| ++PriceIndex     | ++PriceIndex               | No change             |
| +++Currency      | +++Currency                | No change             |
| +++Price         | +++Price                   | No change             |
| ++VolumeIndex    | ++VolumeIndex              | No change             |
| +TradeArea       | +BiddingLevel              | Rename                |
| ++AreaName       | ++BiddingLevelName         | Rename                |
| ++AreaTimeZone   | ++BiddingLevelTimeZone     | Rename                |
| N/A              | ++CurtailementRatioDetails | New                   |
| N/A              | +++PeriodDuration          | New                   |
| N/A              | +++Period                  | New                   |
| N/A              | ++++DeliveryStart          | New                   |
| N/A              | ++++DeliveryEnd            | New                   |
| N/A              | ++++CurtailementRatio      | New                   |

|                                |                                |           |
|--------------------------------|--------------------------------|-----------|
| ++MemberDetail                 | ++MemberDetail                 | No change |
| +++MemberName                  | +++MemberName                  | No change |
| +++Order                       | +++Order                       | No change |
| ++++OrderID                    | ++++OrderID                    | No change |
| ++++Portfolio                  | ++++Portfolio                  | No change |
| ++++OrderType                  | ++++OrderType                  | No change |
| N/A                            | ++++OrderPeriodDuration        | New       |
| ++++OrderEntryTime             | ++++OrderEntryTime             | No change |
| ++++OrderEntryUser             | ++++OrderEntryUser             | No change |
| ++++SettlementCurrency         | ++++SettlementCurrency         | No change |
| ++++BlockOrderDetail           | ++++BlockOrderDetail           | No change |
| +++++Price                     | +++++Price                     | No change |
| +++++AverageMCP                | +++++AverageMCP                | No change |
| +++++MAR                       | +++++MAR                       | No change |
| +++++AAR                       | +++++AAR                       | No change |
| +++++Status                    | +++++Status                    | No change |
| +++++BlockCode                 | +++++BlockCode                 | No change |
| +++++BlockCodePRM              | +++++BlockCodePRM              | No change |
| +++++Comment                   | +++++Comment                   | No change |
| +++++Paradoxically             | +++++Paradoxically             | No change |
| ++++ScalableComplexOrderDetail | ++++ScalableComplexOrderDetail | No change |
| +++++Paradoxically             | +++++Paradoxically             | No change |
| +++++Activation                | +++++Activation                | No change |
| ++++Period                     | ++++Period                     | No change |
| +++++OrderPeriodID             | +++++OrderPeriodID             | No change |
| +++++TradeID                   | +++++TradeID                   | No change |
| +++++DeliveryStart             | +++++DeliveryStart             | No change |

|                          |                          |               |
|--------------------------|--------------------------|---------------|
| +++++DeliveryEnd         | +++++DeliveryEnd         | No change     |
| +++++MarketClearingPrice | +++++MarketClearingPrice | No change     |
| +++++ExecutedVolume      | +++++ExecutedVolume      | No change     |
| +++++Volume              | +++++Volume              | No change     |
| +++++Beneficiary_Fields  | N/A                      | Not available |
| +++++Trading_Capacity    | N/A                      | Not available |
| +++++Beneficiary         | N/A                      | Not available |

## 5.1.2 Market Result report

|      |                                                                            |                                                        |                                                                                             |
|------|----------------------------------------------------------------------------|--------------------------------------------------------|---------------------------------------------------------------------------------------------|
| ETS  | Generic Information                                                        | Auction Information                                    | FX Rate Information                                                                         |
|      | Data provided (Market, Duration)<br>Where Duration = MTU                   | Index Information (MCP & MCV)                          |                                                                                             |
|      | Data provided (Portfolio, Area, Duration)<br>Where Duration = MTU          | Index Information (MCP & MCV)                          | Aggregated Portfolio Information                                                            |
|      | Data provided (Area, Duration)                                             | Block Order Results                                    | Scalable Complex Order Results                                                              |
|      |                                                                            |                                                        |                                                                                             |
| MATS | Generic Information                                                        | Naming convention<br>Auction Information               | FX Rate Information                                                                         |
|      | Data provided (Market, Duration)<br>Where Duration = MTU                   | Moved to market level<br>Index Information (MCP & MCV) |                                                                                             |
|      | Data provided (Portfolio, Bidding Level, Duration)<br>Where Duration = MTU | Aggregated Portfolio Information                       |                                                                                             |
|      | Data provided per (Bidding Level, Duration, Delivery Period)               | Curtailment Ratio NEW                                  |                                                                                             |
|      | Data provided (Bidding Level, Duration)                                    | Block Order Results                                    | NEW<br>Linear Order Results<br>Inclusion of orderid field<br>Scalable Complex Order Results |

### 5.1.2.1 Generic information

#### Auction information

| Column Number | ETS      | MATS    |
|---------------|----------|---------|
| 1             | Area set | Auction |

## Index information

| Column Number | ETS             | MATS                        |
|---------------|-----------------|-----------------------------|
| 1             | Period duration | Market Time Unit Resolution |

### 5.1.2.2 Market information

| Column Number | ETS         | MATS   |
|---------------|-------------|--------|
| 1             | Market area | Market |

Content-wise, no specific changes foreseen other than the changes explained in Section 4 (user permission and index naming).

### 5.1.2.3 Portfolio / Bidding level information

Index information will not be repeated in this part (as is the case for ETS), and the Aggregated portfolio information will remain the same.

**15MTU SDAC:** As this information will be expressed at MTU level, it will be available in 15min granularity after 15MTU SDAC GL.

### 5.1.2.4 Curtailment ratio information

Curtailment occurs whenever the Order Book for a given is imbalanced, i.e.:

- the Order Book does not contain sufficient Sale Orders to satisfy all the Purchase Orders submitted at maximum price or
- the Order Book does not contain sufficient Purchase Orders to satisfy all the Sale Orders submitted at minimum price.

In those cases, orders must be curtailed (the same ratio - aka curtailment ratio - is applied to either the sell or the buy orders depending on the price).

**Currently, this information is not available** to the customers in the trading system, but rather communicated via email by our Market Operations team.

### 5.1.2.5 Individual order information

All individual orders will be expressed in the duration in which they were submitted.

### Linear order results

- This is new information that does not exist in ETS Market result report. Linear order results will be expressed with three columns: Paradoxically, Paradoxically rejected volume and Executed volume. As long as the auction offers single duration, Paradoxically column will remain with value 'No' and Paradoxically rejected volume column will remain with value '0'.

**15MTU SDAC:** Introduction of 15MTU SDAC and ability to submit multiple durations will introduce the concept of Paradoxically rejected curves. This refers to the constrained situations where the algorithm might not be able to find an acceptable solution within the allowed price boundaries. In such cases, certain periods of 30- or 60-min orders could be paradoxically rejected.

Should this occur, Paradoxically column will have value 'PRL' and Paradoxically rejected volume will have the value in the amount of the volume that was rejected (and consequently, not executed).

### Block order results

MATS Market result report does not maintain Area column per block order. Instead the combination of (Bidding level, Duration) is included as a separate line in the excel and the orders related to this combination grouped per (Bidding level, Duration) combination.

| Column Number | ETS       | MATS      |
|---------------|-----------|-----------|
| 1             | Area      | Portfolio |
| 2             | Portfolio | Block id  |