European Network of
Transmission System Operators
for Electricity

# Common Platform for Replacement Reserves

# IMPLEMENTATION GUIDE

2022-10-19

VERSION 1.3

1

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The force of the following words is modified by the requirement level of the document in which they are used.

- SHALL: This word, or the terms “REQUIRED” or “MUST”, means that the definition is an absolute requirement of the specification.
- SHALL NOT: This phrase, or the phrase “MUST NOT”, means that the definition is an absolute prohibition of the specification.
- SHOULD: This word, or the adjective “RECOMMENDED”, means that there may exist valid reasons in particular circumstances to ignore a particular item, but the full implications shall be understood and carefully weighed before choosing a different course.
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40

# Revision History

| Version | Release | Date | Comments |
|---|---|---|---|
| 1 | 0 | 2018-09-27 | First version |
| 1 | 1 | 2019-10-30 | Removed all references to mFRR as there will be a dedicated implementation guide for the mFRR platform. Removed settlement for inelastic need netting and price divergence. Clarified that resolution shall coincide with border scheduling step for XB capacity and resulting schedules. Specified reason codes for declaring bid as unavailable. Editorial corrections, aligned order of attributes in tables with XSDs.<br><br>Net positions reported to PEVF and TSO will exceptionally and temporarily be provided per control area for Terna.<br><br>Resulting CMOL will always be sent in a single document, no matter whether interconnector flow constraints were applied or not. Settlement mode shall be indicated by new attribute paymentTerms. Activation purpose shall be declared with reason codes for each activated offer or satisfied elastic need. The offered/requested price shall be included in the Energy_price.amount attribute which earlier was unused.<br><br>Specified coding scheme.<br><br>Corrected code related to attribute cancelledTS.<br>Approved by MC. |
| 1 | 2 | 2022-03-15 | Editorial corrections: Energy_Price.amount rather than price.amount attribute will be used to convey the price when bid is reported to Transparency Platform. Price payment table revised to reflect that offers are settled between TSO and BSP.<br><br>Reason for unavailability must be specified when reporting unavailable bids. Optionally it shall additionally be possible to indicate the purpose when an unavailable bid is activated locally.<br><br>Updated process timeline in chapter 5.1.<br><br>Replaced TSO by System Operator in sequence diagram.<br><br>Single clearing run: Negative congestion income output toward settlement service.<br><br>Approved by MC. |
| 1 | 3 | 2022-10-19 | CMM will submit ATC and receive schedules.<br><br>Affected TSO procedure.<br><br>Settlement data will be output per scheduling area.<br><br>Editorial correction: Removed role A32 from receiver of schedule document since never used.<br>Approved by ICTC. |

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## Introduction

This document was drafted based on IEC 62325 series. In particular, the IEC 62325-450 methodology was applied to develop the conceptual and assembly models.

## Scope

The Trans European replacement reserves exchange (TERRE) project is a pilot project for the exchange of replacement reserve balancing energy. It is eventually targeted to become the common platform mandated under the electricity balancing guideline (Network Code)

The aims of the project are to permit:

- The reduction of balancing costs through the introduction of an optimization based matching process;
- The increase of the available balancing energy for each TSO with positive impact on the security of supply and on the integration of renewable energy in the electric systems.
- A more efficient use of cross border interconnectors after Intraday Markets.

## Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC TS 61970-2, *Energy management system application program interface (EMS-API) –Part 2: Glossary*

IEC 62325-301, *Framework for energy market communications – Part 301: Common information model (CIM) extensions for markets*

IEC 62325-351, *Framework for energy market communications – Part 351: CIM European market model exchange profile*

IEC 62325-450, *Framework for energy market communications – Part 450: Profile and context modeling rules*

IEC 62325-451-1, *Framework for energy market communications – Part 451-1: Acknowledgement business process and contextual model for CIM European market*

*IEC 62325-451-2, Framework for energy market communications – Part 451-2: Scheduling business process and contextual model for CIM European market*

*IEC 62325-451-3, Framework for energy market communications – Part 451-3: Transmission capacity allocation business process (explicit or implicit auction) and contextual model for CIM European market*

*IEC 62325-451-4, Framework for energy market communications – Part 451-4: Settlement and reconciliation business process and contextual model for CIM European market*

*IEC 62325-451-6, Framework for energy market communications – Part 451-6: Transparency business process and contextual model for CIM European market*

IEC 62325-451-7, *Framework for energy market communications – Part 451-7: Reserve resource business process and contextual model for CIM European market*

*ENTSO-E RG CE scheduling reporting process implementation guide*

*ENTSO-E Manual of Procedures for central Transparency Platform v3r2*

159 *Harmonised role model 2019-01*

# Terms and definitions

## 4.1 RR

Replacement reserves; The reserves used to restore/support the required level of FRR to be prepared for additional system imbalances. This category includes operating reserves with activation time from Time to Restore Frequency up to hours.

## 4.2 CMM

Capacity Management Module - the platform dedicated to calculating the cross-zonal capacity limits within the balancing timeframe.

## 4.3 Affected TSO

As defined by SO GL article 3(94).

# The replacement reserve business process for standard products

## 5.1 General overview

The common platform has a number of operational phases that are carried out throughout the day. Initially these phases will be carried out over a three-hour period.

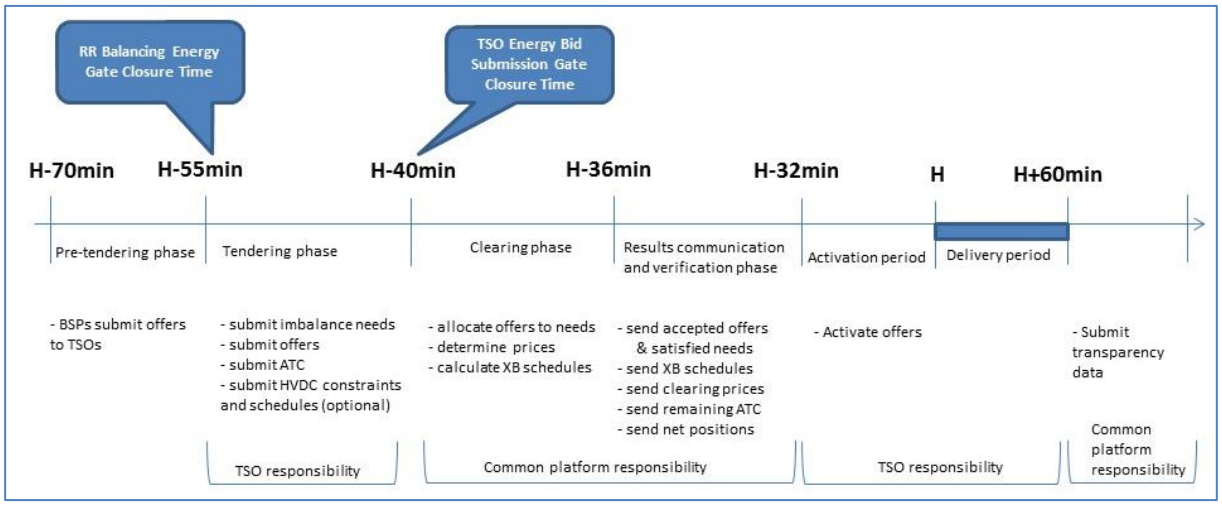



**Figure 1: Replacement reserve process overview**

The common platform's operational phases outlined in Figure 1 exhibits the timing in order to satisfy a one-hour delivery period.

The Balance Service Providers (BSP) may during a pre-tendering phase submit offers to the TSOs.

At the balancing energy gate closure time H-55 min the tendering phase begins on the common platform. Each TSO submits to the common platform the replacement reserve (RR) imbalance needs and the offers. The CMM submits available transfer capacity (ATC). Exceptionally, participating and other non-participating but affected TSOs may submit ATC values.

At the gate closure of the tendering phase H-40 min the common platform begins the clearing phase and allocates the offers to satisfy the RR needs, fixes the prices and calculates the cross-border schedules.

At H-36 the resulting accepted offers, satisfied needs, cross border schedules, net positions and remaining ATC are submitted to the concerned parties and are verified.

At H-32 the activation phase begins where each TSO activates the offers under its responsibility that are needed in order to satisfy the overall needs.

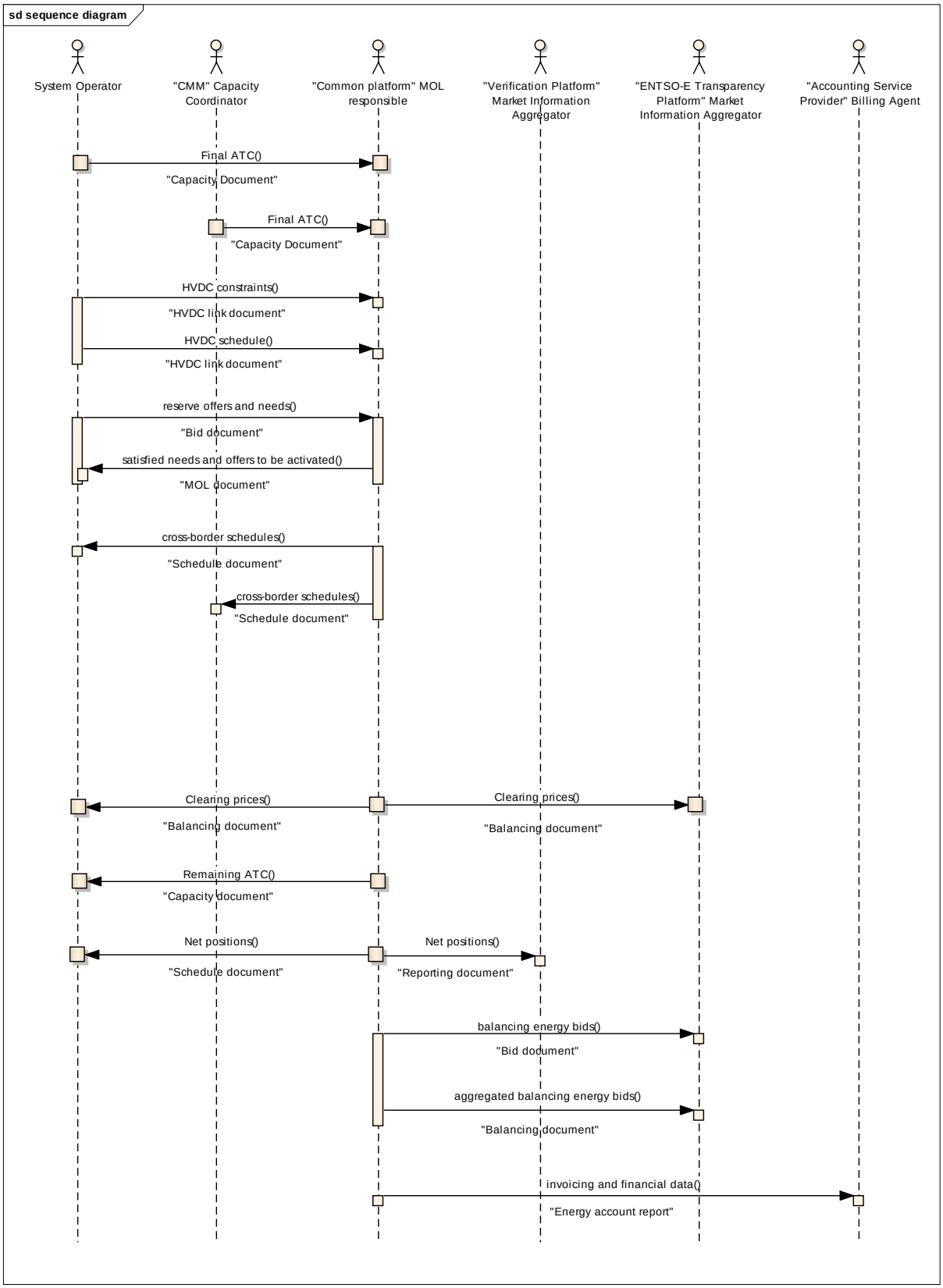
At H the activation for one hour occurs.

193 At H+90 minutes the latest, all the information required for transparency reporting purposes is
194 provided.

## 195 5.2 Overall business context

196 This Implementation Guide provides the means of exchanging between the common platform
197 and all concerned parties the information necessary to satisfy replacement reserve
198 requirements as outlined in paragraph 4.1.

199




200

201 **Figure 2: The replacement reserve process sequence diagram**

202 The information flows are outlined in the following paragraphs.

### 5.2.1 Final ATC

### 5.2.2 The CMM provides to the common platform during the tendering phase the final available transfer capacity (ATC). This information will be used during the calculation of the replacement reserves for the coming delivery period. Exceptionally, participating TSOs and non-participating but affected TSOs may submit ATC. HVDC and AC constraints

The TSOs with high voltage direct current (HVDC) lines provide to the common platform the constraints in relation to the lines in question. Optionally constraints on AC links may also be provided to the platform.

### 5.2.3 HVDC schedules

The TSOs with high voltage direct current (HVDC) lines provide to the common platform the schedules in relation to the lines in question and where HVDC constraints have also been transmitted.

### 5.2.4 TSO reserve offers and needs

During the tendering phase the participating TSOs provide to the common platform the list of all the offers for reserve use as well as the list of all the reserve needs for the coming delivery period.

### 5.2.5 Accepted needs and offers to be activated

The common platform, after carrying out the analysis of the submitted data during the clearing phase, sends to each participating TSO the needs that will be met as well as those which cannot be satisfied. In addition it will provide the offers that have to be activated within the TSO area.

### 5.2.6 Cross border schedules

The common platform informs the CMM and the participating TSOs of the schedules that have to be included in the coming scheduling process.

### 5.2.7 Net position

The common platform informs the pan-European verification platform of the net position per control area for the schedule day of all participating TSOs, resulting from the flows on AC interconnectors. Flows on HVDC interconnectors are not taken into account.

Each TSO receives the net position for its control area. Flows on AC interconnectors are taken into account but flows on HVDC interconnectors are excluded.

### 5.2.8 Clearing prices

The common platform provides the clearing prices to the TSOs.

### 5.2.9 Remaining ATC

The common platform notifies the participating TSOs of any ATC that remains unused at the end of the process.

### 5.2.10 Transparency reporting

The common platform submits clearing prices, all energy balancing bids and an aggregation of all energy balancing bids to the ENTSO-E central transparency platform for publication.

### 5.2.11 Invoicing and financial data

The common platform provides the financial information to the billing agent that will carry out financial settlement between the TSOs. Any TSO may optionally subscribe to this information for reconciliation purposes.

## 5.3 Business rules

### 5.3.1 General rules

For each electronic data interchange defined in this document, an acknowledgement document, as defined in IEC 62325-451-1, should be generated either accepting the whole received document or rejecting it completely.

The business process described in this chapter will be executed separately for each region, also referred to as virtual scheduling area. For Replacement Reserves, the following regions shall apply:

| Region | EIC code | Geographical scope |
|---|---|---|
| Western Europe | 10Y1001C--00031A | UK-FR-CH-IT-ES-PT |
| Central Europe | 10Y1001C--00030C | PL-CZ |
| Eastern Europe | 10Y1001C--000328 | HU-RO |

In all documents the single applicable coding scheme shall be A01 = EIC coding scheme.

### 5.3.2 Dependencies governing the Capacity_MarketDocument

The capacity market document is used to provide the ATC that is available in a TSO area for a given period. Data for more than one border or interconnector may at the discretion of the data provider be conveyed in a single or separate documents. For a given border or interconnector, values must be provided for both directions in the same document. The capacity market document is also used by the common platform to inform the TSOs of any ATC that remains.

Table 1 provides the dependencies for the capacity market document.

**Table 1 – Capacity market document dependency table**

| | | Use | XSD requirements |
|---|---|---|---|
| **Capacity_MarketDocument** | | | |
| mRID | Unique identification of the Capacity Document | Used | Mandatory |
| revisionNumber | Initial transmission shall equal "1" | Used | Mandatory |
| type | A31 = Agreed capacity (used when submitting available capacity to common platform)<br>A26 = Capacity document (used to transmit remaining capacity from the common platform to the TSOs) | Used | Mandatory |
| process.processType | A15 = Capacity determination | Used | Mandatory |
| sender_MarketParticipant.mRID | EIC of the Transmission System Operator or CMM when the document type = A31<br>EIC of the common platform Operator when the DocumentType = A26. | Used | Mandatory |
| sender_MarketParticipant.marketRole.type | A36 = Capacity Coordinator when the document type = A31 (CMM submits ATC)<br>A04 = System operator when the document type = A31 (TSO submits ATC)<br>A35 = MOL responsible when the document type = A26 | Used | Mandatory |
| receiver_MarketParticipant.mRID | EIC of the common platform Operator when the document type = A31:<br>10X1001C--00006N<br>EIC of the Transmission System Operator when the document type = A26 | Used | Mandatory |
| receiver_MarketParticipant.marketRole.type | A35 = MOL responsible Operator when the document type = A31<br>A04 = System operator when the document type = A26 | Used | Mandatory |
| createdDateTime | Date and time of document creation | Used | Mandatory |
| period.timeInterval | The duration of the delivery period (initially 1 hour) | Used | Mandatory |
| domain.mRID | EIC of the region | Used | Mandatory |

| **TimeSeries** | | | |
|---|---|---|---|
| mRID | The unique identification of the time series within the document | Used | Mandatory |
| businessType | A26 = ATC | Used | Mandatory |
| product | 8716867000016 = active power | Used | Mandatory |
| in_Domain.mRID | EIC identification of the scheduling area where the power is being put | Used | Mandatory |
| out_Domain.mRID | EIC identification of the scheduling area where the power is coming from | Used | Mandatory |
| measure_Unit.name | MAW = Megawatts | Used | Mandatory |
| auction.mRID | The identification of an auction specification | Not used | Conditional |
| auction.category | The category under which capacity is classified | Not used | Conditional |
| curveType | A01 = Sequential fixed size block | Used | Mandatory |
| connectingLine_RegisteredResource.mRID | The identification of a set of lines that connect two areas together.<br>This is only used when specific tie lines have to be identified. | May be used | Conditional |

| **Period** | | | |
|---|---|---|---|
| timeInterval | A time interval of the same length as the delivery period (initially 1 hour) | Used | Mandatory |
| resolution | Shall coincide with the scheduling step of the border:<br>PT60M<br>PT30M<br>PT15M<br>Submission of ATC from CMM will always be expressed in PT15M. | Used | Mandatory |

| **Point** | | | |
|---|---|---|---|
| position | Position within the time interval | Used | Mandatory |
| quantity | Quantity of ATC with 0.1 MW precision | used | Mandatory |

| **Reason (associated with header and point)** | | Not used | **Conditional** |
|---|---|---|---|

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### 5.3.3 Dependencies governing the HVDCLink_marketDocument

The HVDC link market document is used by the transmission system operator to provide all the HVDC constraints and schedules to the common platform. This document may optionally also be used by TSOs to provide constraints on AC links. For a given interconnector, schedules must be provided for both directions in the same file.

Table 2 provides the dependencies for the HVDC link market document.

**Table 2 - HVDC link market document dependency table**

| | | Constraint | schedule | XSD requirements |
|---|---|---|---|---|
| **HVDCLink_MarketDocument** | | | | |
| mRID | Unique identification of the Schedule Document | Used | Used | Mandatory |
| revisionNumber | Initial transmission shall equal "1" | Used | Used | Mandatory |
| type | The coded type of a document. The document type describes the principal characteristic of the document. | A99 = HVDC link constraints | B02 HVDC schedule | Mandatory |
| process.processType | A02 = Intraday incremental | Used | Used | Mandatory |
| sender_MarketParticipant.mRID | EIC of the Transmission System Operator | Used | Used | Mandatory |
| sender_MarketParticipant.marketRole.type | A04 = System operator | Used | Used | Mandatory |
| receiver_MarketParticipant.mRID | EIC of the common platform Operator: 10X1001C--00006N | Used | Used | Mandatory |
| receiver_MarketParticipant.marketRole.type | A35 = MOL responsible | Used | Used | Mandatory |
| createdDateTime | Date and time of document creation | Used | Used | Mandatory |
| schedule_Period.timeInterval | The time interval covered by the schedule | Used | Used | Mandatory |
| docStatus | A01 = Intermediate<br>A02 = Final | Used | Used | Mandatory |
| domain.mRID | EIC of the region | Used | Used | Mandatory |

| TimeSeries | | Constraint | Schedule | |
|---|---|---|---|---|
| mRID | The unique identification of the time series within the document | Used | Used | Mandatory |
| businessType | B30 = HVDC settings | Used | Used | Mandatory |
| product | 8716867000016 = active power | Used | Used | Mandatory |
| objectAggregation | A09 = DC link | Used | Used | Mandatory |
| connectingLine_RegisteredResource.mRID | The identification of the HVDC link or group of HVDC links. May also be used to identify an AC link. | Used | Used | Mandatory |
| hVDCMode_AttributeInstanceComponent.attribute | A01 = HVDC set point schedule | Used | Used | Conditional |
| out_Domain.mRID | EIC identification of the scheduling area where the product is being extracted | Used | Used | Conditional |
| in_Domain.mRID | EIC identification of the scheduling area where the product is being delivered | Used | Used | Conditional |
| measurement_Unit.name | MAW = Megawatts | Used | Used | Mandatory |
| curveType | A01 = Sequential fixed size block<br>A03 = Variable block | Used | Used | Conditional |
| minimumExchange_Quantity.quantity | The minimum value of a power exchange range between the In_Domain and the Out_Domain of the timeseries. | Not used | Not used | Conditional |
| maximumExchange_Quantity.quantity | The maximum value of a power exchange range between the In_Domain and the Out_Domain of the timeseries. | Not used | Not used | Conditional |

| Series_Period | | | | |
|---|---|---|---|---|
| timeInterval | A time interval of the length of the delivery period (initially 1 hour) | Used | Used | Mandatory |
| resolution | Shall coincide with the scheduling step of the border:<br>PT60M<br>PT30M<br>PT15M | Used | Used | Mandatory |

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| **Point** | | Constraint | Schedule | |
|---|---|---|---|---|
| position | Position within the time interval | Used | Used | Mandatory |
| quantity | The value of the scheduled product. One of the directions must equal zero (net schedule). Precision is 0.1 MW. | Not used | Used | Conditional |
| minimum_Quantity.quantity | The minimum value of power exchange on the HVDC line (or AC link) for a scheduled point. Precision is 0.1 MW. Shall be zero if constraints are provided in both directions for a given position. | Used | Not used | Conditional |
| maximum_Quantity.quantity | The maximum value of power exchange on the HVDC line (or AC link) for a scheduled point. Precision is 0.1 MW. | Used | Not used | Conditional |
| optimum_Quantity.quantity | The value of the optimum power exchange on the HVDC line for a scheduled point. | Not used | Not used | Conditional |

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### 5.3.4 Dependencies governing the ReserveBid_MarketDocument

The reserve bid market document is used to provide all the information related to offers and needs that are submitted to the common platform. It is also used to submit all offers to the ENTSO-E central transparency platform.

All needs from a given TSO (elastic, inelastic and flexible needs) must be placed within a single document. Offers may be distributed among more than one document, at the discretion of the TSO.

If data provider wants to withdraw a single need or offer that already has been submitted to the platform, it is necessary to submit a higher version of the same document and exclude the corresponding time series.

Table 3 provides the dependencies for the reserve bid market document when TSOs submit offers and needs to the common platform.

**Table 3 – Reserve bid market document dependency table (submissions to common platform)**

| | | OFFER | NEED | XSD requirements |
|---|---|---|---|---|
| **ReserveBid_MarketDocument** | | | | |
| mRID | Unique identification of the Bid Document | Used | Used | Mandatory |
| revisionNumber | Initial transmission shall equal "1" | Used | Used | Mandatory |
| type | A37 = Reserve Bid document | Used | Used | Mandatory |
| process.processType | A46 = Replacement reserve (RR) | Used | Used | Conditional |
| sender_MarketParticipant.mRID | EIC of the transmitting TSO | Used | Used | Mandatory |
| sender_MarketParticipant.marketRole.type | A04 = System Operator | Used | Used | Mandatory |
| receiver_MarketParticipant.mRID | EIC of common platform operator: 10X1001C--00006N | Used | Used | Mandatory |
| receiver_MarketParticipant.marketRole.type | A35 = MOL responsible | Used | Used | Mandatory |
| createdDateTime | Date and time of document creation | Used | Used | Mandatory |
| reserveBid_Period.timeInterval | The duration of the delivery period (initially 1 hour) | Used | Used | Mandatory |
| domain.mRID | EIC of region | Used | Used | Mandatory |
| subject_MarketParticipant.mRID | EIC of the transmitting TSO | Used | Used | Mandatory |

| | | | | |
|---|---|---|---|---|
| subject_MarketParticipant.marketRole.type | A27 = Resource Provider | Used | Used | Mandatory |

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| **Bid_TimeSeries** | | | | |
|---|---|---|---|---|
| mRID | Unique identification of the bid assigned by the transmitting TSO | Used | Used | Mandatory |
| auction.mRID | Constant value of “AUCTION-RR”. It identifies that the bid refers to the auction specifications for a replacement reserve tender.<br>Other values may be added as the replacement reserve process further evolves. | Used | Used | Mandatory |
| businessType | B74 = Offer<br>B75 = Need<br>B90 = Flexible need | B74 = Offer | B75 = Need<br>B90 = Flexible need | Mandatory |
| acquiring_Domain.mRID | For offers it corresponds to the EIC identification of the region.<br>For needs it corresponds to the EIC identification of the sending TSO’s scheduling area. | region | TSO’s control area or scheduling area | Mandatory |
| connecting_Domain.mRID | For offers it corresponds to the EIC identification of the sending TSO’s scheduling area providing the reserves. Associated multipart, linked and exclusive bids must be associated with the same scheduling area.<br>For needs it corresponds to the EIC identification of the region providing the reserves | Used | Used | Mandatory |
| provider_MarketParticipant.mRID | The balance service provider (BSP) identification. | May be used | Not used | Conditional |
| quantity_Measure_Unit.name | MAW = Megawatts | Used | Used | Mandatory |
| currency_Unit.name | EUR = Euro.<br>This currency is only provided in the case of a need where there is a price in the point class. Otherwise it is not used. | Used | May be used | Conditional |
| price_Measure_Unit.name | MWH = Megawatt hours.<br>This unit of measure is only provided in the case of a need where there is a price in the point class. Otherwise it is not used | Used | May be used | Conditional |
| divisible | A01 = quantity may be reduced to the minimum activation quantity by increments of the StepIncrementQuantity<br>A02 = No reduction possible on the quantity | Used | A01 | Mandatory |
| linkedBidsIdentification | The identification used to associate bids that are to be linked together. If one bid is accepted then all others with the same identification must also be accepted. If the bid is not linked then the attribute is not used. | May be used. See note below. | Not used | Conditional |
| multipartBidIdentification | The identification used to associate multipart bids. If bid with flowDirection.direction=A01 (Up) is accepted then all associated bids with inferior price must also be accepted. If bid with flowDirection.direction=A02 (Down) is accepted then all associated bids with superior price must also be accepted. If the bid is not multipart then the attribute is not used. | May be used. See note below. | Not used | Conditional |

| | | | | |
|---|---|---|---|---|
| exclusiveBidsIdentification | The identification used to associate exclusive bids. If bid is accepted then all others with same identification shall be ignored. If the bid is not exclusive then the attribute is not used. | May be used. See note below. | Not used | Conditional |
| blockBid | Not used. Redundant due to the existence of Divisible attribute. | Not used | Not used | Optional |
| status | A06 = Available<br><br>A11 = Unavailable<br>Associated multipart, linked and exclusive bids must have the same status. | Used | Not used | Conditional |
| priority | A sequential number indicating the priority of the bid in relation to other bids | Not used | Not used | Conditional |
| registeredResource.mRID | The identification of the resource used to provide the reserves | May be used | Not used | Conditional |
| flowDirection.direction | A01 = UP<br>A02 = DOWN<br>Refer to the price payment table for use in relation to price.<br><br>Multipart offers shall have the same direction. | Used | Used | Mandatory |
| stepIncrementQuantity | Not used. For needs and divisible offers the input step increment has been harmonised to 1 MW. | Not used | Not used | Conditional |
| energyPrice_Measure_Unit.name | MWH = Megawatt hours | Not used | Not used | Conditional |
| marketAgreement.type | The type of the market agreement | Not used | Not used | Conditional |
| marketAgreement.mRID | Identification of the agreement with the resource provider | Not used | Not used | Conditional |
| marketAgreement.createdDateTime | Time stamp used to identify the date and time that a specific offer was received. | Not used | Not used | Conditional |
| activation_ConstraintDuration.duration | Not used | Not used | Not used | Conditional |
| resting_ConstraintDuration.duration | Not used | Not used | Not used | Conditional |
| minimum_ConstraintDuration.duration | Not used | Not used | Not used | Conditional |

| | | | | |
|---|---|---|---|---|
| maximum_ConstraintDuration.duration | Not used | Not used | Not used | Conditional |
| standard_MarketProduct.marketProductType | Used when the bid refers to a standard product or a specific product that has been converted into a standard product:<br>A01 = Standard product<br>Associated multipart, linked and exclusive bids must have the same value. | Used | Not used | Conditional |
| original_MarketProduct.marketProductType | Used when the bid refers to a specific product or a specific product that has been converted into a standard product:<br>A02 = Specific product<br>A03 = Integrated scheduling process<br>Associated multipart, linked and exclusive bids must have the same value. | May be used | Not used | Conditional |
| validity_Period.timeInterval | The period when the bid can be activated | Not used | Not used | Optional |

Note: The attributes linkedBidIdentification, exclusiveBidIdentification and multipartBidIdentification are mutually exclusive and cannot be used in combination. Associated bids shall carry the same value in the identification attribute. For example: The document contains three bids that are linked – those three bids shall have the same value in the linkedBidIdentification attribute. The values used in these attributes must be unique within the document but may be reused in subsequently submitted documents.

| | | | | |
|---|---|---|---|---|
| **Period** | | | | |
| timeInterval | A time interval within the delivery period. Multipart offers shall have the same timeInterval. Linked offers must have a time interval of exactly 15 minutes. Linked offers may not overlap in time. | Used | Used | Mandatory |
| Resolution | PT60M<br>PT30M<br>PT15M | Used | Used | Mandatory |
| **Point** | | | | |
| position | Position within the time interval | Used | Used | Mandatory |
| quantity.quantity | Quantity offered or needed with 1 MW precision.<br>Multipart offers shall have constant quantity throughout the Period. | Quantity offered | Quantity needed | Mandatory |
| minimum_Quantity.quantity | Required if divisible = A01. Precision is 1 MW.<br>Multipart offers shall have constant minimum quantity throughout the Period. | May be used | 0 | Conditional |

| | | | | |
|---|---|---|---|---|
| price.amount | The price of the product. Precision is 0.01.<br>Multipart offers shall have constant price throughout the Period.<br>Note: Refer to the Price payment table for establishing who is paid. | The price of the offer | May be used to indicate the price cap set by the TSO | Conditional |
| energy_Price.amount | Not used | Not used | Not used | Conditional |

| | | | | |
|---|---|---|---|---|
| **AvailableMBA_Domain (Associated with time series)** | Not used | Not used | Not used | **Conditional** |
| mRID | | | | |

| | | | | |
|---|---|---|---|---|
| **Reason (associated with time series)** | Note: This class is strictly associated with the status attribute that has the value of A11 = Unavailable. | May be used | Not used | **Conditional** |
| code | Reason for unavailability:<br>B46 = internal congestion<br>B47 = operational security constraints<br><br>Activation purpose:<br>B55 = Because of redispatching<br>B56 = Because of countertrading<br>B57 = Because of other remedial action | Used | Not used | Mandatory |
| text | Textual information provided by the TSO | May be used | Not used | Optional |

Note on Reason class: If the necessary information is at the disposal of the TSO at the time of submission, TSO may include a second instance of Reason to indicate the activation purpose when an unavailable bid was activated locally.

Table 4 provides the dependencies for the reserve bid market document when the common platform submits offers to the ENTSO-E transparency platform. A separate document will be sent for every scheduling area.

**Table 4 – Reserve bid market document dependency table (submissions to transparency platform)**

| | | Use | XSD requirements |
|---|---|---|---|
| **ReserveBid_MarketDocument** | | | |

| | | | |
|---|---|---|---|
| mRID | Unique identification of the Bid Document | Used | Mandatory |
| revisionNumber | Initial transmission shall equal "1" | Used | Mandatory |
| type | A37 = Reserve Bid document | Used | Mandatory |
| process.processType | A46 = Replacement reserve (RR) | Used | Conditional |
| sender_MarketParticipant.mRID | EIC of common platform operator: 10X1001C--00006N | Used | Mandatory |
| sender_MarketParticipant.marketRole.type | A35 = MOL responsible | Used | Mandatory |
| receiver_MarketParticipant.mRID | 10X1001A1001A450 = EIC of the ENTSO-E transparency platform | Used | Mandatory |
| receiver_MarketParticipant.marketRole.type | A32 = Market information aggregator | Used | Mandatory |
| createdDateTime | Date and time of document creation | Used | Mandatory |
| reserveBid_Period.timeInterval | The duration of the delivery period (initially 1 hour) | Used | Mandatory |
| domain.mRID | EIC of the region | Used | Mandatory |
| subject_MarketParticipant.mRID | EIC of common platform Operator | Used | Mandatory |
| subject_MarketParticipant.marketRole.type | A35 = MOL responsible | Used | Mandatory |

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| **BidTimeSeries** | | | |
|---|---|---|---|
| mRID | Unique identification of the bid assigned by the transmitting TSO | Used | Mandatory |
| auction.mRID | Constant value of “AUCTION-RR”. It identifies that the bid refers to the auction specifications for a replacement reserve tender | Used | Mandatory |
| businessType | B74 = Offer | Used | Mandatory |
| acquiring_Domain.mRID | EIC identification of the region | Used | Mandatory |
| connecting_Domain.mRID | EIC identification of the sending TSO’s scheduling area providing the reserves | Used | Mandatory |
| provider_MarketParticipant.mRID | The balance service provider (BSP) identification | Not used | Conditional |
| quantity_Measure_Unit.name | MAW = Megawatts | Used | Mandatory |
| currency_Unit.name | EUR = Euro | Used | Conditional |

| | | | |
|---|---|---|---|
| price_Measure_Unit.name | MWH = Megawatt hours | Used | Conditional |
| divisible | A01 = quantity may be reduced to the minimum activation quantity<br>A02 = No reduction possible on the quantity | Used | Mandatory |
| linkedBidsIdentification | Populated if the bid is linked | May be used | Conditional |
| multipartBidIdentification | Populated if the bid is multipart | May be used | Conditional |
| exclusiveBidsIdentification | Populated if the bid is exclusive | May be used | Conditional |
| blockBid | Not used. Redundant due to the existence of Divisible attribute. | Not used | Optional |
| status | A06 = Available<br><br>A11 = Unavailable | Used | Conditional |
| priority | A sequential number indicating the priority of the bid in relation to other bids | Not used | Conditional |
| registeredResource.mRID | The identification of the resource used to provide the reserves | Not used | Conditional |
| flowDirection.direction | A01 = UP<br>A02 = DOWN<br>Refer to the price payment table for use in relation to price | Used | Mandatory |
| stepIncrementQuantity | Not used. For needs and divisible offers the input step increment has been harmonised to 1 MW. | Not used | Conditional |
| energyPrice_Measure_Unit.name | MWH = Megawatt hours | Not used | Conditional |
| marketAgreement.type | The type of the market agreement | Not used | Conditional |
| marketAgreement.mRID | Identification of the agreement with the resource provider | Not used | Conditional |
| marketAgreement.createdDateTime | Time stamp used to identify the date and time that a specific offer was received. | Not used | Conditional |
| activation_ConstraintDuration.duration | Not used | Not used | Conditional |
| resting_ConstraintDuration.duration | Not used | Not used | Conditional |

| | | | |
|---|---|---|---|
| minimum_ConstraintDuration.duration | Not used | Not used | Conditional |
| maximum_ConstraintDuration.duration | Not used | Not used | Conditional |
| standard_MarketProduct.marketProductType | Used when the bid refers to a standard product or a specific product that has been converted into a standard product:<br>A01 = Standard product | Used | Conditional |
| original_MarketProduct.marketProductType | Used when the bid refers to a specific product that has been converted into a standard product:<br>A02 = Specific product<br>A03 = Integrated scheduling process | May be used | Conditional |
| validity_Period.timeInterval | The period when the bid can be activated | Used | Optional |
| **Period** | | | |
| timeInterval | A time interval within the delivery period | Used | Mandatory |
| resolution | PT15M | Used | Mandatory |
| **Point** | | | |
| position | Position within the time interval | Used | Mandatory |
| quantity.quantity | Quantity offered with 1 MW precision | Used | Mandatory |
| minimum_Quantity.quantity | | Not used | Conditional |
| price.amount | Not used | Not used | Conditional |
| energy_Price.amount | The price of the product. Precision is 0.01.<br>Refer to the Price payment table for establishing who is paid. | Used | Conditional |

| | | | |
|---|---|---|---|
| **AvailableMBA_Domain (Associated with time series)** | Not used | Not used | **Conditional** |
| mRID | | | |

| | | | |
|---|---|---|---|
| **Reason (associated with time series)** | This class is only used when status attribute contains A11 = Unavailable. | May be used | **Conditional** |
| code | Reason for unavailability:<br>B46 = internal congestion<br>B47 = operational security constraints<br><br>Activation purpose:<br>B55 = Because of redispatching<br>B56 = Because of countertrading<br>B57 = Because of other remedial action | Used | Mandatory |
| text | Textual information provided by the TSO | -May be used | Optional |

Note on Reason class: If the information has been provided by TSO, a second instance of Reason may be included to indicate the activation purpose when an unavailable bid was activated locally.

### 5.3.5 Price payment table

Aligning with EB GL art. 48, Table 5 clarifies whether TSO or Balancing Service Provider (BSP) should pay the price indicated.

**Table 5 - Price payment table**

| **OFFERS** | | | | | |
|---|---|---|---|---|---|
| acquiring_Domain.mRID | Domain where the reserve will be used | region | region | region | region |
| connecting_Domain.mRID | Domain providing the reserve | TSO control area | TSO control area | TSO control area | TSO control area |
| flowDirection.direction | Direction of the flow | UP | UP | DOWN | DOWN |
| price.amount | Price of the energy | >0 | <0 | >0 | <0 |
| Which party pays | | TSO | BSP | BSP | TSO |

### 5.3.6 Dependencies governing the MeritOrderList_MarketDocument

The merit order list market document is used by the common platform to provide all the information related to the offers that been accepted as well the needs that have been satisfied.

Table 6 provides the dependencies for the merit order list market document.

**Table 6 - merit order list market document dependency table**

| | | OFFER | NEED | XSD requirements |
|---|---|---|---|---|
| **MeritOrderList_MarketDocument** | | | | |
| mRID | Unique identification of the MOL Document | Used | Used | Mandatory |
| revisionNumber | Initial transmission shall equal "1" | Used | Used | Mandatory |
| type | A66 = Final MOL | Used | Used | Mandatory |
| process.processType | A46 = Replacement reserve (RR) | Used | Used | Conditional |
| sender_MarketParticipant.mRID | EIC of the common Operator: 10X1001C--00006N | Used | Used | Mandatory |
| sender_MarketParticipant.marketRole.type | A35 = MOL responsible | Used | Used | Mandatory |
| receiver_MarketParticipant.mRID | EIC of the Transmission System Operator | Used | Used | Mandatory |
| receiver_MarketParticipant.marketRole.type | A04 = System operator | Used | Used | Mandatory |
| createdDateTime | Date and time of document creation | Used | Used | Mandatory |
| period.timeInterval | The duration of the delivery period (initially 1 hour) | Used | Used | Mandatory |
| domain.mRID | EIC of the region | Used | Used | Conditional |

| **BidTimeSeries** | | | | |
|---|---|---|---|---|
| marketAgreement.mRID | Identification of the offer or the need as defined in the receiving TSO submission. | Used | Used | Mandatory |
| marketAgreement_createdDateTime | The timestamp of when the bid was received | Not used | Not used | Conditional |
| priority | A sequential number indicating the priority of the bid in relation to other bids. | Not used | Not used | Conditional |
| resourceProvider_MarketParticipant.mRID | The balance service provider (BSP) identification. | May be used | Not used | Conditional |
| registeredResource.mRID | The identification of the resource used to provide the reserves. | May be used | Not used | Conditional |
| acquiring_Domain.mRID | For offers it corresponds to the EIC identification of the region.<br>For needs it corresponds to the EIC identification of the receiving TSO's control area or scheduling area. | region | Receiving TSO's bidding zone or scheduling area | Mandatory |
| connecting_Domain.mRID | for offers it corresponds to the EIC identification of the receiving TSO's scheduling area providing the reserves.<br>for needs it corresponds to the EIC identification of the region providing the reserves | Receiving TSO's bidding zone | region | Mandatory |
| auction.mRID | Identification of auction as defined in the reserve bid document. | Used | Used | Mandatory |
| auction.paymentTerms | A01 = Pay as bid<br>A02 = Pay as cleared | Used when offer accepted | Used when elastic need satisfied | Conditional |
| businessType | B74 = Offer<br>B75 = Need<br>B90 = Flexible need | B74 = Offer | B75 = Need<br>B90 = Flexible need | Mandatory |
| bid_Period.timeInterval | The duration of the delivery period (initially 1 hour) | Used | Used | Mandatory |
| quantity_Measure_Unit.name | MAW = Megawatts | Used | Used | Mandatory |
| currency_Unit.name | EUR = Euro | Used | Used | Conditional |
| price_Measurement_Unit.name | MWH = Megawatt hours | Used | Used | Conditional |
| energyPrice_Measurement_Unit.name | MWH = Megawatt hours | Not used | Not used | Conditional |

| | | | | |
|---|---|---|---|---|
| direction | A01 = UP<br>A02 = DOWN<br>Refer to the price payment table for use in relation to price. | Used | Used | Mandatory |
| minimumActivation_Quantity.quantity | The minimum quantity that can be activated | Not used | Not used | Conditional |
| stepIncrement_Quantity.quantity | Not used. For needs and divisible offers the output step increment has been harmonised to 0.1 MW. | Not used | Used | Conditional |
| marketObjectStatus.status | A06 = available (the offer has not been activated)<br>A10 = Ordered (i.e. common platform has requested that the TSO activate an offer)<br>A33 = Not satisfied (i.e. The need cannot be satisfied by the common platform) | A06 = available<br>A10 = ordered | A10 = ordered<br>A33 = Not satisfied | Mandatory |

| **Period** | | | | |
|---|---|---|---|---|
| timeInterval | A time interval of the length of the delivery period (initially 1 hour) | Used | Used | Mandatory |
| resolution | PT15M | Used | Used | Mandatory |

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| **Point** | | | | |
|---|---|---|---|---|
| position | Position within the time interval | Used | Used | Mandatory |
| quantity.quantity | Quantity offered or needed. Precision is 1 MW. | Quantity offered | Quantity needed | Mandatory |
| price.amount | The price for activating the product. Precision is 0.01. | Used when offer accepted | Used when need satisfied | Conditional |
| energy_Price.amount | For offers; The offered price.<br>For elastic needs: The requested price.<br>Precision is 0.01. | Used | Used when elastic need | Conditional |

| | | | | |
|---|---|---|---|---|
| activated_Quantity.quantity | Quantity activated. Precision is 0.1 MW. | Quantity to be activated | Quantity for which activation has been requested | Conditional |

310

| **Reason (associated with time series)** | Note: This class is strictly associated with the status attribute that has the value of A10=Ordered | Used when offer accepted | Used when elastic need satisfied | **Conditional** |
|---|---|---|---|---|
| code | A96 = Technical constraint<br>B49 = Balancing | Used | Used | |
| text | Textual information provided by the TSO | Not used | Not used | |

311 Note: Two instances of Reason will be associated with the Time Series when an offer or elastic need has been activated for balancing purposes and
312 due to system constraints.

### 5.3.7 Dependencies governing the Schedule_MarketDocument

The schedule document is used by the common platform to provide all the cross-border information related to the nominations that been assigned. It is also used to provide the TSO with the net position of its scheduling area.

The schedule documents containing cross-border schedules and net positions are provided by the common platform per delivery period, not per business day. Each schedule document contains an individual message mRID and starts with revision number “1”.

Table 7 provides the dependencies for the schedule market document.

**Table 7 - Schedule market document dependency table**

| | | Use | XSD requirements |
|---|---|---|---|
| **Schedule_MarketDocument** | | | |
| mRID | Unique identification of the Schedule Document | Used | Mandatory |
| revisionNumber | Initial transmission shall equal "1" | Used | Mandatory |
| type | A30 = Cross border schedule<br>B17 = Aggregated netted external TSO schedule document | Used | Mandatory |
| process.processType | A46 = Replacement reserve (RR) | Used | Mandatory |
| process.classificationType | A01 = Detail type | Used | Mandatory |
| sender_MarketParticipant.mRID | EIC of the common platform Operator: 10X1001C--00006N | Used | Mandatory |
| sender_MarketParticipant.marketRole.type | A35 = MOL responsible | Used | Mandatory |
| receiver_MarketParticipant.mRID | EIC of the Transmission System Operator or of the CMM | Used | Mandatory |
| receiver_MarketParticipant.marketRole.type | A04 = System operator<br>A36 = Capacity Coordinator | Used | Mandatory |
| createdDateTime | Date and time of document creation | Used | Mandatory |
| schedule_Time_Period.timeInterval | The duration of the delivery period (initially 1 hour) | Used | Mandatory |
| domain.mRID | EIC of the region | Used | Mandatory |
| subject_MarketParticipant.mRID | EIC of the receiving TSO<br>EIC of the CMM | Used | Mandatory |
| subject_MarketParticipant.marketRole.type | A04 = System Operator<br>A36 = Capacity Coordinator | Used | Mandatory |
| matching_Time_Period.timeInterval | Matching period for the schedule document | Not used | Conditional |

| **TimeSeries** | | | |
|---|---|---|---|
| mRID | The unique identification of the time series within the document | Used | Mandatory |
| version | The version of the time series. It must always be the same as the version of the document | Used | Mandatory |
| businessType | A05 = External trade total<br>B09 = Net position | Used | Mandatory |
| product | 8716867000016 = active power | Used | Mandatory |
| objectAggregation | A01 = Area | Used | Mandatory |
| in_Domain.mRID | EIC identification of the scheduling area where the power is being put | Used | Conditional |
| out_Domain.mRID | EIC identification of the scheduling area where the power is coming from | Used | Conditional |
| marketEvaluationPoint.mRID | Identification of a resource | Not used | Conditional |
| in_MarketParticipant.mRID | identification of a market participant putting the power into the area | May be used when type=B17 | Conditional |
| out_MarketParticipant.mRID | Identification of a market participant that is taking the power from the area | May be used when type=B17 | Conditional |
| marketAgreement.type | Identification of the type of agreement | Not used | Conditional |
| marketAgreement.mRID | Identification of the reserve contract | Not used | Conditional |
| connectingLine_RegisteredResource.mRID | Provided in case there are multiple interconnectors | May be used when type=A30 | Conditional |
| measurement_Unit.name | MAW = Megawatts | Used | Mandatory |
| curveType | A01 = Sequential fixed size block | Used | Mandatory |

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| **Period** | | | |
|---|---|---|---|
| timeInterval | A time interval of the length of the delivery period (initially 1 hour) | Used | Mandatory |
| resolution | Shall coincide with the scheduling step of the border when document type = A30:<br>PT60M<br>PT30M<br>PT15M<br>Always PT15M when document type = A30 and recipient is CMM.<br>Always PT15M when document type = B17 | Used | Mandatory |

| **Point** | | | |
|---|---|---|---|
| position | Position within the time interval | Used | Mandatory |
| quantity | Quantity scheduled | Used | Mandatory |

| **Reason (associated with time series and point)** | | Not used | **Conditional** |
|---|---|---|---|

325 Notes:

326 1. When Business type is B09 = Net position and TSO is exporting, the in_Domain shall
327 be populated with the region and out_Domain with the TSO's scheduling area. When
328 TSO is importing, in_Domain shall be populated with the TSO's scheduling area and
329 out_Domain with the region.

2. Information on In and Out Market Participants will be included for select scheduling areas, due to local market rules for handling of reserve products: When B09 = Net position out_MarketParticipant or in_MarketParticipant will be populated with the party code of the BRP, depending on whether the TSO is importing or exporting energy. The other attribute will be populated with the party code of the entity operating the common platform.

3. Exceptionally and temporarily, the net position for Terna will be reported per control area.

### 5.3.8 Dependencies governing the EnergyAccount_MarketDocument

The energy account document is used by the common platform to provide the invoicing financial information for the reserves that have been replaced. The document is used in five cases:

1. To provide the financial settlement of the net positions;
2. To provide the positive congestion income;
3. To provide the negative congestion income due to the imposition of constraints on interconnectors.

Table 8 provides the dependencies for the energy account market document.

**Table 8 – Energy account market document dependency table**

| | | Use | XSD requirements |
|---|---|---|---|
| **EnergyAccount_MarketDocument** | | | |
| mRID | Unique identification of the Energy Account market Document | Used | Mandatory |
| revisionNumber | Initial transmission shall equal "1" | Used | Mandatory |
| type | A12 = Imbalance report | Used | Mandatory |
| docStatus | A02 = Final | Used | Mandatory |
| process.processType | A06 = Imbalance settlement | Used | Mandatory |
| process.classificationType | A01 = Detail type | Used | Mandatory |
| sender_MarketParticipant.mRID | EIC of the common platform Operator: 10X1001C--00006N | Used | Mandatory |
| sender_MarketParticipant.marketRole.type | A35 = MOL responsible | Used | Mandatory |
| receiver_MarketParticipant.mRID | EIC of the settlement billing agent: 10X1001A1001A57U | Used | Mandatory |
| receiver_MarketParticipant.marketRole.type | A10 = Billing agent | Used | Mandatory |
| createdDateTime | Date and time of document creation | Used | Mandatory |
| period.timeInterval | The duration of the settlement period | Used | Mandatory |
| domain.mRID | EIC of the region | Used | Conditional |

| **TimeSeries** | | | |
|---|---|---|---|
| mRID | Unique identification of the time series | Used | Mandatory |
| businessType | A24 Total trade where the time series covers financial values;<br>B10 = Congestion income;<br>B77 = Financial compensation or penalties<br><br>B77 is used to convey negative congestion income. | Used | Mandatory |
| Product | 8716867000016 = Active power | Used | Mandatory |
| objectAggregation | A01 = Area | Used | Mandatory |
| area_Domain.mRID | EIC identification of the scheduling area | Used | Mandatory |
| marketParticipant.mRID | identification of TSO responsible for the area | Used | Conditional |
| marketAgreement.mRID | Identification of the reserve contract | Not used | Conditional |
| measure_Unit.name | MWH = Megawatts hours | Used | Mandatory |

| | | | |
|---|---|---|---|
| currency_Unit.name | EUR = Euro | Used | Conditional |
| marketEvaluationPoint.mRID | Identification of an accounting point | Not used | Conditional |

| **Period** | | | |
|---|---|---|---|
| timeInterval | A time interval of the settlement period | Used | Mandatory |
| resolution | PT15M | Used | Mandatory |

| **Point** | | | |
|---|---|---|---|
| position | Position within the time interval | Used | Mandatory |
| in_Quantity.quantity | Quantity going into an area | Used | Mandatory |
| in_Quantity.quality | The quality of the quantity | Not used | Conditional |
| out_Quantity.quantity | Quantity going out of an area | Used | Mandatory |
| out_Quantity.quality | The quality of the quantity | Not used | conditional |
| price.amount | settlement amount. This represents the total financial value for the point in respect to the time series businessType. The value may be negative. | Used | conditional |

Note: The in quantity and out quantity represent a netted value consequently one of the values must always be equal to zero.

| **Reason (associated with Point)** | | Not used | **Conditional** |
|---|---|---|---|

### 5.3.9 Financial amount table

Table 9 indicates the domain owner that should pay the amount indicated.

**Table 9 – Financial amount table**

| Price.amount | Settlement amount | >0 | <0 |
|---|---|---|---|
| Which party pays | | TSO | common platform |

### 5.3.10 Dependencies governing the Balancing_MarketDocument

The balancing market document covers requirements for transmission of the clearing prices from the common platform to TSOs and the ENTSO-E transparency platform per imbalance settlement period. The same document will also be used for transmitting to the ENTSO-E transparency platform the aggregated balancing energy bids.

Note that due to the design of the optimisation algorithm in the common platform, prices for Up and Down regulation will always be equal.

Table 10 provides the dependencies for the balancing market document when the common sends clearing prices to the ENTSO-E transparency platform.

**Table 10 – Balancing market document dependency table (submission of clearing prices to transparency platform)**

| | | Use | XSD requirements |
|---|---|---|---|
| **Balancing_MarketDocument** | | | |
| mRID | Unique identification of the balancing market Document | Used | Mandatory |
| revisionNumber | Initial transmission shall equal "1" | Used | Mandatory |
| type | A84 = activated balancing price | Used | Mandatory |
| process.processType | A16 = Realised | Used | Mandatory |
| sender_MarketParticipant.mRID | EIC of the common platform Operator: 10X1001C--00006N | Used | Mandatory |
| sender_MarketParticipant.marketRole.type | A35 = MOL responsible | Used | Mandatory |
| receiver_MarketParticipant.mRID | 10X1001A1001A450 = EIC of the ENTSO-E transparency platform | Used | Mandatory |
| receiver_MarketParticipant.marketRole.type | A32 = Market information aggregator | Used | Mandatory |
| createdDateTime | Date and time of document creation | Used | Mandatory |
| docStatus | A01 = Intermediate<br>A02 = Final | Not used | Conditional |
| controlArea.Domain.mRID | Scheduling area described by the document | Used | Conditional |
| allocationDecision_DateAndOrTime | Date and time when the decision on allocation was made | Not used | Optional |
| period.timeInterval | The duration of the delivery period covered by the document. | Used | Mandatory |

| **TimeSeries** | | | |
|---|---|---|---|
| mRID | Unique identification of the time series | Used | Mandatory |
| businessType | A98 = replacement reserve | Used | Mandatory |
| acquiring_Domain.mRID | | Not used | Conditional |
| connecting_Domain.mRID | | Not used | Conditional |
| type_MarketAgreement.type | Identification of the procurement time unit. | Not used | Conditional |
| standard_MarketProduct.marketProductType | Used when the reported quantities refer to standard products:<br>A01 = Standard product | Used | Conditional |
| original_MarketProduct.marketProductType | Used when the reported quantities refer to specific products:<br>A02 = Specific product<br>A03 = Integrated scheduling process | Not used | Conditional |
| mktPSRType.psrType | Identification of the source type of the reserve | Not used | Conditional |
| flowDirection.direction | A01 = Up<br>A02 = Down | Used | Conditional |

| | | | |
|---|---|---|---|
| currency_Unit.name | EUR = Euro | Used | Conditional |
| quantity_Measure_Unit.name | MAW = Megawatts | Not used | Conditional |
| price_Measure_Unit.name | MWH= Megawatt hours | Used | Conditional |
| curveType | A01 = Sequential fixed block | Used | Conditional |
| cancelledTS | If the data for a time series has been cancelled this attribute shall be specified with A01 = Yes | Not used | Conditional |

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| **Period** | | | |
|---|---|---|---|
| timeInterval | A time interval equivalent to the delivery period | Used | Mandatory |
| resolution | PT15M | Used | Mandatory |

| **Point** | | | |
|---|---|---|---|
| position | Position within the time interval | Used | Mandatory |
| quantity | The accepted offer quantity identified for a point. | Not used | Conditional |
| secondaryQuantity | The activated quantity | Not used | Conditional |
| unavailable_Quantity.quantity | The unavailable quantity | Not used | Conditional |
| activation_Price.amount | The activation price for the quantity of reserve. | Used | Conditional |
| procurement_Price.amount | The procurement price for the quantity of reserve. | Not used | Conditional |
| min_Price.amount | The minimum price for the reserve | Not used | Conditional |
| max_Price.amount | The maximum price for the reserve | Not used | Conditional |
| imbalance_Price.amount | The imbalance price for the quantity of reserve. | Not used | Conditional |
| imbalance_Price.category | Identification whether the imbalance price is due to excess or insufficient balance. | Not used | Conditional |
| flowDirection.direction | A01 = Up<br>A02 = Down | Not used | Conditional |

| **Financial_Price (associated with Point)** | | **Not used** | **Conditional** |
|---|---|---|---|
| amount | | Not used | Mandatory |
| direction | | Not used | Conditional |

369

370 Table 11 provides the dependencies for the balancing market document when the common
371 platform sends the clearing prices to the TSO.

372 **Table 11 – Balancing market document dependency table (submission of clearing**
373 **prices to TSO)**

| | | **Use** | **XSD requirements** |
|---|---|---|---|
| **Balancing_MarketDocument** | | | |
| mRID | Unique identification of the balancing market Document | Used | Mandatory |

| | | | |
|---|---|---|---|
| revisionNumber | Initial transmission shall equal "1" | Used | Mandatory |
| type | A84 = activated balancing price | Used | Mandatory |
| process.processType | A16 = Realised | Used | Mandatory |
| sender_MarketParticipant.mRID | EIC of the common platform Operator: 10X1001C--00006N | Used | Mandatory |
| sender_MarketParticipant.marketRole.type | A35 = MOL responsible | Used | Mandatory |
| receiver_MarketParticipant.mRID | EIC of the Transmission System Operator | Used | Mandatory |
| receiver_MarketParticipant.marketRole.type | A04 = System operator | Used | Mandatory |
| createdDateTime | Date and time of document creation | Used | Mandatory |
| docStatus | A01 = Intermediate<br>A02 = Final | Not used | Conditional |
| controlArea.Domain.mRID | Scheduling area described by the document | Used | Conditional |
| allocationDecision_DateAndOrTime | Date and time when the decision on allocation was made | Not used | Optional |
| period.timeInterval | The duration of the delivery period covered by the document. | Used | Mandatory |

| **TimeSeries** | | | |
|---|---|---|---|
| mRID | Unique identification of the time series | Used | Mandatory |
| businessType | A98 = replacement reserve | Used | Mandatory |
| acquiring_Domain.mRID | | Not used | Conditional |
| connecting_Domain.mRID | | Not used | Conditional |
| type_MarketAgreement.type | Identification of the procurement time unit. | Not used | Conditional |
| standard_MarketProduct.marketProductType | Used when the reported quantities refer to standard products:<br>A01 = Standard product | Used | Conditional |
| original_MarketProduct.marketProductType | | Not used | Conditional |
| mktPSRType.psrType | Identification of the source type of the reserve | Not used | Conditional |
| flowDirection.direction | A03 = Up and Down | Used | Conditional |
| currency_Unit.name | EUR = Euro | Used | Conditional |
| quantity_Measure_Unit.name | MAW = Megawatts | Not used | Conditional |
| price_Measure_Unit.name | MWH= Megawatt hours | Used | Conditional |
| curveType | A01 = Sequential fixed block | Used | Conditional |
| cancelledTS | If the data for a time series has been cancelled this attribute shall be specified with A01 = Yes | Not used | Conditional |

374

| **Period** | | | |
|---|---|---|---|

| | | | |
|---|---|---|---|
| timeInterval | A time interval equivalent to the delivery period | Used | Mandatory |
| resolution | PT15M | Used | Mandatory |

| **Point** | | | |
|---|---|---|---|
| position | Position within the time interval | Used | Mandatory |
| quantity | The accepted offer quantity identified for a point. | Not used | Conditional |
| secondaryQuantity | The activated quantity | Not used | Conditional |
| unavailable_Quantity.quantity | The unavailable quantity | Not used | Conditional |
| activation_Price.amount | The activation price for the quantity of reserve. | Used | Conditional |
| procurement_Price.amount | The procurement price for the quantity of reserve. | Not used | Conditional |
| min_Price.amount | The minimum price for the reserve | Not used | Conditional |
| max_Price.amount | The maximum price for the reserve | Not used | Conditional |
| imbalance_Price.amount | The imbalance price for the quantity of reserve. | Not used | Conditional |
| imbalance_Price.category | Identification of whether the imbalance price is in excess or insufficient balance. | Not used | Conditional |
| flowDirection.direction | A01 = Up<br>A02 = Down | Not used | Conditional |

| **Financial_Price (associated with Point)** | | **Not used** | **Conditional** |
|---|---|---|---|
| amount | | Not used | Mandatory |
| direction | | Not used | Conditional |

375

376 Table 12 provides the dependencies for the balancing market document when the common
377 platform sends aggregated balancing energy bids to the ENTSO-E transparency platform.

378 **Table 12 – Balancing market document dependency table (submission of aggregated**
379 **bids to transparency platform)**

| | | **Use** | **XSD requirements** |
|---|---|---|---|
| **Balancing_MarketDocument** | | | |
| mRID | Unique identification of the balancing market Document | Used | Mandatory |
| revisionNumber | Initial transmission shall equal "1" | Used | Mandatory |
| type | A24 = Bid document | Used | Mandatory |
| process.processType | A46 = Replacement reserve (RR) | Used | Mandatory |
| sender_MarketParticipant.mRID | EIC of the common platform Operator: 10X1001C--00006N | Used | Mandatory |
| sender_MarketParticipant.marketRole.type | A35 = MOL responsible | Used | Mandatory |
| receiver_MarketParticipant.mRID | 10X1001A1001A450 = EIC of the ENTSO-E transparency platform | Used | Mandatory |
| receiver_MarketParticipant.marketRole.type | A32 = Market information aggregator | Used | Mandatory |
| createdDateTime | Date and time of document creation | Used | Mandatory |
| docStatus | A01 = Intermediate<br>A02 = Final | Not used | Conditional |
| controlArea.Domain.mRID | Scheduling area described by the document | Used | Conditional |

| | | | |
|---|---|---|---|
| allocationDecision_DateAndOrTime | Date and time when the decision on allocation was made | Not used | Optional |
| period.timeInterval | The duration of the delivery period covered by the document | Used | Mandatory |

| **TimeSeries** | | | |
|---|---|---|---|
| mRID | Unique identification of the time series | Used | Mandatory |
| businessType | A14 = Aggregated energy data | Used | Mandatory |
| acquiring_Domain.mRID | | Not used | Conditional |
| connecting_Domain.mRID | | Not used | Conditional |
| type_MarketAgreement.type | Identification of the procurement time unit. | Not used | Conditional |
| standard_MarketProduct.marketProductType | Used when the reported quantities refer to standard products:<br>A01 = Standard product | Used | Conditional |
| original_MarketProduct.marketProductType | Used when the reported quantities refer to specific products:<br>A02 = Specific product<br>A03 = Integrated scheduling process | Not used | Conditional |
| mktPSRType.psrType | Identification of the source type of the reserve | Not used | Conditional |
| flowDirection.direction | A01 = Up<br>A02 = Down | Used | Conditional |
| currency_Unit.name | | Not used | Conditional |
| quantity_Measure_Unit.name | MAW = Megawatts | Used | Conditional |
| price_Measure_Unit.name | | Not used | Conditional |
| curveType | A01 = Sequential fixed block | Used | Conditional |
| cancelledTS | If the data for a time series has been cancelled this attribute shall be specified with A01 = Yes | Not used | Conditional |

380

| **Period** | | | |
|---|---|---|---|
| timeInterval | A time interval equal to the delivery period | Used | Mandatory |
| resolution | PT15M | Used | Mandatory |

| **Point** | | | |
|---|---|---|---|
| position | Position within the time interval | Used | Mandatory |
| quantity | The offered quantity | Used | Conditional |
| secondaryQuantity | The activated quantity | Used | Conditional |
| unavailable_Quantity | The unavailable quantity | Used | Conditional |
| activation_Price.amount | The activation price for the quantity of reserve. | Not used | Conditional |
| procurement_Price.amount | The procurement price for the quantity of reserve. | Not used | Conditional |
| min_Price.amount | The minimum price for the reserve | Not used | Conditional |
| max_Price.amount | The maximum price for the reserve | Not used | Conditional |
| imbalance_Price.amount | The imbalance price for the quantity of reserve. | Not used | Conditional |
| imbalance_Price.category | Identification whether the imbalance price is due to excess or insufficient balance. | Not used | Conditional |

| | | | |
|---|---|---|---|
| flowDirection.direction | A01 = Up<br>A02 = Down | Not used | Conditional |

| **Financial_Price (associated with Point)** | | **Not used** | **Conditional** |
|---|---|---|---|
| amount | | Not used | Mandatory |
| direction | | Not used | Conditional |

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382

### 5.3.11 Dependencies governing the Reporting_MarketDocument

The reporting market document covers requirements for transmission by the common platform to the ENTSO-E verification platform of the aggregated netted external TSO schedule for the net balancing position between the common platform and the TSO's scheduling area. It should be noted that this schedule only describes the outcome of the RR process.

There will be separate virtual scheduling areas corresponding to the regions for RR.

Table 13 provides the dependencies for the reporting market document.

**Table 13 – Reporting market document dependency table**

| | | Used | XSD Requirements |
|---|---|---|---|
| **Reporting_MarketDocument** | | | |
| mRID | Unique identification of the reporting market Document | Used | Mandatory |
| revisionNumber | Initial transmission shall equal "1" | Used | Mandatory |
| type | B17 = Aggregated netted external TSO schedule document | Used | Mandatory |
| process.processType | A18 = Total intraday | Used | Mandatory |
| sender_MarketParticipant.mRID | EIC of the common platform Operator: 10X1001C--00006N | Used | Mandatory |
| sender_MarketParticipant.marketRole.type | A35 = MOL responsible | Used | Mandatory |
| receiver_MarketParticipant.mRID | 10V000000000009D<br>V-code of the verification platform | Used | Mandatory |
| receiver_MarketParticipant.marketRole.type | A32 = Market information aggregator | Used | Mandatory |
| createdDateTime | Date and time of document creation. Expressed in UTC | Used | Mandatory |
| time_Period.timeInterval | The period covered by the document expressed in UTC. The period must cover a complete scheduling day. | Used | Mandatory |
| domain.mRID / codingScheme | The common platform's virtual scheduling area identified with an EIC Y code.<br>codingScheme = A01 | Used | Mandatory |
| subject_Domain.mRID / codingScheme | The common platform's virtual scheduling area identified with an EIC Y code.<br>codingScheme = A01 | Used | Mandatory |

| **TimeSeries** | | | |
|---|---|---|---|
| mRID | Unique identification of the time series. | Used | Mandatory |
| businessType | B62 = Aggregated netted external TSO schedule | Used | Mandatory |
| product | 8716867000016 = Active Power. | Used | Mandatory |
| in_Domain.mRID / codingScheme | A scheduling area where the product is being delivered identified with an EIC Y code.<br>codingScheme = A01. | Used | Mandatory |
| out_Domain.mRID / codingScheme | A scheduling area where the product is being extracted identified with an EIC Y code.<br>codingScheme = A01. | Used | Mandatory |
| connectingLine_RegisteredResource.mRID | Required if DC link or controllable AC link | Not used | Conditional |
| quantity_Measure_Unit.name | MAW = Mega watts | Used | Mandatory |
| curveType | A03 = Variable block | Used | Mandatory |
| **Period** | | | |
| timeInterval | The start and end time of the period expressed in UTC. | Used | Mandatory |
| resolution | PT1M = 1 minute | Used | Mandatory |
| **Point** | | | |
| position | The relative position of the point in relation to the start time interval. | Used | Mandatory |
| quantity | The quantity representing the net position. | Used | Mandatory |

Note 1: The in_Domain or the out_Domain must identify the region, also referred to as the virtual scheduling area. The other domain shall be equivalent to a TSO's scheduling area.

Note 2: There is a time series for both directions, one of the directions must equal zero.

Note 3: No references to connecting lines are included since net positions are reported.

Note 4: Exceptionally and temporarily, the net position for Terna will be reported per control area.

# Contextual and assembly models

## 6.1 Capacity market document

The contextual and assembly models for the capacity market document shall be based on the equivalent models as defined in urn:iec62325.351:tc57wg16:451-3:capacitydocument:8:0.

## 6.2 HVDCLink market document

The contextual and assembly models for the HVDC link market document shall be based on the equivalent models as defined in urn:iec62325.351:tc57wg16:451-8:hvdclinkdocument:1:0.

## 6.3 Reserve bid market document

The contextual and assembly models for the reserve bid market document shall be based on the equivalent models as defined in urn:iec62325.351:tc57wg16:451-7:reservebiddocument:7:1.

## 6.4 Merit order list market document

The contextual and assembly models for the merit order list market document shall be based on the equivalent models as defined in urn:iec62325.351:tc57wg16:451-7:moldocument:7:2.

## 6.5 Schedule market document

The contextual and assembly models for the schedule market document shall be based on the equivalent models as defined in urn:iec62325.351:tc57wg16:451-2:scheduledocument:5:1.

## 6.6 Energy account market document

The contextual and assembly models for the energy account market document shall be based on the equivalent models as defined in urn:iec62325.351:tc57wg16:451-4:energyaccountdocument:4:0.

## 6.7 Balancing market document

The contextual and assembly models for the balancing market document shall be based on the equivalent models as defined in urn:iec62325.351:tc57wg16:451-6:balancingdocument:4:0.

## 6.8 Reporting market document

The contextual and assembly models for the reporting market document shall be based on the equivalent models as defined in urn:iec62325.351:tc57wg16:451-n:reportingdocument:2:0.

## 6.9 Acknowledgement document

The contextual and assembly models for the acknowledgement document shall be based on the equivalent models as defined in urn:iec62325.351:tc57wg16:451-1:acknowledgementdocument:8:0.

## 6.10 Problem statement document

The contextual and assembly models for the problem statement document shall be based on the equivalent models as defined in urn:iec62325.351:tc57wg16:451-5:problemdocument:3:0.

## XML schema

All XML schemas for the replacement reserve process are available for download from the ENTSO-E website.