Balance Management System

**Balancing Bid Management**

**Implementation Guide**

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# Introduction

Balance Management System is a system operated by AST that includes several modules for system operations and management and data exchange with electricity market participants and other relevant parties.

The Bid Management module is the integral part of the Balance Management System and it includes the functionalities and services that are necessary for balancing service provision.

The goal of this document is to provide detailed insight on data exchange rules and requirements for Balance Service Providers to be able to perform necessary adjustments in their local systems and to implement the message exchange with the BMS regarding the balancing service provision.

# Scope

This document describes the data exchange rules and form between BSPs local system and the Bid Management module of the Balance Management System that is relevant for balancing service provision. The library of \*.xsd schemas is provided as addition to this implementation guide.

Other technical details necessary for implementation that are not included in this document should be requested separately by contacting the representative indicated on the AST website.

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

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

*Common Platform for manually activated restoration reserves IMPLEMENTATION GUIDE*

*ENTSO-E Common information model (CIM) European style market profile user guide VERSION 3.0*

*ENTSO-E Acknowledgement document – UML model and schema VERSION 1.1*

*ENTSO-E Reserve Bid document – UML model and schema VERSION 1.4*

*ENTSO-E Activation document – UML model and schema VERSION 1.2*

*Balancing market rules*

*Rules for Providing the Balancing Service under the System Ancillary Service Agreement.*

## Applicable EDI documents

|  |  |  |
| --- | --- | --- |
| Message | EDI document | Version |
| Balancing Bid | Reserve Bid Market Document | urn:iec62325.351:tc57wg16:451-7:reservebiddocument:7:3 |
| Balancing Bid update | Reserve Bid Market Document | urn:iec62325.351:tc57wg16:451-7:reservebiddocument:7:3 |
| Activation Order | Activation Document | urn:iec62325.351:tc57wg16:451-7:activationdocument:6:3 |
| Activation Order Response | Activation Document | urn:iec62325.351:tc57wg16:451-7:activationdocument:6:3 |
| ACK | Acknowledgement Document | urn:iec62325.351:tc57wg16:451-1:acknowledgementdocument:8:1 |
| Confirmation document | Confirmation Market Document | urn:iec62325.351:tc57wg16:451-2-confirmation:5:3 |
| Generation schedule and consumption schedule (baseline) | Energy Account Market Document | urn:iec62325.351:tc57wg16:451-4:energyaccountdocument:4:0 |
| Energy control metering data | Energy Account Market Document | urn:iec62325.351:tc57wg16:451-4:energyaccountdocument:4:0 |

The actual XSD schemas are available on ENTSO-E website, following the link: <https://www.entsoe.eu/publications/electronic-data-interchange-edi-library/>

## Available channels for file based data exchange

For file-based data exchange the following channels will be supported:

* WebService (SOAP);
* SFTP;
* E-mail (SMTP/IMAP) - *backup communication channel if other communication channels are unavailable, if not set differently in Rules for balancing service provision;*
* BMS external portal – *only for data exchange from BSP to BMS (incoming).*

*For incoming and outgoing data exchange different combination of communication channels can be configured. To agree on possible combination for communication please provide a request to* [*bvs.atbalsts@ast.lv*](mailto:bvsatbalsts@ast.lv)

# Terms and definitions

The Terms used in this Implementation guide that are not explained are used in the sense that they are used in Rules for Providing the Balancing Service under the System Ancillary Service Agreement.

Acronyms

|  |  |
| --- | --- |
| Acronym | Name |
| ACK | Acknowledgement |
| AO | Activation order |
| AOF | Activation Optimisation Function |
| AOR | Activation order response |
| BMS | Balance Management System |
| BSP | Balance Service Provider |
| CIM | Common Information Model |
| CMOL | Common Merit Order List |
| EDI | Electronic Data Interchange |
| EET | East European Time |
| GCT | Gate Closure Time |
| GOT | Gate Open Time |
| GUI | General User Interface |
| MAW | Megawatts |
| MARI | Manually Activated Reserve Initiative |
| MOL | Merit Order List |
| MTU | Market Time Unit |
| TSO | Transmission System Operator |
| UTC | Universal Time Conversion (Coordinated Universal Time) |
| XML | Extensible Markup Language |
| SA | Scheduled activation |
| DA | Direct activation |

# mFRR business process for standard products (process for CoBA)

**This chapter is in force until TSO becomes MARI operational member that is foreseen for 2024 Q4**

## General overview

A screenshot of a diagram

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A screenshot of a computer screen

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Process diagram depicts the general overview of subprocesses regarding balancing service provision with a focus on data exchange between parties.

During the time period of D-1 12:00 until GCT the BSP shall submit balancing bids to TSO. Until the GCT they can be modified, withdrawn or new bids can be added. After the GCT the TSO provides the bids to Baltic Balancing market and only in case of technical issues (e.g., unexpected technical issues with reserve unit, disconnection from the grid, temperature limits exceeded, others) the BSP is allowed to update the bid it has provided.

Based on the market results and system needs the activation order is issued and sent to the BSP, after which the BSP activates the reserve in time period specified in the said activation order. Additionally, the BSP is obliged to provide activation order response to notify the TSO about the amount of the capacity activated.

In not more than 2 working days after the activation the TSO provides to BSP the report about the amount of energy delivered in the activation and the price of it. The BSP accepts the report, or in case of not agreeing on the received report - provides the grounds of changes that need to be done in the said report.

Based on these reports agreed on during the settlement period, the act on balancing energy supplied during settlement period will be provided and the settlement will take place. The act provision and settlement processes are indicated only as context and are not a subject of this implementation guide.

## A black background with white lines Description automatically generatedSequence diagram

## Business rules

### General rules

For each file-based 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.

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

For Reserve Bid Market Documents, data providers may submit higher versions containing updated bids only as detailed in chapter 5.3.2 (and 6.1). For all other documents, higher versions must contain the same number of time series and cover the same time interval.

The BMS will as far as technically feasible validate that submitted data complies with the business rules and permitted combinations of attributes as articulated by this implementation guide. Any data submission that fails such validation will be rejected by the system. BSP shall not submit a higher version of a document before it has received acknowledgement of previous version. This rule must be implemented locally. A data submission that violates this rule may result in data not processed properly by the BMS; bids may be ignored, for example.

The timing restrictions provided in business rules are according to EET, the data included in XML documents should be represented in UTC time.

In case of unavailability of Web Service the BSP can use GUI for manual upload of XML documents.

### Bid submission

**Balancing bid data exchange schema**

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**Dependencies governing Balancing Bid document**

All information about the bid is included in the bid document that is provided by BSP to TSO. Submission of bids for next EET day can be done no earlier than D-1 12:00 EET. The maximum period of time series is 24h. The bids can be provided not later than 45 minutes before the corresponding MTU.

BSP is responsible to provide unique bid time series identification and document identification. The times series identification of already submitted bid is used to refer to the bid in next documents (possibly with different document identification) to make changes in the bid or withdraw it.

The BMS will perform validation of the bid, checking the maximum allowed capacity of the Reserve unit that is included in the bid information and several other limitations that should be followed and are in line with the Rules for balancing service provision.

The document time period is used to provide information about the period under consideration. When providing consecutive versions of the bid, if the time period of bid included in the document is shorter than document time period, the bid time period that is not included in bid time series period but is covered by document time period is going to be deleted, it only applies if in previous versions this period was covered by the time series. For more detailed explanation please see chapter 6.1.

Only bids to be updated or newly added bids should be included in document. The bids that are not included but were sent in previous document/-s remain unchanged.

To completely withdraw the bid the appropriate bid document should be sent including the whole time series period and bid status should be set to withdrawn.

**Document structure diagram**

A diagram of a data flow

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**Document element description**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Tag** | | | | | | **Value** | **Mandatory[[1]](#footnote-2)** | **Description** | **Conditions** |
| **Header** | | | | | |  |  |  |  |
| mRID | | | | | | (1..35 chars) | YES | Unique identification of the Bid Document |  |
| revisionNumber | | | | | | (1….3 chars) | YES | Document version | Initial transmission shall equal "1". Every next version should be higher than previous. |
| type | | | | | | A37 | YES | Type of the document | A37 - Reserve Bid document |
| process.processType | | | | | | A47 | NO | The process type identifies the process to which the information flow is directed. | A47 - Manual frequency restoration reserves(mFRR) |
| Sender\_MarketParticipant.mRID | | | | | | (1…16 chars) | YES | Identification of the party who is sending the document | EIC of party who is sending the document |
| Sender\_MarketParticipant.MarketRoleType | | | | | | A27 | YES | Identification of the role that is played by the sender. | A27 – resource provider |
| Receiver\_MarketParticipant.mRID | | | | | | 10X1001A1001B54W | YES | Identification of the party who is receiving the document | TSO EIC code.  10X1001A1001B54W –AST |
| Receiver\_MarketParticipant.MarketRoleType | | | | | | A04 | YES | Identification of the receiver role | A04 – System operator |
| CreatedDateTime | | | | | | UTC DateTime | YES | Date and time of document creation | The date and time must be expressed in UTC as YYYY-MM-DDTHH:MM:SSZ. |
| reserveBid\_Period.timeInterval | | | | | |  |  |  |  |
| start | | | | | UTC DateTime | YES | The beginning date and time of the period covered by the document. | The start and end date and time must be expressed in UTC time zone and as YYYY-MM-DDTHH:MMZ. |
| end | | | | | UTC DateTime | YES | Ending date and time of the period covered by the document. | The start and end date and time must be expressed in UTC time zone and as YYYY-MM-DDTHH:MMZ. |
| domain.mRID | | | | | | 10YLV-1001A00074 | YES | EIC of area covered by sender | EIC code of Latvia:  10YLV-1001A00074 |
| subject\_MarketParticipant.mRID | | | | | | 10X1001A1001B54W | NO | The identification of a party in the energy market | EIC of party who is providing the bid |
| subject\_MarketParticipant.MarketRoleType | | | | | | A04 | NO | The identification of the role played by a market player | A27 – resource provider |
|  | | **Bid\_TimeSeries** | | | |  |  |  |  |
|  | | mRID | | | | (1..35 chars) | YES | Unique identification of the bid assigned by BSP |  |
|  | | auction.mRID | | | | BalticCoBA | NO | A unique identification assigned by the Reserve Allocator of the set of specifications that clearly defines the auction to which the tender is addressed.  For general reference purposes only. | Constant value: Baltic CoBA |
|  | | businessType | | | | B74 | YES | The nature of the time series for which the product is handled. | B74 - Offer |
|  | | acquiring\_Domain.mRID | | | | 10YLV-1001A00074 | YES | The EIC identification of the scheduling area where the energy is going | Equal to connecting\_Domain.mRID  EIC code of Latvia:  10YLV-1001A00074 |
|  | | connecting\_Domain.mRID | | | | 10YLV-1001A00074 | YES | The area where the energy is coming from | EIC code of Latvia:  10YLV-1001A00074 |
|  | | provider\_MarketParticipant.mRID | | | | (1…16 chars) | NO | A unique identification of the Resource Provider responsible for reserve bid | EIC of the BSP |
|  | | quantity\_Measurement\_Unit.name | | | | MAW | YES | The unit of measurement used for the quantities expressed within the time series. | Always expressed in megawatts – MAW |
|  | | currency\_Unit.name | | | | EUR | NO | The currency in which the monetary amount is expressed. | Constant value: EUR |
|  | | Divisible | | | | A01  A02 | YES | The indication of whether or not the activated quantity can be lower than offered. | A01 - Yes (divisible)  A02 - No (not divisible) |
|  | | LinkedBidIdentification | | | | (1…35 chars) | NO | The identification used to associate bids that are to be linked together. If the bid is not linked then the attribute is not used. | Example:  Bid B is linked with bid A.  Bid B can be activated only after bid A is activated. Bid B need to have bid A ID. |
|  | | status | | | | A06  A1=3 | NO | The status of the bid. | The following Status codes permitted:  A06 - Available  A13 - Withdrawn |
|  | | registeredResource.mRID | | | | (1…18 chars) | NO | Identification of the resource that will be used to supply the energy | EIC code of Reserve Unit.  For example specific power generating module or demand unit or group qualified by TSO. |
|  | | flowDirection.direction | | | | A01  A02 | YES | This identifies the direction of the energy flow. | A01 - UP;  A02 - DOWN. |
|  | | marketAgreement.type | | | | A01  Z59 | NO | The type of the market agreement | If mFRR, then A01 - Daily  If ER mFRR, then:  Z59 - Volume ER mFRR (100 MW) |
|  | | marketAgreement.mRID | | | | (1…18 chars) | NO | Market agreement identification | If mFRR free bid, then not used;  If ER mFRR then procurement or auction agreement ID for capacity. |
|  | | standard\_MarketProduct.marketProductType | | | | A07 | NO | Used when the bid refers to a standard product | A07 - Standard mFRR product eligible for scheduled and direct activation |
|  | |  | **Period** | | |  |  |  |  |
|  | |  | TimeInterval | | |  |  |  |  |
|  | |  | | start | | UTC DateTime | YES | The beginning date and time of the period. | The start and end date and time must be expressed in UTC time zone and as YYYY-MM-DDTHH:MMZ. |
|  | |  | | end | | UTC DateTime | YES | Ending date and time of the period. | The start and end date and time must be expressed in UTC time zone and as YYYY-MM-DDTHH:MMZ. |
|  | |  | Resolution | | | PT60M | YES | The resolution defining the number of periods that the time interval is divided. | Time resolution for bid is equal to MTU in compliance with following format: PnYnMnDTnHnMnS. |
|  | |  |  | | **Point** |  |  |  |  |
|  | |  |  | | position | (1…6 chars) | YES | Position within the time interval |  |
|  | |  |  | | quantity.quantity | (1…17 numeric chars)  Min = 1MW, resolution 1MW | YES | Quantity offered | That is expressed in the quantity\_Measure\_Unit.name |
|  | |  |  | | minimum\_Quantity.quantity | 1 | NO | Minimum bid quantity to be activated | If divisible = yes, then fixed value = 1 MW, if divisible = no, then not used. |
|  | |  |  | | Energy\_Price.amount | (1…17 numeric chars) | NO | The price of the energy | Not more than two decimal positions can be included. |

### Update of bid after GCT

**Bid update data exchange schema**

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**Dependencies governing Balancing Bid Update document**

The same document as for balancing bid document is used for Balancing Bid Update submission. Balancing bid can be update in case of unexpected technical limitations in any moment after H-38 min but not later than 5 minutes before activation order creation or the end of market time unit.

The balancing bid update should contain only the corresponding market time unit data that is being updated, the appropriate bid time series identification should be used. Only the quantity and status updates are allowed, all other fields of the document should match the last bid version before the GCT.

The start of time period for which the update is done should be in future and end of time period should be the end of corresponding MTU. In case the bid times series will contain the time period partly or fully in the past the bid update will be rejected.

The quantity specified in bid document should correspond to remaining available quantity. The updated bid document should contain the remaining quantity (that can't be higher than original quantity) and the bid status - available. If the whole amount is unavailable the quantity should be set to 0 MW. It should be noted that each bid update document should have a unique mRID. Sending next version is allowed only in case previous one was not successfully validated and document was rejected.

**Document structure diagram –** see chapter 5.2.2.

**Document element description**

The value of **grey** coloured tags should be the same as in the original Bid document provided by BSP.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Tag** | | | | | | **Value** | **Mandatory[[2]](#footnote-3)** | **Description** | **Conditions** |
| **Header** | | | | | |  |  |  |  |
| mRID | | | | | | (1..35 chars) | YES | Unique identification of the Bid Document |  |
| revisionNumber | | | | | | (1….3 chars) | YES | Document version | Initial transmission shall equal "1". Every next version should be higher than previous. |
| type | | | | | | Z42 | YES | Type of the document | Z42 - Reserve Bid Update document |
| process.processType | | | | | | A47 | NO | The process type identifies the process to which the information flow is directed. | A47 - Manual frequency restoration reserves(mFRR) |
| Sender\_MarketParticipant.mRID | | | | | | (1…16 chars) | YES | Identification of the party who is sending the document | EIC of party who is sending the document |
| Sender\_MarketParticipant.MarketRoleType | | | | | | A27 | YES | Identification of the role that is played by the sender. | A27 – resource provider |
| Receiver\_MarketParticipant.mRID | | | | | | 10X1001A1001B54W | YES | Identification of the party who is receiving the document | TSO EIC code.  10X1001A1001B54W –AST |
| Receiver\_MarketParticipant.MarketRoleType | | | | | | A04 | YES | Identification of the receiver role | A04 – System operator |
| CreatedDateTime | | | | | | UTC DateTime | YES | Date and time of document creation | The date and time must be expressed in UTC as YYYY-MM-DDTHH:MM:SSZ. |
| **reserveBid\_Period.timeInterval** | | | | | |  |  |  |  |
| start | | | | UTC DateTime | YES | The beginning date and time of the period covered by the document. | The start and end date and time must be expressed in UTC time zone and as YYYY-MM-DDTHH:MMZ. |
| end | | | | UTC DateTime | YES | Ending date and time of the period covered by the document. | The start and end date and time must be expressed in UTC time zone and as YYYY-MM-DDTHH:MMZ. |
| domain.mRID | | | | | | 10YLV-1001A00074 | YES | EIC of area covered by sender | EIC code of Latvia:  10YLV-1001A00074 |
| subject\_MarketParticipant.mRID | | | | | | 10X1001A1001B54W | NO | The identification of a party in the energy market | EIC of party who is providing the bid |
| subject\_MarketParticipant.MarketRoleType | | | | | | A04 | NO | The identification of the role played by a market player | A27 – resource provider |
|  | **Bid\_TimeSeries** | | | | |  |  |  |  |
|  | mRID | | | | | (1..35 chars) | YES | Unique identification of the bid assigned by BSP |  |
|  | auction.mRID | | | | | BalticCoBA | NO | A unique identification assigned by the Reserve Allocator of the set of specifications that clearly defines the auction to which the tender is addressed.  For general reference purposes only. | Constant value: Baltic CoBA |
|  | businessType | | | | | B74 | YES | The nature of the time series for which the product is handled. | B74 - Offer |
|  | acquiring\_Domain.mRID | | | | | 10YLV-1001A00074 | YES | The EIC identification of the scheduling area where the energy is going | Equal to connecting\_Domain.mRID  EIC code of Latvia:  10YLV-1001A00074 |
|  | connecting\_Domain.mRID | | | | | 10YLV-1001A00074 | YES | The area where the energy is coming from | EIC code of Latvia:  10YLV-1001A00074 |
|  | provider\_MarketParticipant.mRID | | | | | (1…16 chars) | NO | A unique identification of the Resource Provider responsible for reserve bid | EIC of the BSP |
|  | quantity\_Measurement\_Unit.name | | | | | MAW | YES | The unit of measurement used for the quantities expressed within the time series. | Always expressed in megawatts – MAW |
|  | currency\_Unit.name | | | | | EUR | NO | The currency in which the monetary amount is expressed. | Constant value: EUR |
|  | Divisible | | | | | A01  A02 | YES | The indication of whether or not the activated quantity can be lower than offered. | A01 - Yes (divisible)  A02 - No (not divisible) |
|  | LinkedBidIdentification | | | | | (1…35 chars) | NO | The identification used to associate bids that are to be linked together. If the bid is not linked then the attribute is not used. | Example:  Bid B is linked with bid A.  Bid B can be activated only after bid A is activated. Bid B need to have bid A ID. |
|  | status | | | | | A06 | NO | The status of the bid. | The following Status codes permitted:  A06 - Available |
|  | registeredResource.mRID | | | | | (1…18 chars) | NO | Identification of the resource that will be used to supply the energy | EIC code of Reserve Unit.  For example specific power generating module or demand unit or group qualified by TSO. |
|  | flowDirection.direction | | | | | A01  A02 | YES | This identifies the direction of the energy flow. | A01 - UP;  A02 - DOWN. |
|  | marketAgreement.type | | | | | A01  Z59 | NO | The type of the market agreement | If mFRR, then A01 - Daily  If ER mFRR, then:  Z59 - Volume ER mFRR (100 MW) |
|  | marketAgreement.mRID | | | | | (1…18 chars) | NO | Market agreement identification | If mFRR free bid, then not used;  If ER mFRR then procurement or auction agreement ID for capacity. |
|  | standard\_MarketProduct.marketProductType | | | | | A07 | NO | Used when the bid refers to a standard product | A07 - Standard mFRR product eligible for scheduled and direct activation |
|  |  | | **Period** | | |  |  |  |  |
|  |  | | TimeInterval | | |  |  |  |  |
|  |  | | | start | | UTC DateTime | YES | The beginning date and time of the period. | The start and end date and time must be expressed in UTC time zone and as YYYY-MM-DDTHH:MMZ. |
|  |  | | | end | | UTC DateTime | YES | Ending date and time of the period. | The start and end date and time must be expressed in UTC time zone and as YYYY-MM-DDTHH:MMZ. |
|  |  | | Resolution | | | PT60M | YES | The resolution defining the number of periods that the time interval is divided. | Time resolution according to the TimeInterval but not more than PT60M in compliance with following format: PnYnMnDTnHnMnS |
|  |  | |  | | **Point** |  |  |  |  |
|  |  | |  | | position | (1…6 chars) | YES | Position within the time interval | Not more than 1 position allowed. |
|  |  | |  | | quantity.quantity | (1…17 numeric chars)  Min = 0 MW, resolution 1MW | YES | Quantity offered | That is expressed in the quantity\_Measure\_Unit.name |
|  |  | |  | | minimum\_Quantity.quantity | 1 | NO | Minimum bid quantity to be activated | If divisible = yes, then fixed value = 1 MW, if divisible = no, then not used. |
|  |  | |  | | Energy\_Price.amount | (1…17 numeric chars) | NO | The price of the energy | Not more than two decimal positions can be included. |
| **Reason** | | | | | |  |  |  |  |
| Code | | | | | | (1…3 chars) | YES | Refer to the ENTSO-E reason codelist for appropriate codes | In case of bid update: B16 - A tender that has been requested is no longer available in the MOL. |
| Text | | | | | | (1…150 chars) | NO | Description of the reason | Reason of the unavailability should be provided in the reason text part. |

### Activation order and response to Activation order

**Bid activation data exchange schema**

A black background with white lines

Description automatically generated

**Dependencies governing Activation order document**

Activation order document is provided by TSO to BSP. Activation order can be provided not earlier than GCT of the Bid submission and not later than the end of MTU. Activation order covers not more than one MTU, it can be updated until end of the MTU. The activation according to the time period and quantity specified in activation order should be performed by BSP.

**AO Document structure diagram**

A screenshot of a computer screen

Description automatically generated

**Document element description**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Tag** | | | | | | | **Value** | | **Mandatory[[3]](#footnote-4)** | **Description** | **Conditions** | |
| **Header** | | | | | | |  | |  |  |  | |
| mRID | | | | | | | (1…35 chars) | | YE S | Unique identification of the document for which the time series data is being supplied. | All additions, modifications, or suppressions for the time series and activation period must use the same identification. | |
| revisionNumber | | | | | | | (1…3 chars) | | YE S | Document version | Starts at 1 and increases sequentially. | |
| type | | | | | | | A40 | | YE S | Type of the document | A40 - Activation order | |
| process.processType | | | | | | | A30 | | NO | The process type identifies the process to which the information flow is directed. | A30 –Tertiary reserve process | |
| sender\_MarketParticipant.mRID | | | | | | | 10X1001A1001B54W | | YE S | Identification of the party that is the owner of the document | TSO EIC code.  10X1001A1001B54W –AST | |
| sender\_MarketParticipant.marketRole.type | | | | | | | A04 | | YE S | Identification of the role that is played by the sender. | A04 – System operator | |
| receiver\_MarketParticipant.mRID | | | | | | | (1…16 chars) | | YE S | Identification of the party who is receiving the document | EIC of party who is sending the document | |
| receiver\_MarketParticipant.marketRole.type | | | | | | | A27 | | YE S | Identification of the receiver role | A27 – resource provider | |
| createdDateTime | | | | | | | UTC DateTime | | YE S | The date and time that the document was prepared for transmission by the application of the sender. | The date and time must be expressed in UTC as YYYY-MM-DDTHH:MM:SSZ. | |
| activation\_Time\_Period.timeInterval | | | | | | |  | |  |  |  | |
| start | | | | | UTC DateTime interval | | YE S | This information provides the start date and time of the activation period | The start date and time must be expressed in UTC time zone and as YYYY-MM-DDTHH:MMZ | |
| end | | | | | UTC DateTime interval | | YE S | This information provides the end date and time of the activation period | The end date and time must be expressed in UTC time zone and as YYYY-MM-DDTHH:MMZ | |
| domain.mRID | | | | | | | 10Y1001A1001A94A | | YE  S | EIC of area | Synchronous area of Baltic states- 10Y1001A1001A94A | |
|  | | **TimeSeries** | | | | |  |  |  |  |
|  | | mRID | | | | | (1..35 chars) | YE S | Unique identification of the bid being activated | mRID of Bid\_TimeSeries of the Reserve Bid Document being activated. |
|  | | resourceProvider\_MarketParticipant.mRID | | | | | (1…16 chars) | YE S | A unique identification of the Resource Provider responsible for reserve activation | BSP EIC code |
|  | | businessType | | | | | Z54 | YE S | The nature of the time series for which the product is handled. | Z54 – Volume for mFRR standard product  Z59 - Volume ER mFRR specific product NERC (100 MW); |
|  | | acquiring\_Domain.mRID | | | | | (1…16 chars) | YE S | The area where the reserve is contracted for use (destined) | EIC code.  For normal activation:  10Y1001A1001A94A -Synchronous area of Baltic states  For special activation:  10YLV-1001A00074 -Latvia  10Y1001A1001A39I -Estonia  10YLT-1001A0008Q – Lithuania  10YFI-1--------U – Finland  10YSE-1--------K – Sweden  10YPL-AREA-----S –Poland  10Y1001A1001A49F -Russian area  10Y1001A1001A51S –Belarus area |
|  | | connecting\_Domain.mRID | | | | | 10YLV-1001A00074 | YE S | The area where the energy is coming from | EIC code.  10YLV-1001A00074 –Latvia |
|  | | measurement\_Unit.name | | | | | MAW | YE S | The unit of measurement used for the quantities expressed within the time series. | Always expressed in megawatts -MAW |
|  | | flowDirection.direction | | | | | A01  A02 | YE S | This identifies the direction of the energy flow. | A01 = UP  A02 = DOWN |
|  | | marketObjectStatus.status | | | | | A08 | YE S | The status of the specific activation request. | A08 = In process – the quantities in the time series are requested for activation. |
|  | | registeredResource.mRID | | | | | (1…18 chars) | NO | Identification of the resource that is used to supply energy capabilities to the System Operator. | EIC code or Reserve Unit |
|  | |  | **Period** | | | |  |  |  |  |
|  | |  | timeInterval | | | |  |  |  |  |
|  | |  | | start | | | UTC DateTime interval | YE S | This information provides the start date and time of the activation period | The start date and time must be expressed in UTC time zone and as YYYY-MM-DDTHH:MMZ |
|  | |  | | end | | | UTC DateTime interval | YE S | This information provides the end date and time of the activation period | The end date and time must be expressed in UTC time zone and as YYYY-MM-DDTHH:MMZ |
|  | |  | resolution | | | | PTnM | YE S | The resolution defining the number of periods that the time interval is divided. | According to form: PnYnMnDTnHnMnS.  Where nM expresses the number of minutes. |
|  | |  |  | **Point** | | |  |  |  |  |
|  | |  |  | | position | | (1…6 chars) | YE S | This information provides the relative position of a period within an activation interval | The relative position must be expressed as a numeric integer value beginning with 1.  All leading zeros must be suppressed. |
|  | |  |  | | quantity | | (1…17 numeric chars) | YES | This information defines the quantity that is to be activated for the interval in question and that is expressed in the Measurement Unit Quantity. |  |
|  | | **Reason** | | | | |  |  |  |  |
| |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | |  | Time series |  |  |  |  | | | code | | | | | (1…3 chars) | YES | Reason codes for activation | A37 - Balancing  Z01 – Countertrade  Z02 – Countertrade  Z03 – Countertrade  Z04 – Countertrade  Z05 – Countertrade  A46 - System services |

**Dependencies governing Activation order response document**

Activation order response document should be provided by BSP after receiving each Activation order or its update. In activation order response document the activation order data is used for reference. The quantity actually activated should be provided.

**AOR Document structure diagram** – see the diagram provided for activation order.

**Document element description**

The value of **grey** coloured tags should be the same as in the Activation order provided by TSO.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Tag** | | | | | | **Value** | **Mandatory[[4]](#footnote-5)** | **Description** | **Conditions** |
| **Header** | | | | | |  |  |  |  |
| mRID | | | | | | (1…35 chars) | YE S | Unique identification of the document for which the time series data is being supplied. | All additions, modifications, or suppressions for the time series and activation period must use the same identification. |
| revisionNumber | | | | | | (1…3 chars) | YE S | Document version | Starts at 1 and increases sequentially. |
| type | | | | | | A41 | YE S | Type of the document | A41 - Activation order response |
| process.processType | | | | | | A30 | NO | The process type identifies the process to which the information flow is directed. | A30 –Tertiary reserve process |
| sender\_MarketParticipant.mRID | | | | | | (1…16 chars) | YE S | Identification of the party who is receiving the document | EIC of party who is sending the document |
| sender\_MarketParticipant.marketRole.type | | | | | | A27 | YE S | Identification of the receiver role | A27 – resource provider |
| receiver\_MarketParticipant.mRID | | | | | | 10X1001A1001B54W | YE S | Identification of the party that is the owner of the document | TSO EIC code.  10X1001A1001B54W –AST |
| receiver\_MarketParticipant.marketRole.type | | | | | | A04 | YE S | Identification of the role that is played by the sender. | A04 – System operator |
| creationDateTime | | | | | | UTC DateTime | YE S | The date and time that the document was prepared for transmission by the application of the sender. | The date and time must be expressed in UTC as YYYY-MM-DDTHH:MM:SSZ. |
| activation\_Time\_Period.timeInterval | | | | | |  |  |  |  |
| start | | | | UTC DateTime interval | YE S | This information provides the start date and time of the activation period | The start date and time must be expressed in UTC time zone and as YYYY-MM-DDTHH:MMZ |
| end | | | | UTC DateTime interval | YE S | This information provides the end date and time of the activation period | The end date and time must be expressed in UTC time zone and as YYYY-MM-DDTHH:MMZ |
| domain.mRID | | | | | | 10Y1001A1001A94A | YE  S | EIC of area | Synchronous area of Baltic states- 10Y1001A1001A94A |
| order\_MarketDocument.mRID | | | | | | (1..35 chars) | NO | The identification of the Activation Order that is being acknowledged by Activation response | Is mandatory for A41 = Activation Response.  DocumentIdentification of Activation document from TSO |
| order\_MarketDocument.revisionNumber | | | | | | (1…3 chars) | NO | The version of the Activation Order that is being acknowledged by Activation response | Is mandatory for A41 = Activation Response.  DocumentVersion of Activation document from TSO |
|  | **TimeSeries** | | | |  |  |  |  |
|  | mRID | | | | (1..35 chars) | YE S | Unique identification of the bid being activated | mRID of Bid\_TimeSeries of the Reserve Bid Document being activated. |
|  | resourceProvider\_MarketParticipant.mRID | | | | (1…16 chars) | YE S | A unique identification of the Resource Provider responsible for reserve activation | BSP EIC code |
|  | businessType | | | | Z54 | YE S | The nature of the time series for which the product is handled. | Z54 – Volume for mFRR standard product  Z59 - Volume ER mFRR specific product NERC (100 MW); |
|  | acquiring\_Domain.mRID | | | | (1…16 chars) | YE S | The area where the reserve is contracted for use (destined) | EIC code.  For normal activation:  10Y1001A1001A94A -Synchronous area of Baltic states  For special activation:  10YLV-1001A00074 -Latvia  10Y1001A1001A39I -Estonia  10YLT-1001A0008Q – Lithuania  10YFI-1--------U – Finland  10YSE-1--------K – Sweden  10YPL-AREA-----S –Poland  10Y1001A1001A49F -Russian area  10Y1001A1001A51S –Belarus area |
|  | connecting\_Domain.mRID | | | | 10YLV-1001A00074 | YE S | The area where the energy is coming from | EIC code.  10YLV-1001A00074 –Latvia |
|  | measurement\_Unit.name | | | | MAW | YE S | The unit of measurement used for the quantities expressed within the time series. | Always expressed in megawatts -MAW |
|  | flowDirection.direction | | | | A01  A02 | YE S | This identifies the direction of the energy flow. | A01 = UP  A02 = DOWN |
|  | marketObjectStatus.status | | | | A07  A09 | YE S | The status of the specific activation request. | Activation Response:  A07 = Activated – the quantities in the time series have been activated (accepted)  A09 = Cancelled – the activation proposal quantities in the time series are rejected. |
|  | registeredResource.mRID | | | | (1…18 chars) | NO | Identification of the resource that is used to supply energy capabilities to the System Operator. | EIC code or Reserve Unit |
|  |  | **Period** | | |  |  |  |  |
|  |  | timeInterval | | |  |  |  |  |
|  |  | | start | | UTC DateTime interval | YE S | This information provides the start date and time of the activation period | The start date and time must be expressed in UTC time zone and as YYYY-MM-DDTHH:MMZ |
|  |  | | end | | UTC DateTime interval | YE S | This information provides the end date and time of the activation period | The end date and time must be expressed in UTC time zone and as YYYY-MM-DDTHH:MMZ |
|  |  | Resolution | | | PTnM | YE S | The resolution defining the number of periods that the time interval is divided. | According to form: PnYnMnDTnHnMnS.  Where nM expresses the number of minutes. |
|  |  |  | | **Point** |  |  |  |  |
|  |  |  | | position | (1…6 chars) | YE S | This information provides the relative position of a period within an activation interval | The relative position must be expressed as a numeric integer value beginning with 1.  All leading zeros must be suppressed. |
|  |  |  | | quantity | (1…17 numeric chars) | YE S | This information defines the quantity that is actually activated for the interval in question and that is expressed in the Measurement Unit Quantity. | Quantity activated, 1 MW precision. |
|  | **Reason** | | | |  |  |  |  |
| |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | |  | Time series |  |  |  |  | | code | | | | (1…3 chars) | YES | Reason codes for activation | A37 - Balancing  Z01 – Countertrade  Z02 – Countertrade  Z03 – Countertrade  Z04 – Countertrade  Z05 – Countertrade  A46 - System services |

### Acknowledgement

**Dependencies governing Acknowledgement document**

Acknowledgement is provided by any party after receiving document, indicating the acceptance or rejection using the standard codes from Reason Code Type of ENTSO-E code list and other specific codes provided in this chapter.

The document can be only fully accepted or rejected, meaning that partly successfully validated documents (for example – with error in one of many time series) will be rejected.

**Acknowledgement Document structure diagram**

A screenshot of a computer screen

Description automatically generated

**Document element description**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Tag** | | | | **Value** | **Mandatory[[5]](#footnote-6)** | **Description** | **Conditions** |
| **Header** | | | |  |  |  |  |
| mRID | | | | (1..35 chars) | Y  E  S | An acknowledgement document is sent in reply to the receipt of a document. | This identification is assigned by the party who is acknowledging the application reception of a document |
| createdDateTime | | | | UTC DateTime | Y  E  S | Date and time of transmission of the acknowledgement. | The date and time that the document was prepared for transmission by the sender.  The date and time must be expressed in UTC as YYYY-MM-DDTHH:MM:SSZ |
| sender\_MarketParticipant.mRID | | | | (1…16 chars) | Y  E  S | Identification of the party that is the owner of the document | The identification of the party that is the originator of the acknowledgement. This value should be the same as that found in the receiver identification of the document being acknowledged.  10X1001A1001B54W –AST  EIC of the BSP |
| sender\_MarketParticipant.marketRole.type | | | | A04  A27 | Y  E  S | Identification of the role that is played by the sender. | A04 – TSO  A27 – BSP  Identification of the role that is played by the sender |
| receiver\_MarketParticipant.mRID | | | | (1…16 chars) | Y  E  S | Identification of the party who is receiving the document | This value should be the same as that found in the sender identification of the document being acknowledged  10X1001A1001B54W –AST  EIC of the BSP |
| receiver\_MarketParticipant.marketRole.type | | | | A04  A27 | N  O | Identification of the receiver role | A04 – TSO  A27 – BSP  Identification of the role that is played by the receiver |
| received\_MarketDocument.mRID | | | | (1…35 chars) | N  O | Unique identification of the document that has been received. | This information identifies the document that has been received by the receiving party.  The identification is extracted from the received document |
| received\_MarketDocument.revisionNumber | | | | (1…3 chars) | N  O | The version of the document that has been received. | The document version must be provided for all documents being acknowledged that have a document version attribute |
| received\_MarketDocument.type | | | | (1…3 chars) | N  O | The document type is used to identify the type of document being acknowledged. | The document type is mandatory in contexts where there is potential ambiguity about the document being acknowledged |
| received\_MarketDocument.process.processType | | | | (1…3 chars) | N  O | The identification of the nature of process that the document addresses. | The information is extracted from the received document. |
| received\_MarketDocument.createdDateTime | | | | (1…3 chars) | N  O | The date and time of the creation of the document. | The information is extracted from the received document. |
|  | **Rejected\_TimeSeries** | | |  | N  O |  | In case the time series level error. |
|  | mRID | | | (1..35 chars) | Y  E  S | The time series in the received document that has been rejected during the initial validation process. | Time series included in the received document. |
|  | | **Reason** | |  | Y  E  S |  |  |
|  | | Code | | (1…3 chars) | Y  E  S | A code providing the acknowledgement status at Time Series Level. | Reason codes are described in the table below. |
|  | | Text | | (1…150 chars) | N  O | Textual description of a rejection. | Reason Title from table below should be used as ReasonText. |
|  | | **InError\_Period** | |  | N  O |  | In case of the time period level error. |
|  | | start | | UTC DateTime | YE  S | The start date and time of the time period in error.  This information is used to identify the time interval that has been identified as being in error. | The start and end date and time must be expressed in UTC time zone and as YYYY-MM-DDTHH:MMZ. |
|  | | end | | UTC DateTime | Y  E  S | The end date and time of the time period in error.  This information is used to identify the time interval that has been identified as being in error. | The start and end date and time must be expressed in UTC time zone and as YYYY-MM-DDTHH:MMZ. |
|  | | | **Reason** |  | Y  E  S |  |  |
|  | | | Code | (1…3 chars) | Y  E  S | A code providing the acknowledgement status at Time Period Level. | Reason codes are described in the table below. |
|  | | | Text | (1…150 chars) | N  O | Textual description of a rejection. | Reason Title from table below should be used as ReasonText. |
| **Reason** | | | |  | Y  E  S |  |  |
| Code | | | | (1…3 chars) | Y  E  S | A code providing the acknowledgement status of received document. | Reason codes are described in the table below. In case of a received document without error, only one Reason element is necessary to acknowledge it. At least one reason element must appear associated with the header part of the document. |
| Text | | | | (1…150 chars) | N  O | Textual description of a rejection. | Reason Title from table below should be used as ReasonText. |

# Examples

## Biding example

This section provides detailed example about bid submission and the options of editing the bid or withdrawing it from tender.

The BSPs can provide several bids in one document, that would be realized as several Bid time series in one Bid document covering period of all Bid time series or as separate bids in separate documents.

To edit the submitted bids the higher version of the same document can be used, but in case the time period does not match the original document or there is a need for example to update only one of Bid Time Series, add new Bid Time series, then new document can be used.

The initial state of the example:

* BSP submits Bid document containing three separate bids – represented as 3 Bid Time series.

A screenshot of a computer

Description automatically generated

* In the BMS the local bid list is created, containing all currently actual bids:

A screenshot of a computer

Description automatically generated

* A screen shot of a computer

  Description automatically generatedThe BSP submits new document, providing only one of the time series mentioned before and a new one:

In TS\_BID24 additional 3 positions are provided, but the positions for last two hours are included in document period but not in the time series periods, meaning that these time series positions should be removed.

TS\_BID26 previously was not included in document, meaning that this is a new bid added to the existing ones.

The changes to the bid time series should be done considering the GCT. If the GCT for the first (or more) position in the original time series has already passed, then the Time Series should not include this period at all. Otherwise the whole document will be rejected by BMS.

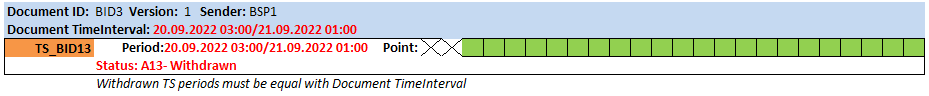
* In the result the local bid list is updated. Creating the following list:

A screenshot of a computer program

Description automatically generated

Where TS\_BID13 and TS\_BID25 have remained unchanged, TS\_BID26 have been added and in TS\_BID24 the newly added positions are added, but last two -removed.

* The BSP deletes one of the bids completely by submitting the Bid time series, containing the original data, but applying the status – A13 – withdrawn.



* In the result the local bid list in system is changed accordingly:

A screenshot of a computer

Description automatically generated

## Bid link example

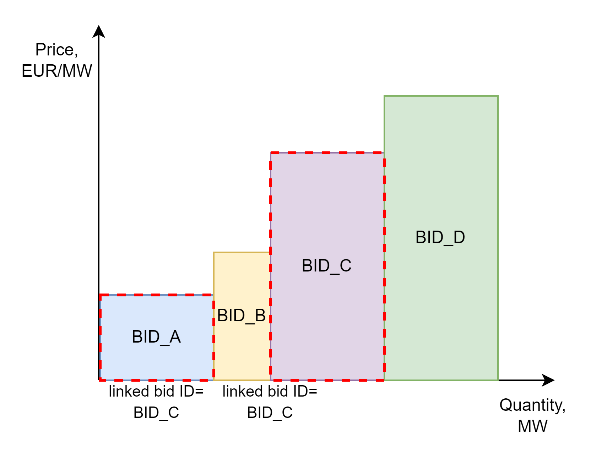
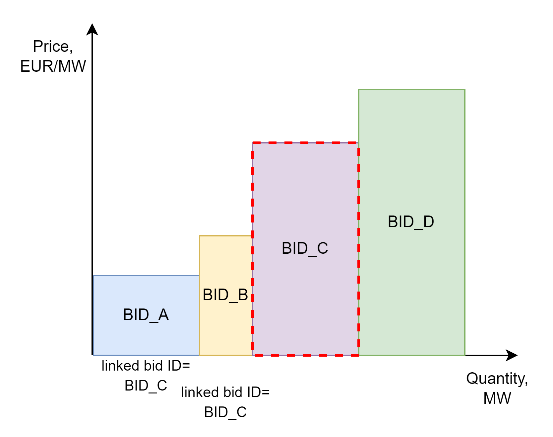
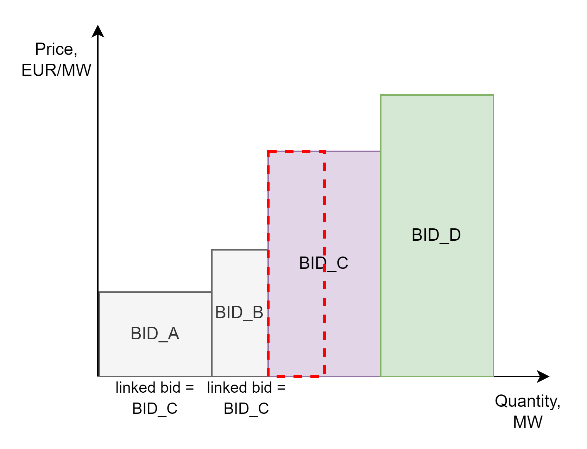
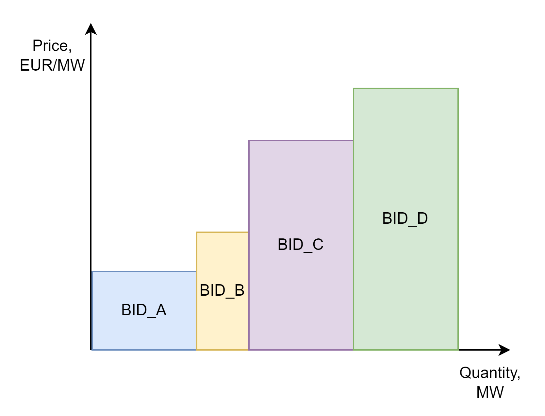
Bids can be linked 'to another bid creating parent-child bids, meaning – that the child bid that is being referred to the parent bid can not be activated before the parent bid has been activated.

It is useful for technical restriction and/or star-up cost modelling. If the linking is applied the child bid will be activated only in case the parent bid has been activated in full capacity, until that the child bid is considered unavailable.

In the example represented in picture above (1) shows all the bids submitted, BID\_A and BID\_B is linked to bid BID\_C. While the BID\_C is not fully activated (2), the BID\_A and BID\_B is skipped even though these are least expensive bids. After the BID\_C is activated fully (3), the BID\_A can be activated (4) and after that BID\_B if needed.

The bid that is linked could also be more expensive or with the same price. The direction of bids needs to be the same for all linked bids.

There could also be linked bids to the bid that is already linked, using the example it would be that BID\_B is linked to BID\_C, and BID\_A is linked to BID\_B. Then the activation sequence would be BID\_C, BID\_B and BID\_A.



**1)**

**2)**

**3)**

**4)**

## Activation example

In Activation document provided by TSO to BSP the bid activation period is indicated. The activation order can be updated according to the time periods specified in market rules.

In case the activation order is updated the higher version of the said order is sent to BSP with changed time series period. The BSP is obliged to provide activation order response for every activation order received.

A screenshot of a data report

Description automatically generated

In case the activation order is sent prior to the MTU and based on system operation processes this activation is not necessary anymore or was provided by mistake it is possible to cancel the activation prior the activation period. In this case the activation order with higher version number will be sent, but the time series period start and end time will be the same value. No activation should be done in this case.

A screenshot of a computer screen

Description automatically generated

## Bid document example

<?xml version='1.0' encoding='UTF-8' standalone='yes'?>

<**ReserveBid\_MarketDocument** xmlns='urn:iec62325.351:tc57wg16:451-7:reservebiddocument:7:3'>

<**mRID**>BID-doc-ID</**mRID**>

<**revisionNumber**>1</**revisionNumber**>

<**type**>A37</**type**>

<**process.processType**>A47</**process.processType**>

<**sender\_MarketParticipant.mRID** codingScheme='A01'>BSP-EIC</**sender\_MarketParticipant.mRID**>

<**sender\_MarketParticipant.marketRole.type**>A27</**sender\_MarketParticipant.marketRole.type**>

<**receiver\_MarketParticipant.mRID** codingScheme='A01'>10X1001A1001B54W</**receiver\_MarketParticipant.mRID**>

<**receiver\_MarketParticipant.marketRole.type**>A04</**receiver\_MarketParticipant.marketRole.type**>

<**createdDateTime**>2022-08-30T10:44:00Z</**createdDateTime**>

<**reserveBid\_Period.timeInterval**>

<**start**>2022-12-06T10:00Z</**start**>

<**end**>2022-12-06T12:00Z</**end**>

</**reserveBid\_Period.timeInterval**>

<**domain.mRID** codingScheme='A01'>10YLV-1001A00074</**domain.mRID**>

<**subject\_MarketParticipant.mRID** codingScheme='A01'>BSP-EIC</**subject\_MarketParticipant.mRID**>

<**subject\_MarketParticipant.marketRole.type**>A27</**subject\_MarketParticipant.marketRole.type**>

<**Bid\_TimeSeries**>

<**mRID**>TS\_BID\_ID</**mRID**>

<**auction.mRID**>BalticCoBA</**auction.mRID**>

<**businessType**>B74</**businessType**>

<**acquiring\_Domain.mRID** codingScheme='A01'>10YLV-1001A00074</**acquiring\_Domain.mRID**>

<**connecting\_Domain.mRID** codingScheme='A01'>10YLV-1001A00074</**connecting\_Domain.mRID**>

<**provider\_MarketParticipant.mRID** codingScheme='A01'>BSP-EIC</**provider\_MarketParticipant.mRID**>

<**quantity\_Measurement\_Unit.name**>MAW</**quantity\_Measurement\_Unit.name**>

<**currency\_Unit.name**>EUR</**currency\_Unit.name**>

<**divisible**>A01</**divisible**>

<**status**>

<**value**>A06</**value**>

</**status**>

<**registeredResource.mRID** codingScheme='A01'>ReserveUnit-EIC</**registeredResource.mRID**>

<**flowDirection.direction**>A02</**flowDirection.direction**>

<**marketAgreement.type**>A01</**marketAgreement.type**>

<**standard\_MarketProduct.marketProductType**>A07</**standard\_MarketProduct.marketProductType**>

<**Period**>

<**timeInterval**>

<**start**>2022-12-06T10:00Z</**start**>

<**end**>2022-12-06T12:00Z</**end**>

</**timeInterval**>

<**resolution**>PT60M</**resolution**>

**<Point>**

<**position**>1</**position**>

<**quantity.quantity**>10.0</**quantity.quantity**>

<**minimum\_Quantity.quantity**>1.0</**minimum\_Quantity.quantity**>

<**energy\_Price.amount**>0.00</**energy\_Price.amount**>

</**Point**>

<**Point**>

<**position**>2</**position**>

<**quantity.quantity**>10.00</**quantity.quantity**>

<**minimum\_Quantity.quantity**>1.0</**minimum\_Quantity.quantity**>

<**energy\_Price.amount**>00.00</**energy\_Price.amount**>

</**Point**>

</**Period**>

</**Bid\_TimeSeries**>

</**ReserveBid\_MarketDocument**>

## Activation order and activation order response document example

Activation order:

<**Activation\_MarketDocument** xmlns="urn:iec62325.351:tc57wg16:451-7:activationdocument:6:3">

<**mRID**>AST\_AO\_20221220\_11431</**mRID**>

<**revisionNumber**>1</**revisionNumber**>

<**type**>A40</type>

<**process.processType**>A30</**process**.**processType**>

<**sender\_MarketParticipant.mRID** codingScheme="A01">10X1001A1001B54W</**sender**\_**MarketParticipant**.**mRID**>

<**sender\_MarketParticipant.marketRole.type**>A04</**sender**\_**MarketParticipant**.**marketRole**.**type**>

<**receiver\_MarketParticipant.mRID** codingScheme="A01">BSP-EIC</**receiver\_MarketParticipant.mRID**>

<**receiver\_MarketParticipant.marketRole.type**>A27</**receiver\_MarketParticipant.marketRole.type**>

<**createdDateTime**>2022-12-20T12:44:04Z</**createdDateTime**>

<**activation\_Time\_Period.timeInterval**>

<start>2022-12-20T13:00Z</start>

<end>2022-12-20T14:00Z</end>

</**activation\_Time\_Period.timeInterval**>

<**domain.mRID** codingScheme="A01">10Y1001A1001A94A</**domain.mRID**>

<**TimeSeries**>

<**mRID**>TS2</**mRID**>

<**resourceProvider\_MarketParticipant.mRID** codingScheme="A01">BSP-EIC</**resourceProvider\_MarketParticipant.mRID**>

<**businessType**>Z54</**businessType**>

<**acquiring\_Domain.mRID** codingScheme="A01">10YLV-1001A00074</**acquiring\_Domain.mRID**>

<**connecting\_Domain.mRID** codingScheme="A01">10YLV-1001A00074</**connecting\_Domain.mRID**>

<**measurement\_Unit.name**>MAW</**measurement\_Unit.name**>

<**flowDirection.direction**>A01</**flowDirection.direction**>

<**marketObjectStatus.status**>A08</**marketObjectStatus.status**>

<**registeredResource.mRID** codingScheme="A01">ReserveUnit-EIC</**registeredResource**.**mRID**>

<**Period**>

<**timeInterval**>

<**start**>2022-12-20T13:00Z</**start**>

<**end**>2022-12-20T14:00Z</**end**>

</**timeInterval**>

<**resolution**>PT60M</**resolution**>

<**Point**>

<**position**>1</**position**>

<**quantity**>10</**quantity**>

</**Point**>

</**Period**>

<**Reason**>

<**code**>A37</**code**>

</**Reason**>

</**TimeSeries**>

</**Activation**\_**MarketDocument**>

Activation Order Response:

<**Activation\_MarketDocument** xmlns="urn:iec62325.351:tc57wg16:451-7:activationdocument:6:3">

<**mRID**>AOR-Document-ID</**mRID**>

<**revisionNumber**>1</**revisionNumber**>

<**type**>A41</type>

<**process.processType**>A30</**process**.**processType**>

<**sender\_MarketParticipant.mRID** codingScheme="A01">BSP-EIC</**sender**\_**MarketParticipant**.**mRID**>

<**sender\_MarketParticipant.marketRole.type**>A27</**sender**\_**MarketParticipant**.**marketRole**.**type**>

<**receiver\_MarketParticipant.mRID** codingScheme="A01">10X1001A1001B54W </**receiver\_MarketParticipant.mRID**>

<**receiver\_MarketParticipant.marketRole.type**>A04</**receiver\_MarketParticipant.marketRole.type**>

<**createdDateTime**>2022-12-20T12:44:34Z</**createdDateTime**>

<**activation\_Time\_Period.timeInterval**>

<start>2022-12-20T13:00Z</start>

<end>2022-12-20T14:00Z</end>

</**activation\_Time\_Period.timeInterval**>

<**domain.mRID** codingScheme="A01">10Y1001A1001A94A</**domain.mRID**>

<**order\_MarketDocument.mRID**> AST\_AO\_20221220\_11431</ **order\_MarketDocument.mRID**>

<**order\_MarketDocument.revisionNumber**>1</ **order\_MarketDocument.revisionNumber**>

<**TimeSeries**>

<**mRID**>TS2</**mRID**>

<**resourceProvider\_MarketParticipant.mRID** codingScheme="A01">BSP-EIC</**resourceProvider\_MarketParticipant.mRID**>

<**businessType**>Z54</**businessType**>

<**acquiring\_Domain.mRID** codingScheme="A01">10YLV-1001A00074</**acquiring\_Domain.mRID**>

<**connecting\_Domain.mRID** codingScheme="A01">10YLV-1001A00074</**connecting\_Domain.mRID**>

<**measurement\_Unit.name**>MAW</**measurement\_Unit.name**>

<**flowDirection.direction**>A01</**flowDirection.direction**>

<**marketObjectStatus.status**>A08</**marketObjectStatus.status**>

<**registeredResource.mRID** codingScheme="A01">ReserveUnit-EIC</**registeredResource**.**mRID**>

<**Period**>

<**timeInterval**>

<**start**>2022-12-20T13:00Z</**start**>

<**end**>2022-12-20T14:00Z</**end**>

</**timeInterval**>

<**resolution**>PT60M</**resolution**>

<**Point**>

<**position**>1</**position**>

<**quantity**>10</**quantity**>

</**Point**>

</**Period**>

<**Reason**>

<**code**>A37</**code**>

</**Reason**>

</**TimeSeries**>

</**Activation**\_**MarketDocument**>

## Acknowledgement document example

<**Acknowledgement\_MarketDocument** xmlns='urn:iec62325.351:tc57wg16:451-1:acknowledgementdocument:8:1'>

<**mRID**>ACKdocument-ID</**mRID**>

<**createdDateTime**>2022-11-02T10:28:00Z</**createdDateTime**>

<**sender\_MarketParticipant.mRID** codingScheme='A01'>BSP-EIC</**sender\_MarketParticipant.mRID>**

<**sender\_MarketParticipant.marketRole.type**>A27</**sender\_MarketParticipant.marketRole.type**>

<**receiver\_MarketParticipant.mRID** codingScheme='A01'>10X1001A1001B54W</**receiver\_MarketParticipant.mRID**>

<**receiver\_MarketParticipant.marketRole.type**>A04</**receiver\_MarketParticipant.marketRole.type**>

<**received\_MarketDocument.mRID**>AST\_AO\_20221102\_8497</**received\_MarketDocument.mRID**>

<**received\_MarketDocument.revisionNumber**>1</**received\_MarketDocument.revisionNumber**>

<**received\_MarketDocument.type**>A40</**received\_MarketDocument.type**>

<**received\_MarketDocument.process.processType**>A30</**received\_MarketDocument.process.processType**>

<**received\_MarketDocument.createdDateTime**>2022-11-02T10:27:14Z</**received\_MarketDocument.createdDateTime**>

<**Reason**>

<**code**>A01</**code**>

<**text**>Message fully accepted</**text**>

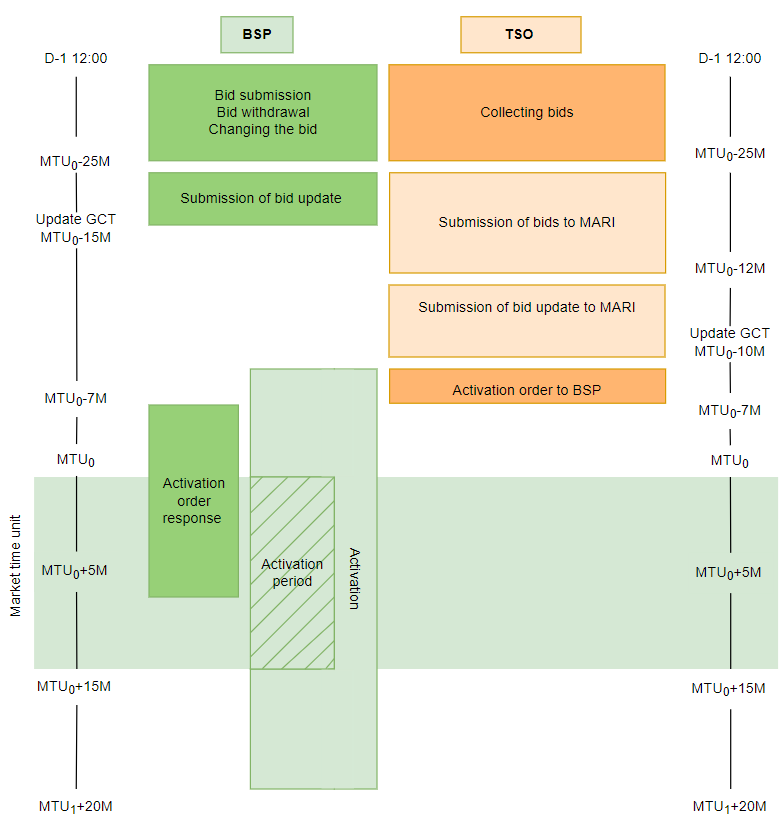
</**Reason**>

</**Acknowledgement\_MarketDocument**>

# mFRR business process for standard products (process for MARI)

## General overview

### Process diagram for schedule activation (SA)



### Process diagram for direct activation (DA)

A chart of different colored squares

Description automatically generated with medium confidence

### Process diagrams colour description

A screenshot of a computer screen

Description automatically generated

### Process diagrams description

Process diagrams depict the general overview of subprocesses regarding balancing service provision with a focus on data exchange between parties. Process diagrams separately show both activation types which are schedule activation (SA) and direct activation (DA). Direct activation can be initiated at any point in time after schedule activation and it shall last until the end of the next MTU.

During the period from D-1 12:00 until GCT (MTU0-25) the BSP shall submit balancing bids to TSO. Until the GCT they can be modified, withdrawn or new bids can be added. After GCT all submitted bids become firm and no further bid updates are allowed. The TSO provides bids to MARI until (MTU0-12) and bid updates until (MTU0-10) for SA and until (MTU0+5) for DA. In case of technical issues BSP shall inform TSO without undue delay by sending bid update with changes to bid availability or quantity reduction and a reason for such changes but not later than 7 minutes before possible activation time BSP submits a reason for changes to bid availability or quantity reduction in bid update document with business types (e.g., thermal limit, frequency limit, voltage limit, current limit, short-circuit current limits, dynamic stability limit, conditional bid) and with the reason code.

Based on the market results and system needs the activation order is issued and sent to the BSP, after which the BSP activates the reserve in time period specified in the said activation order. Additionally, the BSP is obliged to provide activation order response to notify the TSO about the amount of the capacity activated.

In not more than 2 working days after the activation the TSO provides to BSP the report about the amount of energy delivered in the activation and the price of it. The BSP accepts the report, or in case of not agreeing on the received report - provides the grounds of changes that need to be done in the said report.

Based on these reports agreed on during the settlement period, the act on balancing energy supplied during settlement period will be provided and the settlement will take place. The act provision and settlement processes are indicated only as context and are not a subject of this implementation guide.

## Sequence diagram

A diagram of a system

Description automatically generated

## Business rules

### General rules

For each file-based 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.

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

For Reserve Bid Market Documents, data providers may submit higher versions containing updated bids only as detailed in chapter 7.3.2.(and 11.1). For all other documents, higher versions must contain the same number of time series and cover the same time interval.

The BMS will as far as technically feasible validate that submitted data complies with the business rules and permitted combinations of attributes as articulated by this implementation guide. Any data submission that fails such validation will be rejected by the system and the system will provide applicable error code for specific error in the document. BSP shall not submit a higher version of a document before it has received acknowledgement of previous version. This rule must be implemented locally. A data submission that violates this rule may result in data not processed properly by the BMS; bids may be ignored, for example.

The timing restrictions provided in business rules are according to EET, the data included in XML documents should be represented in UTC time.

In case of unavailability of Web Service the BSP can use GUI for manual upload of XML documents.

### Bid submission

**Balancing bid data exchange schema**

A diagram of a system

Description automatically generated

**Dependencies governing Balancing Bid document**

All information about the bid is included in the bid document that is provided by BSP to TSO. Submission of bids for next EET day can be done no earlier than D-1 12:00 EET. The maximum period of time series is 24h. The bids can be provided not later than 25 minutes before the corresponding MTU.

BSP is responsible to provide unique bid time series identification and document identification. The times series identification of already submitted bid is used to refer to the bid in next documents (possibly with different document identification) to make changes in the bid or withdraw it. Note that bid update until bid GCT may be submitted as a document higher version and as the same document version with changes in the document. In case document is submitted with new bid time series identifier for the same MTU it is added to MOL as a new bid. In case document is submitted with the same bid time series identifier that was submitted before for the same MTU, previously submitted bid is updated.

Before including a bid to the MOL the BMS will perform validation of the bid, checking if submitted balancing bid document information is respecting all limitations that should be followed and are in line with the Rules for balancing service provision.

The document time period is used to provide information about the period under consideration. When providing consecutive versions of the bid, if the time period of bid included in the document is shorter than document time period, the bid time period that is not included in bid time series period but is covered by document time period is going to be deleted, it only applies if in previous versions this period was covered by the time series. For more detailed explanation please see chapter 11.1.

Only bids to be updated or newly added bids should be included in document. The bids that are not included but were sent in previous document/-s remain unchanged.

To completely withdraw the bid BSP send the appropriate bid document including time series period which is to be withdrawn and bid status should be set to withdrawn.

**Document structure diagram**

A diagram of a company

Description automatically generated

**Document element description**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Tag | | | | | | Value | Mandatory[[6]](#footnote-7) | Description | Conditions |
| Header | | | | | |  |  |  |  |
| mRID | | | | | | (1..60 chars) | YES | Unique identification of the Bid Document |  |
| revisionNumber | | | | | | (1….3 chars) | YES | Document version | Initial transmission shall equal "1". Every next version should be higher than previous. |
| type | | | | | | A37 | YES | Type of the document | A37 - Reserve Bid document |
| process.processType | | | | | | A47 | NO | The process type identifies the process to which the information flow is directed. | A47 - Manual frequency restoration reserves (mFRR) |
| sender\_MarketParticipant.mRID | | | | | | (1…16 chars) | YES | Identification of the party who is sending the document | EIC of party who is sending the document (EIC of the BSP) |
| sender\_MarketParticipant.marketRole.type | | | | | | A27 | YES | Identification of the role that is played by the sender. | A27 – resource provider |
| receiver\_MarketParticipant.mRID | | | | | | 10X1001A1001B54W | YES | Identification of the party who is receiving the document | TSO EIC  10X1001A1001B54W –AST |
| receiver\_MarketParticipant.marketRole.type | | | | | | A04 | YES | Identification of the receiver role | A04 – System operator |
| createdDateTime | | | | | | UTC DateTime | YES | Date and time of document creation | The date and time must be expressed in UTC as YYYY-MM-DDTHH:MM:SSZ. |
| reserveBid\_Period.timeInterval | | | | | |  | YES |  |  |
| start | | | | | UTC DateTime | YES | The beginning date and time of the period covered by the document. | The start date and time must be expressed in UTC time zone and as YYYY-MM-DDTHH:MMZ. |
| end | | | | | UTC DateTime | YES | Ending date and time of the period covered by the document. | The end date and time must be expressed in UTC time zone and as YYYY-MM-DDTHH:MMZ. |
| domain.mRID | | | | | | 10YLV-1001A00074 | YES | EIC of area covered by sender | EIC of Latvia:  10YLV-1001A00074 |
| subject\_MarketParticipant.mRID | | | | | | (1…16 chars) | NO | The identification of a party in the energy market | BSP EIC |
| subject\_MarketParticipant.marketRole.type | | | | | | A27 | NO | The identification of the role played by a market player | A27 – resource provider |
|  | | **Bid\_TimeSeries** | | | |  |  |  |  |
|  | | mRID | | | | (1..60 chars) | YES | Unique identification of the bid assigned by BSP |  |
|  | | auction.mRID | | | | AUCTION\_ mFRR | NO | A unique identification assigned by the Reserve Allocator of the set of specifications that clearly defines the auction to which the tender is addressed.  For general reference purposes only. | Constant value: AUCTION\_mFRR |
|  | | businessType | | | | B74 | YES | The nature of the time series for which the product is handled. | B74 - Offer |
|  | | acquiring\_Domain.mRID | | | | 10Y1001C--00085O  10YLV-1001A0074 | YES | The area where the energy is to be put | EIC of the mFRR cooperation region:  10Y1001C--00085O  EIC of Latvia (for locally procured products): 10YLV-1001A0074 |
|  | | connecting\_Domain.mRID | | | | 10YLV-1001A00074 | YES | The area where the energy is coming from | EIC of Latvia:  10YLV-1001A00074 |
|  | | provider\_MarketParticipant.mRID | | | | (1…16 chars) | NO | A unique identification of the Resource Provider responsible for reserve bid | EIC of the BSP |
|  | | quantity\_Measurement\_Unit.name | | | | MAW | YES | The unit of measurement used for the quantities expressed within the time series. | Always expressed in megawatts – MAW |
|  | | currency\_Unit.name | | | | EUR | NO | The currency in which the monetary amount is expressed. | Constant value: EUR |
|  | | divisible | | | | A01  A02 | YES | The indication of whether or not the activated quantity can be lower than offered. | A01 - Yes (divisible)  A02 - No (not divisible) |
|  | | linkedBidsIdentification | | | | (1…60 chars) | NO | The identification used to associate bid A with bid B that are to be technically linked together between two consecutive MTUs. If the bid is not linked then the attribute is not used. | Example:  Bid B in MTU0 is linked with bid A in MTU-1.  Bid B is not available if bid A is activated for DA. linkedBidsIdentification attribute value is the same between MTUs.  Details provided in the Balancing market rules. |
|  | | multipartBidIdentification | | | | (1…60 chars) | NO | The identification used to associate components that are to be grouped together into one multipart group within one MTU. If bids are grouped together, then these bids are considered as components of multipart group. If components are not grouped, then the attribute is not used | Example:  Bid B is grouped with bid A and these bids are considered as components now. multipartBidIdentification attribute value is the same for all bids in group within one MTU. Details provided in the Balancing market rules. |
|  | | exclusiveBidsIdentification | | | | (1…60 chars) | NO | The identification used to associate components that are to be grouped together into one exclusive group within one MTU. If bids are grouped together, then these bids are considered as components of exclusive group. If components are not grouped, then the attribute is not used | Example:  Bid B is grouped with bid A and these bids are considered as components now. exclusiveBidIdentification atribute value is the same for all bids in group within one MTU. Details provided in the Balancing market rules. |
|  | | status | | | | A06  A13  A65  A66 | NO | The status of the bid. | The following Status codes permitted:  A06 - Available  A13 – Withdrawn  If conditional link is used:  A65- Conditionally available  A66- Conditionally unavailable |
|  | | registeredResource.mRID | | | | (1…60 chars) | NO | Identification of the resource that will be used to supply the energy | EIC of Reserve Unit (ReU).  For example specific power generating module or demand unit or group qualified by TSO. |
|  | | flowDirection.direction | | | | A01  A02 | YES | This identifies the direction of the energy flow. | A01 - UP;  A02 - DOWN. |
|  | | energyPrice\_Measurement\_Unit.name | | | | MWH | NO | The unit of measure | Always expressed in megawatt hours– MWH |
|  | | marketAgreement.type | | | | A01  Z59 | NO | The type of the market agreement | If mFRR, then A01 - Daily  If ER mFRR, then:  Z59 - Volume ER mFRR (100 MW) |
|  | | marketAgreement.mRID | | | | (1…60 chars) | NO | Market agreement identification | If mFRR free bid, then not used;  If ER mFRR then procurement or auction agreement ID for capacity. |
|  | | standard\_MarketProduct.marketProductType | | | | A05  A07 | NO | Used when the bid refers to a standard product | A05 – Standard mFRR product eligible for scheduled activation only  A07 - Standard mFRR product eligible for scheduled and direct activation |
|  | |  | **Period** | | |  |  |  |  |
|  | |  | timeInterval | | |  | YES |  |  |
|  | |  | | start | | UTC DateTime | YES | The beginning date and time of the period. | The start date and time must be expressed in UTC time zone and as YYYY-MM-DDTHH:MMZ. |
|  | |  | | end | | UTC DateTime | YES | Ending date and time of the period. | The end date and time must be expressed in UTC time zone and as YYYY-MM-DDTHH:MMZ. |
|  | |  | resolution | | | PT15M | YES | The resolution defining the number of periods that the time interval is divided. | Time resolution for bid is equal to MTU in compliance with following format: PnYnMnDTnHnMnS. |
|  | |  |  | | **Point** |  |  |  |  |
|  | |  |  | | position | (1…6 chars) | YES | Position within the time interval | Positions should be consecutive |
|  | |  |  | | quantity.quantity | (1…17 numeric chars)  Min = 1MW, resolution 1MW | YES | Quantity offered. | That is expressed in the quantity\_Measurement\_Unit.name  Note that there shouldn't be any decimal positions |
|  | |  |  | | minimum\_Quantity.quantity | (1…17 numeric chars)  Min= 1MW, resolution 1MW | NO | Minimum bid quantity to be activated | Is used in case bid is divisible.  Is not used in case bid is indivisible.  Note that there shouldn't be any decimal positions. |
|  | |  |  | | energy\_Price.amount | (1…17 numeric chars) | NO | The price of the energy | Not more than two decimal positions can be included.  Note that components of a multipart bid must have different prices |
|  | | **Linked\_BidTimeSeries** | | | |  | NO | Is used in case bid is conditionally linked to bids in MTU-1 and/or MTU-2. Details are provided in Balancing market rules | A65 or A66 status must be used when bid is conditionally linked, i.e. having one or several instances of Linked\_BidTimeSeries. Note that A65 or A66 status shall not be used for multipart and exclusive bids |
|  | | mRID | | | | (1…60 chars) | YES | mRID of a simble bid in MTU-1 or MTU-2 (if current is MTU0) | Not more than 3 links with MTU-1 and not more than 3 links with MTU-2 (if current is MTU0) |
|  | |  |  | | status | A55  A56  A59  A60  A57  A58  A67  A68  A69  A70  A71  A72 | NO | Status of a current bid if it is conditionally linked. Note that bid in MTU0 may have only conditional links to a maximum three bids in MTU-1 and/or three bids in MTU-2. | If MTU0 is conditionally available (BidTimeSeries.status= A65) then one of these attributes shall be used:  A55= Not available if linked bid activated;  A56= Not available if linked bid rejected;  A59= Not available if linked bid subject to SA;  A60= Not available if linked bid subject to DA;  A57= Not available for DA if linked bid subject to DA;  A58= Not available for DA if linked bid subject to SA.  If MTU0 is conditionally unavailable (BidTimeSeries.status= A66) then one of these attributes shall be used:  A67= Available if linked bid activated;  A68= Available if linked bid rejected;  A69= Available if linked bid subject to SA;  A70= Available if linked bid subject to DA;  A71= Available for DA if linked bid subject to DA;  A72= Available for DA if linked bid subject to SA |

### Update of bid after GCT

**Bid update data exchange schema**

A diagram of a system

Description automatically generated

**Dependencies governing Balancing Bid Update document**

The same document as for balancing bid document is used for Balancing Bid Update submission. Balancing bid can be updated in case of unexpected technical limitations in any moment after MTU0-25 minutes but not later than MTU0-15 minutes for SA and 7 minutes before activation order creation and/or MTU0+0 minutes for DA.

The balancing bid update should contain only the corresponding market time unit data that is being updated, the appropriate bid time series identification should be used. Only offered quantity (decrease) and availability status bid updates are allowed, all other fields of the document should match the last bid version before the GCT. Note that in the status attribute the following changes are permitted:

* change the value form A65 (conditionally available) or A66 (conditionally unavailable) to A11 (unavailable), while respecting the rule that conditional links must have been provided in Linked\_BidTimeSeries before bid submission GCT (T-25);
* change the value from A06 (available) to A11 (unavailable).

Update should be done for one full MTU. In case the bid time series to be updated have already been activated partly or fully the bid update will be rejected because it is impossible to update the bid that was already activated or is currently executed by AOF of MARI. Note that in case of technical issues BSP should provide a reason for changes of bid availability or quantity reduction in bid update document.

The quantity specified in bid document should correspond to remaining available quantity. The updated bid document should contain the remaining quantity (that can't be higher than original quantity and can't be lower than the minimum quantity specified in minimum\_Quantity.quantity attribute) and the bid status - available. If the whole amount is unavailable then it means the whole bid is unavailable and status attribute value should be set to A11 (unavailable).It should be noted that each bid update document should have a unique mRID. Sending next version is allowed only in case previous one was not successfully validated and document was rejected.

Note that after sending bid update BSP will receive acknowledgement document from TSO which doesn't mean that bid update document is accepted (it only means that document successfully passed the validation). Bid update is accepted only when BSP will receive confirmation document that means bid update data are in force. Otherwise BSP will receive negative confirmation document that means bid update is not accepted and data remains the same as before the submission of bid update document.

**Document structure diagram –** see chapter 7.3.2..

**Document element description**

The value of **grey** coloured tags should be the same as in the original Bid document provided by BSP.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Tag | | | | | | | Value | Mandatory[[7]](#footnote-8) | Description | Conditions |
| Header | | | | | | |  |  |  |  |
| mRID | | | | | | | (1..60 chars) | YES | Unique identification of the Bid Document |  |
| revisionNumber | | | | | | | (1….3 chars) | YES | Document version | Initial transmission shall equal "1". Every next version should be higher than previous. |
| type | | | | | | | Z42 | YES | Type of the document | Z42 - Reserve Bid Update document |
| process.processType | | | | | | | A47 | NO | The process type identifies the process to which the information flow is directed. | A47 - Manual frequency restoration reserves(mFRR) |
| sender\_MarketParticipant.mRID | | | | | | | (1…16 chars) | YES | Identification of the party who is sending the document | EIC of party who is sending the document (EIC of the BSP) |
| sender\_MarketParticipant.marketRole.type | | | | | | | A27 | YES | Identification of the role that is played by the sender. | A27 – resource provider |
| receiver\_MarketParticipant.mRID | | | | | | | 10X1001A1001B54W | YES | Identification of the party who is receiving the document | TSO EIC.  10X1001A1001B54W –AST |
| receiver\_MarketParticipant.marketRole.type | | | | | | | A04 | YES | Identification of the receiver role | A04 – System operator |
| createdDateTime | | | | | | | UTC DateTime | YES | Date and time of document creation | The date and time must be expressed in UTC as YYYY-MM-DDTHH:MM:SSZ. |
| reserveBid\_Period.timeInterval | | | | | | |  | YES |  |  |
| start | | | | | | UTC DateTime | YES | The beginning date and time of the period covered by the document. | The start date and time must be expressed in UTC time zone and as YYYY-MM-DDTHH:MMZ. |
| end | | | | | | UTC DateTime | YES | Ending date and time of the period covered by the document. | The end date and time must be expressed in UTC time zone and as YYYY-MM-DDTHH:MMZ. |
| domain.mRID | | | | | | | 10YLV-1001A00074 | YES | EIC of area covered by sender | EIC of Latvia:  10YLV-1001A00074 |
| subject\_MarketParticipant.mRID | | | | | | | (1…16 chars) | NO | The identification of a party in the energy market | BSP EIC |
| subject\_MarketParticipant.marketRole.type | | | | | | | A27 | NO | The identification of the role played by a market player | A27 – resource provider |
|  | | **Bid\_TimeSeries** | | | | |  |  |  |  |
|  | | mRID | | | | | (1..60 chars) | YES | Unique identification of the bid assigned by BSP |  |
|  | | auction.mRID | | | | | AUCTION\_mFRR | YES | A unique identification assigned by the Reserve Allocator of the set of specifications that clearly defines the auction to which the tender is addressed.  For general reference purposes only. | Constant value: AUCTION\_mFRR |
|  | | businessType | | | | | C40  C41  C42  C43  C44  C45  C46 | YES | The nature of the time series for which the product is handled. | C40- conditional bit  C41- thermal limit  C42- frequency limit  C43- voltage limit  C44- current limit  C45- short-circuit current limits  C46- dynamic stability limit |
|  | | acquiring\_Domain.mRID | | | | | 10Y1001C--00085O  10YLV-1001A00074 | YES | The area where the energy is to be put | EIC of the mFRR cooperation region: 10Y1001C--00085O  EIC of Latvia (for locally procured products):  10YLV-1001A00074 |
|  | | connecting\_Domain.mRID | | | | | 10YLV-1001A00074 | YES | The area where the energy is coming from | EIC of Latvia:  10YLV-1001A00074 |
|  | | provider\_MarketParticipant.mRID | | | | | (1…16 chars) | NO | A unique identification of the Resource Provider responsible for reserve bid | EIC of the BSP |
|  | | quantity\_Measurement\_Unit.name | | | | | MAW | YES | The unit of measurement used for the quantities expressed within the time series. | Always expressed in megawatts – MAW |
|  | | currency\_Unit.name | | | | | EUR | NO | The currency in which the monetary amount is expressed. | Constant value: EUR |
|  | | divisible | | | | | A01  A02 | YES | The indication of whether or not the activated quantity can be lower than offered. | A01 - Yes (divisible)  A02 - No (not divisible) |
|  | | linkedBidsIdentification | | | | | (1…60 chars) | NO | The identification used to associate bid A with bid B that are to be technically linked together between two consecutive MTUs. If the bid is not linked then the attribute is not used. | Example:  Bid B in MTU0 is linked with bid A in MTU-1.  Bid B is not available if bid A is activated for DA. linkedBidsIdentification attribute value is the same between MTUs.  Details provided in the Balancing market rules. |
|  | | multipartBidIdentification | | | | | (1…60 chars) | NO | The identification used to associate components that are to be grouped together into one multipart group within one MTU. If bids are grouped together, then these bids are considered as components of multipart group. If components are not grouped, then the attribute is not used | Example:  Bid B is grouped with bid A and these bids are considered as components now. multipartBidIdentification attribute value is the same for all bids in group within one MTU. Details provided in the Balancing market rules. |
|  | | exclusiveBidsIdentification | | | | | (1…60 chars) | NO | The identification used to associate components that are to be grouped together into one exclusive group within one MTU. If bids are grouped together, then these bids are considered as components of exclusive group. If components are not grouped, then the attribute is not used | Example:  Bid B is grouped with bid A and these bids are considered as components now. exclusiveBidIdentification atribute value is the same for all bids in group within one MTU. Details provided in the Balancing market rules. |
|  | | status | | | | | A06  A11  A65  A66 | NO | The status of the bid. | The following Status codes permitted:  A06 – Available  A11 – Unavailable  A65- Conditionally available  A66- Conditionally unavailable |
|  | | registeredResource.mRID | | | | | (1…60 chars) | NO | Identification of the resource that will be used to supply the energy | EIC of Reserve Unit (ReU).  For example specific power generating module or demand unit or group qualified by TSO. |
|  | | flowDirection.direction | | | | | A01  A02 | YES | This identifies the direction of the energy flow. | A01 - UP;  A02 - DOWN. |
|  | | energyPrice\_Measurement\_Unit.name | | | | | MWH | NO | The unit of measure | Always expressed in megawatt hours– MWH |
|  | | marketAgreement.type | | | | | A01  Z59 | NO | The type of the market agreement | If mFRR, then A01 - Daily  If ER mFRR, then:  Z59 - Volume ER mFRR (100 MW) |
|  | | marketAgreement.mRID | | | | | (1…60 chars) | NO | Market agreement identification | If mFRR free bid, then not used;  If ER mFRR then procurement or auction agreement ID for capacity. |
|  | | standard\_MarketProduct.marketProductType | | | | | A05  A07 | NO | Used when the bid refers to a standard product | A05 – Standard mFRR product eligible for scheduled activation only  A07 - Standard mFRR product eligible for scheduled and direct activation |
|  | |  | **Period** | | | |  |  |  |  |
|  | |  | timeInterval | | | |  | YES |  |  |
|  | |  | | start | | | UTC DateTime | YES | The beginning date and time of the period. | The start and end date and time must be expressed in UTC time zone and as YYYY-MM-DDTHH:MMZ. |
|  | |  | | end | | | UTC DateTime | YES | Ending date and time of the period. | The start and end date and time must be expressed in UTC time zone and as YYYY-MM-DDTHH:MMZ. |
|  | |  | resolution | | | | PT15M | YES | The resolution defining the number of periods that the time interval is divided. | Time resolution according to the TimeInterval but not more than PT60M in compliance with following format: PnYnMnDTnHnMnS |
|  | |  |  | | **Point** | |  |  |  |  |
|  | |  |  | | | position | (1…6 chars) | YES | Position within the time interval | Not more than 1 position allowed in one Bid\_TimeSeries |
|  | |  |  | | | quantity.quantity | (1…17 numeric chars)  Min = 0 MW, resolution 1MW | YES | Quantity offered  If status is A11 (unavailable) then as in initial bid quantity value. If status A06 (available), A65 (conditionally available) or A66 (conditionally unavailable) then value should be lower or equal than initial bid quantity but higher or equal than initial bid minimum\_Quantity.quantity value. | That is expressed in the quantity\_Measure\_Unit.name  Note that there shouldn't be any decimal positions |
|  | |  |  | | | minimum\_Quantity.quantity | (1…17 numeric chars)  Min= 1MW, resolution 1MW | NO | Minimum bid quantity to be activated | Is used in case bid is divisible.  Is not used in case bid is indivisible.  Note that there shouldn't be any decimal positions. |
|  | |  |  | | | energy\_Price.amount | (1…17 numeric chars) | NO | The price of the energy | Not more than two decimal positions can be included. Note that components of a multipart bid must have different prices |
| Reason | | | |  |  |  |  |  |
| Code | B16  B58  B59  B18  B46  B47  B60 | YES | The reason code of changes to bid availability or quantity reduction | When business type= C40 then attribute B16 (tender unavailable in MOL list) shall be used.  When business type= C42 then attribute B58 (insufficiency of reserves) or B59 (unavailability of reserve providing units) shall be used.  When business type= C41, C43, C44, C45 or C46 then attribute B18 (failure), B46 (internal congestion), B47 (operational security constraints) or B60 (unavailability of automatic protection systems) shall be used. |
| Linked\_BidTimeSeries | | | |  |  |  | Is used in case bid is conditionally linked to bids in MTU-1 and/or MTU-2. Details are provided in Balancing market rules | A65 or A66 status must be used when bid is conditionally linked, i.e. having one or several instances of Linked\_BidTimeSeries. Note that A65 or A66 status shall not be used for multipart and exclusive bids |
| mRID | (1…60 chars) | YES | mRID of a simble bid in MTU-1 or MTU-2 (if current is MTU0) | Not more than 3 links with MTU-1 and not more than 3 links with MTU-2 (if current is MTU0) |
| status | A56  A59  A60  A57  A58  A67  A68  A69  A70  A71  A72 | NO | Status of a current bid if it is conditionally linked. Note that bid in MTU0 may have only conditional links to a maximum three bids in MTU-1 and/or three bids in MTU-2. | If MTU0 is conditionally available (BidTimeSeries.status= A65) then one of these attributes shall be used:  A55= Not available if linked bid activated;  A56= Not available if linked bid rejected;  A59= Not available if linked bid subject to SA;  A60= Not available if linked bid subject to DA;  A57= Not available for DA if linked bid subject to DA;  A58= Not available for DA if linked bid subject to SA.  If MTU0 is conditionally unavailable (BidTimeSeries.status= A66) then one of these attributes shall be used:  A67= Available if linked bid activated;  A68= Available if linked bid rejected;  A69= Available if linked bid subject to SA;  A70= Available if linked bid subject to DA;  A71= Available for DA if linked bid subject to DA;  A72= Available for DA if linked bid subject to SA |

**Dependencies governing Confirmation\_MarketDocument**

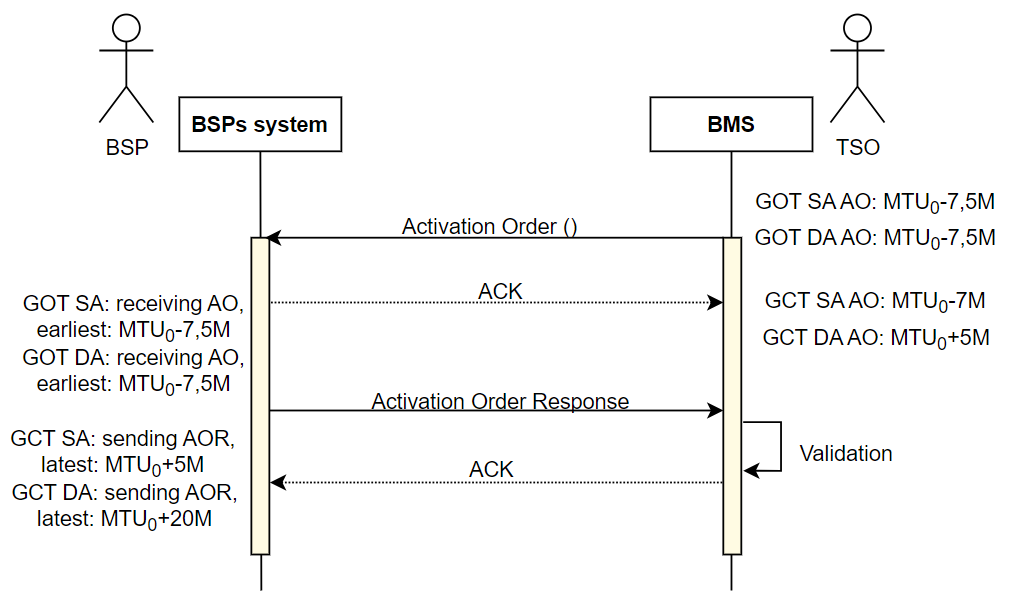
**Document structure diagram –** see chapter 7.3.3.

**Document element description**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Tag | | | | | Value | Mandatory[[8]](#footnote-9) | Description | Conditions |
| Header (Confirmation\_MarketDocument) | | | | |  |  |  |  |
| mRID | | (1..60 chars) | YES | Unique identification of the Confirmation Document |  |
| type | | A18 | YES | Type of the document | A18 – Confirmation report |
| createdDateTime | | UTC DateTime | YES | Date and time of document creation | The date and time must be expressed in UTC as YYYY-MM-DDTHH:MM:SSZ. |
| sender\_MarketParticipant.mRID | | (1…16 chars) | YES | Identification of the party who is sending the document | TSO EIC.  10X1001A1001B54W-AST |
| sender\_MarketParticipant.marketRole.type | | A04 | YES | Identification of the role that is played by the sender. | A04 – System operator |
| receiver\_MarketParticipant.mRID | | (1…16 chars) | YES | Identification of the party who is receiving the document | EIC of party who is receiving the document (EIC of the BSP) |
| receiver\_MarketParticipant.marketRole.type | | A27 | YES | Identification of the receiver role | A27 – resource provider |
| schedule\_Period.timeInterval | | |  | YES | The MTU period | Always 15 minutes length |
| start | UTC DateTime | YES | The beginning date and time of the period covered by the document. | The start date and time must be expressed in UTC time zone and as YYYY-MM-DDTHH:MMZ. |
| end | UTC DateTime | YES | Ending date and time of the period covered by the document. | The end date and time must be expressed in UTC time zone and as YYYY-MM-DDTHH:MMZ. |
| confirmed\_MarketDocument.mRID | | (1…60 chars) | NO | mRID of balancing bid update document |  |
| confirmed\_MarketDocument.revisionNumber | | (1…3 chars) | NO | Version number of updated bid document | Initial transmission shall equal "1". Every next version is higher than previous. |
| domain.mRID | | 10Y1001C--000850 | YES | EIC of the region | EIC of mFRR region: 10Y1001C--000850 |
| process.processType | | A47 | NO | The process type identifies the process to which the information flow is directed | A47- Manual frequency restoration reserves (mFRR) |
| Reason (associated with header) | | | | |  |  |  |  |
| code | | B53 | YES | Only B53 should be populated | B53- MOL merging successful |
| Confirmed\_TimeSeries | | | |  |  |  |  |
| mRID | (1…60 chars) | YES | Identification of the bid time series as indicated by the mRID of the BidTimeSeries in the ReserveBid\_MarketDocument received from the BSP |  |
| version | 1 | YES | Document version | Always "1" |
| businessType | B74 | YES | The nature of the time series for which the product is handled | B74- offer |
| product | 8716867000016 | YES | Always "8716867000016" | 8716867000016- active power |
| objectAggregation | A04 | YES | Always "A04" | A04- Agreement identification |
| Measurement\_Unit.name | MAW | YES | The unit of measurement used for the quantities expressed within the time series | Always expressed in megawatts- MAW |
| Reason (associated with Confirmed\_TimeSeries) | | | |  |  |  |  |
| code | A85  A86  B16 | YES | A85 means bid update is confirmed without adjustments  A86 means bid update is confirmed with adjustment  B16 means bid update is not confirmed because bid is already activated | A85- confirmation without adjustment  A86- confirmation with adjustment  B16- tender unavailable in MOL list |

### Activation order and Activation order response

**Bid activation data exchange schema**



**Dependencies governing Activation order document**

Activation order document is provided by TSO to BSP and there are separate documents with activations for SA and DA. Activation order can be provided not earlier than MTU0-7,5M and not later than MTU0-7M for SA, not earlier than MTU0-7,5M and not later than MTU0+7,5M for DA. Activation order covers not more than two MTUs in case there is SA&DA activation type since DA shall last until the end of the next MTU. The activation should be performed by BSP according to AO document specified attributes values.

BSP after receiving activation order should send back to TSO acknowledgement document and activation order response but not later than MTU0+5M for SA and MTU0+20M for DA.

**AO Document structure diagram**

A diagram of a diagram

Description automatically generated

**Document element description**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Tag | | | | | | | Value | | Mandatory[[9]](#footnote-10) | Description | Conditions | |
| **Header** | | | | | | |  | |  |  |  | |
| mRID | | | | | | | (1…60 chars) | | YE S | Unique identification of the document for which the time series data is being supplied. | All additions, modifications, or suppressions for the time series and activation period must use the same identification. | |
| revisionNumber | | | | | | | (1…3 chars) | | YE S | Document version | Always "1" | |
| type | | | | | | | A40 | | YE S | Type of the document | A40 - Activation order | |
| process.processType | | | | | | | A60  A61 | | NO | The process type identifies the process to which the information flow is directed. | A60- mFRR with scheduled activation;  A61- mFRR with direct activation.  Note that different activation types will be sent in separate documents. | |
| sender\_MarketParticipant.mRID | | | | | | | 10X1001A1001B54W | | YE S | Identification of the party that is the owner of the document | TSO EIC.  10X1001A1001B54W –AST | |
| sender\_MarketParticipant.marketRole.type | | | | | | | A04 | | YE S | Identification of the role that is played by the sender. | A04 – System operator | |
| receiver\_MarketParticipant.mRID | | | | | | | (1…16 chars) | | YE S | Identification of the party who is receiving the document | EIC of party who is receiving the document (EIC of the BSP) | |
| receiver\_MarketParticipant.marketRole.type | | | | | | | A27 | | YE S | Identification of the receiver role | A27 – resource provider | |
| createdDateTime | | | | | | | UTC DateTime | | YE S | The date and time that the document was prepared for transmission by the application of the sender. | The date and time must be expressed in UTC as YYYY-MM-DDTHH:MM:SSZ. | |
| activation\_Time\_Period.timeInterval | | | | | | |  | | YE  S |  |  | |
| start | | | | | UTC DateTime interval | | YE S | This information provides the start date and time of the activation period | The start date and time must be expressed in UTC time zone and as YYYY-MM-DDTHH:MMZ | |
| end | | | | | UTC DateTime interval | | YE S | This information provides the end date and time of the activation period | The end date and time must be expressed in UTC time zone and as YYYY-MM-DDTHH:MMZ | |
| domain.mRID | | | | | | | 10YLV-1001A00074 | | NO | EIC of area covered by sender | EIC of Latvia: 10YLV-1001A00074 | |
|  | | **TimeSeries** | | | | |  |  |  |  |
|  | | mRID | | | | | (1..60 chars) | YE S | Unique identification of the bid being activated | mRID of Bid\_TimeSeries of the Reserve Bid Document being activated. The same that was assigned to the bid in the BSP submitted ReserveBid\_MarketDocument |
|  | | resourceProvider\_MarketParticipant.mRID | | | | | (1…16 chars) | YE  S | A unique identification of the Resource Provider responsible for reserve activation | BSP EIC |
|  | | businessType | | | | | Z54  Z59 | YE S | The nature of the time series for which the product is handled. | Z54 – Volume for mFRR standard product  Z59 - Volume ER mFRR specific product NERC (100 MW); |
|  | | acquiring\_Domain.mRID | | | | | 10Y1001C—00085O  10YLV-1001A00074 | YE S | The area where the energy is to be put | For normal activation  EIC of the mFRR cooperation region:  10Y1001C--00085O  For local normal activation or special activation EIC of Latvia: 10YLV-1001A00074 |
|  | | connecting\_Domain.mRID | | | | | 10YLV-1001A00074 | YE S | The area where the energy is coming from | EIC  10YLV-1001A00074 –Latvia |
|  | | measurement\_Unit.name | | | | | MAW | YE  S | The unit of measurement used for the quantities expressed within the time series. | Always expressed in megawatts -MAW |
|  | | flowDirection.direction | | | | | A01  A02 | YE S | This identifies the direction of the energy flow. | A01 = UP  A02 = DOWN |
|  | | marketObjectStatus.status | | | | | A10 | YE S | The status of the specific activation request. | A10 = ordered |
|  | | registeredResource.mRID | | | | | (1…60 chars) | NO | Identification of the resource that is used to supply energy capabilities to the System Operator. | EIC of Reserve Unit (ReU) |
|  | |  | **Period** | | | |  |  |  |  |
|  | |  | timeInterval | | | |  | YE  S |  |  |
|  | |  | | start | | | UTC DateTime interval | YE S | This information provides the start date and time of the activation period | The start date and time must be expressed in UTC time zone and as YYYY-MM-DDTHH:MMZ |
|  | |  | | end | | | UTC DateTime interval | YE S | This information provides the end date and time of the activation period | The end date and time must be expressed in UTC time zone and as YYYY-MM-DDTHH:MMZ |
|  | |  | resolution | | | | PTnM | YE S | The resolution defining the number of periods that the time interval is divided. | According to form: PnYnMnDTnHnMnS.  Where nM expresses the number of minutes. For SA resolution always 15 minutes. For DA resolution can be from 15 up to 29 minutes |
|  | |  |  | **Point** | | |  |  |  |  |
|  | |  |  | | position | | (1…6 chars) | YE S | This information provides the relative position of a period within an activation interval | The relative position must be expressed as a numeric integer value beginning with 1.  All leading zeros must be suppressed. |
|  | |  |  | | quantity.quantity | | (1…17 numeric chars) | YES | This information defines the quantity that is to be activated for the interval in question and that is expressed in the Measurement Unit Quantity. |  |
|  | | **Reason** | | | | |  |  |  |  |
| |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | |  | Time series |  |  |  |  | | | code | | | | | (1…3 chars) | YES | Reason codes for activation | A37 - Balancing  Z06 – Countertrade  A46 - System services |

**Dependencies governing Activation order response document**

Activation order response document should be provided by BSP after receiving each Activation order. In activation order response document the activation order data is used for reference. The quantity actually activated should be provided.

**AOR Document structure diagram** – see the diagram provided for activation order.

**Document element description**

The value of **grey** coloured tags should be the same as in the Activation order provided by TSO.

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Tag | | | | | | | | Value | Mandatory[[10]](#footnote-11) | Description | Conditions |
| Header | | | | | | | |  |  |  |  |
| mRID | | | | | | | | (1…60 chars) | YE S | Unique identification of the document for which the time series data is being supplied. | All additions, modifications, or suppressions for the time series and activation period must use the same identification. |
| revisionNumber | | | | | | | | (1…3 chars) | YE S | Document version | Starts at 1 and increases sequentially. |
| type | | | | | | | | A41 | YE S | Type of the document | A41 - Activation order response |
| process.processType | | | | | | | | A60  A61 | NO | The process type identifies the process to which the information flow is directed. | A60- mFRR with scheduled activation;  A61- mFRR with direct activation |
| sender\_MarketParticipant.mRID | | | | | | | | (1…16 chars) | YE S | Identification of the party who is receiving the document | EIC of party who is sending the document (EIC of the BSP) |
| sender\_MarketParticipant.marketRole.type | | | | | | | | A27 | YE S | Identification of the receiver role | A27 – resource provider |
| receiver\_MarketParticipant.mRID | | | | | | | | 10X1001A1001B54W | YE S | Identification of the party that is the owner of the document | TSO EIC.  10X1001A1001B54W –AST |
| receiver\_MarketParticipant.marketRole.type | | | | | | | | A04 | YE S | Identification of the role that is played by the sender. | A04 – System operator |
| createdDateTime | | | | | | | | UTC DateTime | YE S | The date and time that the document was prepared for transmission by the application of the sender. | The date and time must be expressed in UTC as YYYY-MM-DDTHH:MM:SSZ. |
| activation\_Time\_Period.timeInterval | | | | | | | |  | YES |  |  |
| start | | | | | | UTC DateTime interval | YE S | This information provides the start date and time of the activation period | The start date and time must be expressed in UTC time zone and as YYYY-MM-DDTHH:MMZ |
| end | | | | | | UTC DateTime interval | YE S | This information provides the end date and time of the activation period | The end date and time must be expressed in UTC time zone and as YYYY-MM-DDTHH:MMZ |
| domain.mRID | | | | | | | | 10YLV-1001A00074 | NO | EIC of area covered by sender | EIC of Latvia: 10YLV-1001A00074 |
| order\_MarketDocument.mRID | | | | | | | | (1..60 chars) | NO | The identification of the Activation Order that is being acknowledged by Activation response | Is mandatory for A41 = Activation Response.  DocumentIdentification of Activation document from TSO |
| order\_MarketDocument.revisionNumber | | | | | | | | (1…3 chars) | NO | The version of the Activation Order that is being acknowledged by Activation response | Is mandatory for A41 = Activation Response.  DocumentVersion of Activation document from TSO |
|  | | | **TimeSeries** | | | |  |  |  |  |
|  | | | mRID | | | | (1..60 chars) | YE S | Unique identification of the bid being activated | mRID of Bid\_TimeSeries of the Reserve Bid Document being activated. The same that was assigned to the bid in the TSO submitted Activation order document |
|  | | | resourceProvider\_MarketParticipant.mRID | | | | (1…16 chars) | YE S | A unique identification of the Resource Provider responsible for reserve activation | BSP EIC |
|  | | | businessType | | | | Z54  Z59 | YE S | The nature of the time series for which the product is handled. | Z54 – Volume for mFRR standard product  Z59 - Volume ER mFRR specific product NERC (100 MW); |
|  | | | acquiring\_Domain.mRID | | | | 10Y1001C--00085O  10YLV-1001A00074 | YE S | The area where the energy is to be put | For normal activation EIC of the mFRR cooperation region:  10Y1001C--00085O  For local normal activation or special activation  EIC of Latvia: 10YLV-1001A00074 |
|  | | | connecting\_Domain.mRID | | | | 10YLV-1001A00074 | YE S | The area where the energy is coming from | EIC.  10YLV-1001A00074 –Latvia |
|  | | | measurement\_Unit.name | | | | MAW | YE S | The unit of measurement used for the quantities expressed within the time series. | Always expressed in megawatts -MAW |
|  | | | flowDirection.direction | | | | A01  A02 | YE S | This identifies the direction of the energy flow. | A01 = UP  A02 = DOWN |
|  | | | marketObjectStatus.status | | | | A07 | YE S | The status of the specific activation request. | Activation Response:  A07 = Activated – the quantities in the time series have been activated (accepted) |
|  | | | registeredResource.mRID | | | | (1…60 chars) | NO | Identification of the resource that is used to supply energy capabilities to the System Operator. | EIC or Reserve Unit (ReU) |
|  |  | | | **Period** | | |  |  |  |  |
|  |  | | | timeInterval | | |  | YES |  |  |
|  |  | | | | start | | UTC DateTime interval | YE S | This information provides the start date and time of the activation period | The start date and time must be expressed in UTC time zone and as YYYY-MM-DDTHH:MMZ |
|  |  | | | | end | | UTC DateTime interval | YE S | This information provides the end date and time of the activation period | The end date and time must be expressed in UTC time zone and as YYYY-MM-DDTHH:MMZ |
|  |  | | | resolution | | | PTnM | YE S | The resolution defining the number of periods that the time interval is divided. | According to form: PnYnMnDTnHnMnS.  Where nM expresses the number of minutes. For SA resolution always 15 minutes. For DA resolution can be from 15 up to 29 minutes |
|  |  | | |  | | Point |  |  |  |  |
|  |  | | |  | | position | (1…6 chars) | YE S | This information provides the relative position of a period within an activation interval | The relative position must be expressed as a numeric integer value beginning with 1.  All leading zeros must be suppressed. |
|  |  | | |  | | quantity.quantity | (1…17 numeric chars) | YE S | This information defines the quantity that is actually activated for the interval in question and that is expressed in the Measurement Unit Quantity. | Quantity activated, 1 MW precision. |
|  | | **Reason** | | | | |  |  |  |  |
|  | | code | | | | | (1…3 chars) | YES | Reason codes for activation | A37 - Balancing  Z06 – Countertrade  A46 - System services |

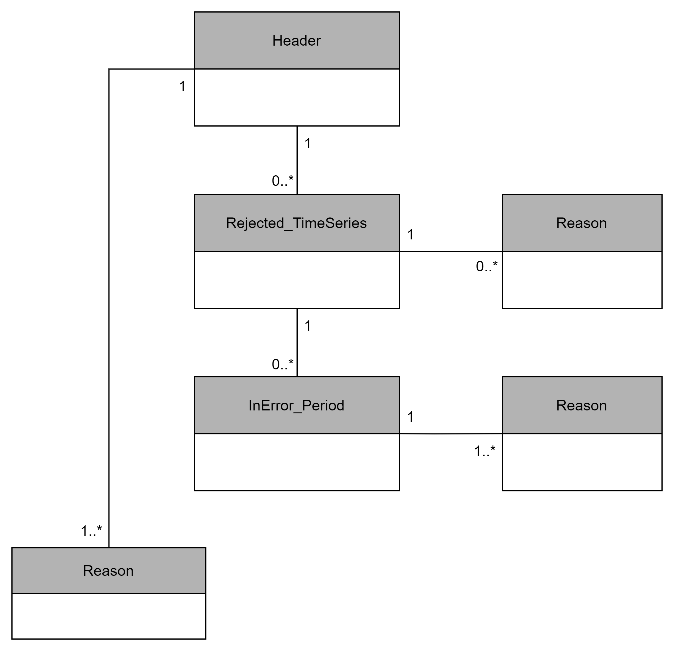
### Acknowledgement

**Dependencies governing Acknowledgement document**

Acknowledgement is provided by any party after receiving document, indicating the acceptance or rejection using the standard codes from Reason Code Type of ENTSO-E code list and other specific codes provided in this chapter.

The document can be only fully accepted or rejected, meaning that partly successfully validated documents (for example – with error in one of many time series) will be rejected.

**Acknowledgement Document structure diagram**



**Document element description**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Tag | | | | Value | Mandatory[[11]](#footnote-12) | Description | Conditions |
| **Header** | | | |  |  |  |  |
| mRID | | | | (1..60 chars) | Y  E  S | An acknowledgement document is sent in reply to the receipt of a document. | This identification is assigned by the party who is acknowledging the application reception of a document |
| createdDateTime | | | | UTC DateTime | Y  E  S | Date and time of transmission of the acknowledgement. | The date and time that the document was prepared for transmission by the sender.  The date and time must be expressed in UTC as YYYY-MM-DDTHH:MM:SSZ |
| sender\_MarketParticipant.mRID | | | | (1…16 chars) | Y  E  S | Identification of the party that is the owner of the document | The identification of the party that is the originator of the acknowledgement. This value should be the same as that found in the receiver identification of the document being acknowledged.  10X1001A1001B54W –AST  EIC of the BSP |
| sender\_MarketParticipant.marketRole.type | | | | A04  A27 | Y  E  S | Identification of the role that is played by the sender. | A04 – TSO  A27 – BSP  Identification of the role that is played by the sender |
| receiver\_MarketParticipant.mRID | | | | (1…16 chars) | Y  E  S | Identification of the party who is receiving the document | This value should be the same as that found in the sender identification of the document being acknowledged  10X1001A1001B54W –AST  EIC of the BSP |
| receiver\_MarketParticipant.marketRole.type | | | | A04  A27 | N  O | Identification of the receiver role | A04 – TSO  A27 – BSP  Identification of the role that is played by the receiver |
| received\_MarketDocument.mRID | | | | (1…60 chars) | N  O | Unique identification of the document that has been received. | This information identifies the document that has been received by the receiving party.  The identification is extracted from the received document |
| received\_MarketDocument.revisionNumber | | | | (1…3 chars) | N  O | The version of the document that has been received. | The document version must be provided for all documents being acknowledged that have a document version attribute |
| received\_MarketDocument.type | | | | (1…3 chars) | N  O | The document type is used to identify the type of document being acknowledged. | The document type is mandatory in contexts where there is potential ambiguity about the document being acknowledged |
| received\_MarketDocument.process.processType | | | | (1…3 chars) | N  O | The identification of the nature of process that the document addresses. | The information is extracted from the received document. |
| received\_MarketDocument.createdDateTime | | | | (1…3 chars) | N  O | The date and time of the creation of the document. | The information is extracted from the received document. |
|  | **Rejected\_TimeSeries** | | |  | N  O |  | In case the time series level error. |
|  | mRID | | | (1..60 chars) | Y  E  S | The time series in the received document that has been rejected during the initial validation process. | Time series included in the received document. |
|  | | **Reason** | |  | Y  E  S |  |  |
|  | | code | | (1…3 chars) | Y  E  S | A code providing the acknowledgement status at Time Series Level. | Reason codes are described in the table below. |
|  | | text | | (1…150 chars) | N  O | Textual description of a rejection. | Reason Title from table below should be used as ReasonText. |
|  | | **InError\_Period** | |  | N  O |  | In case of the time period level error. |
|  | | start | | UTC DateTime | YE  S | The start date and time of the time period in error.  This information is used to identify the time interval that has been identified as being in error. | The start and end date and time must be expressed in UTC time zone and as YYYY-MM-DDTHH:MMZ. |
|  | | end | | UTC DateTime | Y  E  S | The end date and time of the time period in error.  This information is used to identify the time interval that has been identified as being in error. | The start and end date and time must be expressed in UTC time zone and as YYYY-MM-DDTHH:MMZ. |
|  | | | **Reason** |  | Y  E  S |  |  |
|  | | | code | (1…3 chars) | Y  E  S | A code providing the acknowledgement status at Time Period Level. | Reason codes are described in the table below. |
|  | | | text | (1…150 chars) | N  O | Textual description of a rejection. | Reason Title from table below should be used as ReasonText. |
| **Reason** | | | |  | Y  E  S |  |  |
| code | | | | (1…3 chars) | Y  E  S | A code providing the acknowledgement status of received document. | Reason codes are described in the table below. In case of a received document without error, only one Reason element is necessary to acknowledge it. At least one reason element must appear associated with the header part of the document. |
| text | | | | (1…150 chars) | N  O | Textual description of a rejection. | Reason Title from table below should be used as ReasonText. |

### List of reason codes

List of reason codes provides information for applicable error codes for specific error in the document that will be validated in the BMS. List of reason codes is important for data providers (BSPs) to understand whether their submitted document was:

1. successfully accepted;
2. rejected due to some specific errors.

List with reason codes that are applicable to bid submission are provided in the table below.

|  |  |  |
| --- | --- | --- |
| Error code and text | Error description | Detailed description |
| A01- Message Fully Accepted | Message fully accepted | Message Fully Accepted. This is returned in all cases when validation succeeded. |
| A02- Message Fully Rejected | Message fully rejected | Message Fully Rejected. This is returned in all cases when validation fails. This message typically is accompanied with other error code(s) that provide more detailed information on errors. |
| A03- Message contains errors at the time series level | Message contains errors at the time series level | Message contains errors at the time series level.  Only if validation failed at Time Series level.  Typically is accompanied with other error codes to describe the issue in more detailed level. |
| A04- Schedule time interval incorrect | Schedule time interval incorrect | Bid document period (Reserved Bid Period Time Interval) must cover all time periods (Time intervals).  The following document’s attributes are checked:   * reservedBid\_Period.timeInterval * TimeInterval |
| A23- Area invalid | Area invalid | Connecting Area must be valid according to defined values for corresponding Document type. This is error at time series level. The following document’s attributes are checked:   * *connecting\_Domain.mRID* |
| A23- Area invalid (Acquiring area) | Area invalid | Acquiring Area must be valid according to defined values for corresponding Document type. This is error at time series level. The following document’s attributes are checked:   * acquiring\_Domain..mRID |
| A41- Resolution inconsistency | Resolution inconsistency | The following document’s attributes are checked:   * Resolution (Series\_Period level, Resolution tag).   Resolution must be valid according to defined values for corresponding Document type.  Resolution = PT15M (solution with MARI) |
| A42- Quantity inconsistency | Quantity inconsistency | Error contains:   * Time series ID for which the fault was discovered; * Time interval for each bid position where error detected;   The following attributes should be not zero:   * Qty |
| A42- Quantity inconsistency | Quantity inconsistency | The following attributes are checked for the number of decimal places:   * Qty – should be integer * minimum\_Quantity.quantity = should be integer (if exists) * energy\_Price.amount – should be not more than 2 decimal places |
| A42- Quantity inconsistency | Quantity inconsistency | This is error at time series level- error contains:   * Time series ID for each Time series in which error detected * Time interval for each bid position where error detected   Min Quantity can’t exceed Quantity  The following document’s attributes are checked:   * quantity.quantity * minimum\_Quantity.quantity |
| A46- Quantities must not be signed values | Quantities must not be signed values | This is error at time series level- error contains:   * Time series ID for each Time series in which error detected * Time interval for each bid position where error detected   Numeric attribute values must be non-negative.  The following document’s attributes are checked:   * quantity.quantity * minimum\_Quantity.quantity |
| A49- Position inconsistency | Position inconsistency | The number of position rows must correspond to period time interval for each Time Series in the document. (The number of intervals must be equal to (TimeInterval End date- TimerInterval Start date)/Resolution))  The following document’s attributes are checked:   * timeInterval * resolution * position |
| A51- Message identification or version conflict | Message identification or version conflict | System checks whether the document (Document Identification) with the same or higher version (Document Version) already exists in the system, if so, then the error should be registered.  The following document’s attributes are checked:   * mRID * revisionNumber   sender\_MarketParticipant.mRID |
| A53- Receiving party incorrect | Receiving party incorrect | The document Receiver EIC (in case BSP transmits the document) must correspond to AST - “Augstsprieguma tīkls” EIC. Receiver should be a party with ENTSO-E code which corresponds to Party Role Type = TSO |
| A55- Time series identification conflict | Time series identification conflict | The identification of the time series cannot have duplicates in bid document.  The following document’s attributes are checked:   * Time series mRID |
| A57- Deadline limit exceeded/ Gate not open | Deadline limit exceeded/ Gate not open | The bids initial data for certain period specified in document can’t be sent before BSP GOT and after BSP GCT.  Each TimeSeries is checked whether effective date matches the BSP GCT/BSP update GCT  Effective date is the time when BMS receives document.  The following document’s attributes are checked:   * reservedBid\_Period.timeInterval (the start date and time is checked) |
| A62- Invalid business type | Invalid business type | Business type must be valid according to defined values for corresponding Document type. The following document’s attributes are checked:   * businessType |
| A64- Resource Object Invalid | Resource Object Invalid | The Resource Provider EIC must be defined in the System configuration and must exist.  The following document’s attributes are checked:   * provider\_MarketParticipant.mRID |
| A65- Reserve object Technical limits exceeded | Reserve object Technical limits exceeded | Reserve Unit (registeredResource.mRID) defined for bid must be qualified for activities with bid’s product. Qualification data is defined in the Party hierarchy configuration.  The following document’s attributes are checked:   * registeredResource.mRID * quantity.quantity * minimum\_Quantity.quantity * flowDirection.direction * Divisible * marketAgreement.type |
| A68- Reserve Object not qualified for reserve type | Reserve Object not qualified for reserve type | The Reserve Unit EIC is mandatory, must be defined in the system configuration and must exist.  The following document’s attributes are checked:   * registeredResource.mRID |
| A69- Mandatory attributes missing | Mandatory attributes missing | The Market Agreement Type must be defined in the document.  The following document’s attributes are checked:   * marketAgreement.type |
| A78- Sender identification and/or role invalid (can't be sent about other party) | Sender identification and/or role invalid (can't be sent about other party) | The document Sender should be party with Party Role Type = BSP.  The document Sender EIC code must correspond to any active BSP EIC code in System Configuration The following document’s attributes are checked:   * sender\_MarketParticipant.mRID * sender\_MarketParticipant.marketRole.type |
| B09- Bid not accepted | Bid not accepted | Energy price must correspond to min max values defined as parameter in accordance to business rules.  The following document’s attributes are checked:   * flowDirection.direction * energy\_Price.amount |
| B30- Missing or not validated data for Status | Missing or not validated data for Status | Status must be valid according to defined Classifiers for corresponding Document type.  The following document’s attributes are checked:   * status |
| B30- Not validated data for Market agreement type | Not validated data for Market agreement type | Market Agreement Type must be valid according to defined Classifiers.  The following document’s attributes are checked:   * marketAgreement.type |
| B30- Market Agreement  Type must correspond to Acquaring area | Market Agreement  Type must correspond to Acquaring area | Market Agreement Type must correspond to Acquiring Area value.  The following document’s attributes are checked:   * marketAgreement.type * acquiring\_Domain.mRID |
| B30- Standart Market product value | Standart Market product value | Standart Market product must be valid according to defined values.  The following document’s attributes are checked:   * standard\_MarketProduct.marketProductType |
| B30- Missing or not validated data for Domain | Missing or not validated data for Domain | Header domain must be valid for document type according to defined values.  The following document’s attributes are checked:   * domain.mRID |
| B30- Missing or not validated data for Flow direction | Missing or not validated data for Flow direction | TS level direction must be valid according to defined values.  The following document’s attributes are checked:   * flowDirection.direction |
| B30- Bid does not exist of already deleted (Status Withdrawn is not permitted for this TS) | Bid does not exist of already deleted (Status Withdrawn is not permitted for this TS) | TS status Withdrawn can be set for **active TS only**.  The following document’s attributes are checked:   * Time series mRID * Status |
| **Bid linking and bid group validations:** | | |
| B30- Bid belongs to one group | Bid belongs to one group | A given bid cannot be exclusive and multipart at the same time.  Therefore, the attributes exclusiveBidIdentification and multipartBidIdentification cannot be used in combination.  The following document’s attributes are checked:   * exclusiveBidIdentification * multipartBidIdentification |
| B30- Bid in group for one MTU only | Bid in group for one MTU only | A given bid, that belongs to group should be submitted to one MTU.  Therefore, if bid used with attribute exclusiveBidIdentification or multipartBidIdentification, it cannot be used with more than one period and with more than one position.  The following document’s attributes are checked:   * Period * Position |
| B30- Bid in group must be unique | Bid in group must be unique | A given bid, that belongs to group should be unique in the system (i.e., bid mRID is unique in a given MTU and is not repeated on any other MTU in the system.).  The following document’s attributes are checked:   * Time\_Seriies. mRID * exclusiveBidIdentification or multipartBidIdentification |
| B30- At least two bids in current or previous group | At least two bids in current or previous group | In the group should be at least two bids in one MTU.  Therefore, if used attribute exclusiveBidIdentification or multipartBidIdentification for given MTU should be at least another bid with the same group identification (in the document or in System submitted earlier).  Withdrawn bid is not taken into account.  The following document’s attributes are checked:   * Time\_Seriies. mRID * exclusiveBidIdentification or multipartBidIdentification |
| B30- Group identifier is unique | Group identifier is unique | Identification used in attribute exclusiveBidIdentification or multipartBidIdentification should be unique across all documents (reserved bid) and MTU periods (is checked in System - identification can’t be used for any other MTU in BMS).  The following document’s attributes are checked:   * exclusiveBidIdentification or multipartBidIdentification |
| B30- Multipart group must have attributes with same values | Multipart group must have attributes with same values | All bids in the multipart group should be with the same direction and the same product type (is checked in System and in document)  The following document’s attributes are checked:   * multipartBidIdentification * standard\_MarketProduct.marketProductType * flowDirection.direction |
| B30- Multipart group must have different prices | Multipart group must have different prices | In the multipart group can’ t be more than one bid with the same price (is checked in System and in document)  The following document’s attributes are checked:   * multipartBidIdentification * Price |
| B30- Exclusive group must have attributes with same values | Exclusive group must have attributes with same values | All bids in the exclusive group should be with the same product type and status (is checked in System and in document)  The following document’s attributes are checked:   * exclusiveBidIdentification * standard\_MarketProduct.marketProductType with codes A05, A07 is applied to mFRR. * Status |
| B30- Technical link identifier is unique | Technical link identifier is unique | Linked bid Identification must be unique, i.e. is used for one bid only (simple or complex bid (i.e. one group)) in =MTU (is checked in System also).  The following document’s attributes are checked:   * LinkedBidsIdentification   For complex bid:  can’t be different LinkedBidsIdentification in the components for the same multipartBidIdentification or the same exclusiveBidsIdentification.  This also means that for bids in the same group LinkedBidsIdentification is repeated and can’t be different. But this LinkedBidsIdentification can’t be in the other group in the same MTU. |
| B30- Conditional link can’t be for complex bids | Conditional link can’t be for complex bids | If attributes group Linked\_BidTimeSeries is used with the bid, then it should be simple bid.  It means that all attributes below should be empty.  The following document’s attributes should be empty:   * exclusiveBidsIdentification * multipartBidIdentification |
| B30- Conditional linked bid for one MTU only | Conditional linked bid for one MTU only | A given bid, that is used with conditional linking Linked\_BidTimeSeries , it should be submitted to one MTU  Therefore, if bid is used with Linked\_BidTimeSeries, it cannot be used with more than one period and with more than one position.  The following document’s attributes are checked:   * Linked\_BidTimeSeries * Period * Position |
| B30- Bid with conditional link must be unique | Bid with conditional link must be unique | A given bid, that has conditional link must be unique (i.e. bid mRID is unique in a given MTU and is not repeated in any other MTU in the system).  The following document’s attributes are checked:   * Time\_Seriies. mRID * Linked\_BidTimeSeries |
| B30- Conditional link cannot be more than 3 MTU-1 and 3 MTU-2 | Conditional link cannot be more than 3 MTU-1 and 3 MTU-2 | A given bid, can’t be linked via conditional linking with more than 3 bids in MTU-1 and more than 3 bids in MTU-2 (is checked in DB). Linking to other MTUs is not allowed.  MTU-1 – previous MTU  MTU-2 – 2 previous MTU  The following document’s attributes are checked:   * Linked\_BidTimeSeries.mRID * Period, Position to define MTU0, MTU-1, MTU-2 |
| B30- Bid that is referred by conditional link must be unique and related to the specified MTU | Bid that is referred by conditional link must be unique and related to the specified MTU | For bid with conditional link ( i.e. in document bid is submitted with Linked\_BidTimeSeries).  Each bid, that is referenced by conditional link Linked\_BidTimeSeries must be unique (i.e. Linked\_BidTimeSeries.mRID bid is unique in one of the previous MTU and is not repeated in any other MTU in the system).  The following document’s attributes are checked:   * Linked\_BidTimeSeries * Linked\_BidTimeSeries.mRID |
| B30- Conditional link mRID cannot repeat | Conditional link mRID cannot repeat | A given bid (i.e. in one MTU0), can be linked via conditional linking with the other bid only once.  Linked\_BidTimeSeries.mRID value can’t repeat for given bid.  The following document’s attributes are checked:   * Linked\_BidTimeSeries.mRID |
| B30- Conditional link status matching | Conditional link status matching | A given bid’s conditional linking statuses should correspond to TS status of the bid.  Conditional linking status of the bid must be valid according to defined Classifiers.  The following document’s attributes are checked:   * Status * Linked\_BidTimeSeries.status   It is also checked that Time series if status is conditional linking (A65, A66), then exists Linked\_BidTimeSeries and if Linked\_BidTimeSeries not exists then Time series status is A06 or A13. |
| B30- Bid that is referred by conditional link can’t be withdrawn | Bid that is referred by conditional link can’t be withdrawn | For a bid, that is referenced by conditional link (i.e. in the system exists another bid that refers to given bid).  If the bid is submitted with status “Withdrawn”, then it can’t be referenced by another bid via a conditional link in the system.  The following document’s attributes are checked:   * TimeSeries.mRID |

List with reason codes that are applicable to bid update submission are provided in the table below.

|  |  |  |
| --- | --- | --- |
| Error code and text | Error description | Detailed description |
| A01- Message Fully Accepted | Message fully accepted | Message Fully Accepted. This is returned in all cases when validation succeeded |
| A02 - Message Fully Rejected | Message fully rejected | Message Fully Rejected. This is returned in all cases when validation fails. This message typically is accompanied with other error code(s) that provide more detailed information on errors. |
| A03- Message contains errors at the time series level. | Message contains errors at the time series level. | Message contains errors at the time series level.  Only if validation failed at Time Series level.  Typically is accompanied with other error codes to describe the issue in more detailed level. |
| A04- Schedule time interval incorrect | Schedule time interval incorrect | Bid document period (Reserved Bid Period Time Interval) must cover other time period (Time intervals).  The following document’s attributes are checked:   * reservedBid\_Period.timeInterval * TimeInterval |
| A09- Time series not matching (Bid attributes, except Status, Quantity, Business type must be the same as bid data in BMS) | Time series not matching (Bid attributes, except Status, Quantity, Business type must be the same as bid data in BMS) | It is forbidden to add new TS to the updating document.  The updated bid describing information should be the same as initial bid data and the bid should exists in the BMS:  The corresponding bid with latest data is searched in BMS by TimeSeries. mRID.  The following bid attributes are checked and should be the same as bid data in BMS:   * ConnectigDomain * AcquiringDomain * provider\_MarketParticipant.mRID * Devisible * registeredResource.mRID * Direction * *linkedBidsIdentification (another linked tags will be specified later)* * *marketAgreement.type* * *standard\_MarketProduct.marketProductType* * *minimum\_Quantity.quantity (for indivisible is empty)* * *Energy\_Price.amount* |
| A41- Resolution inconsistency | Resolution inconsistency | Resolution must be valid according to defined Classifiers for corresponding Document type.  The following document’s attributes attributes (tags) are checked:   * Resolution (Series\_Period level, Resolution tag) |
| A42- Quantity inconsistency | Quantity inconsistency | The following attributes are checked for the number of decimal places:   * Qty – should be integer   Only quantity.quantity is checked. Other numeric attributes can’t be changed with Bid Update document |
| A46- Quantities must not be signed values (Value must be non- negative) | Quantities must not be signed values (Value must be non- negative) | Numeric attribute values must be non-negative.  The following document’s attributes are checked:   * quantity.quantity   if the condition is not met for any of the specified attributes, then an error is registered.  Only quantity.quantity is checked. Other numeric attributes can’t be changed with Bid Update document |
| A49- Position inconsistency | Position inconsistency | The number of position rows must correspond to period time interval for each Time Series in the document. (The number of intervals must be equal to (TimeInterval End date- TimerInterval Start date)/Resolution))  The following document’s attributes are checked:   * timeInterval * resolution * position |
| A51- Message identification or version conflict | Message identification or version conflict (Document identification can’t be with next versions) | If the document (Document Identification) with the same document identification already exists in the system (and is successfully received), then the error should be registered, i.e next versions of the document can’t be sent.  The following document’s attributes are checked:   * mRID * sender\_MarketParticipant.mRID |
| A53- Receiving party incorrect | Receiving party incorrect | The document Receiver EIC must correspond to AST - “Augstsprieguma tīkls” EIC.  Receiver should be a party with ENTSO-E code which corresponds to Party Role Type = TSO.  The following document’s attributes are checked:   * Receiver. * Receiver Role |
| A55- Time series identification conflict | Time series identification conflict | The identification of the time series cannot have duplicates in bid document.  The following document’s attributes are checked:   * mRID |
| A57- Deadline limit exceeded/ Gate not open. | Deadline limit exceeded/ Gate not open. | The bids update data for certain period specified in document can’t be sent before BSP bid GCT.  Each TimeSeries is checked whether effective date matches the BSP bid update GCT.  Effective date is the time when BMS receives document.  The following document’s attributes are checked:   * reservedBid\_Period.timeInterval (the start date and time is checked) |
| A62- Invalid business type | Invalid business type | Business type must be valid according to defined Classifiers for corresponding Document type.  The following document’s attributes are checked:   * businessType |
| A78- Sender identification and/or role invalid (can't be sent about other party) | Sender identification and/or role invalid (can't be sent about other party) | The document Sender should be party with Party Role Type = BSP.  The document Sender EIC code must correspond to any active BSP EIC code in System Configuration.  The following document’s attributes are checked:   * sender\_MarketParticipant.mRID * sender\_MarketParticipant.marketRole.type |
| B30- Unverified. Missing or not validated data | Unverified. Missing or not validated data (The status must be from the list of valid values) | Status must be valid according to defined values for corresponding Document type.  The following document’s attributes are checked:   * status |
| B30- Status update. The status must be from the list of valid values | Only change from Available, Conditionally available, Conditionally available to Unavailable is allowed and in this case Quantity can’t be changed | For TS with TimeSeries.mRID check:  If Status is updated, then change from A06 - Available, A65 - Conditionally available, A66 - Conditionally unavailable to A11 - Unavailable is allowed only and Quantity can’t be changed.  The following document’s attributes are checked:   * status * quantity.quantity |
| B30- Quantity update | Quantity update (Only quantity decreasing is allowed and in this case Status can’t be changed and is not unavailable) | For TS with TimeSeries.mRID check:  If Quantity is updated, then only a decrease change is allowed, and Status can’t be changed.  The bid active status is the same as in system and is not Unavailable  The following document’s attributes are checked:   * status * quantity.quantity |
| B30- Activated Bid can’t be updated | Activated Bid can’t be updated | Update is allowed only for bids in statuses: AVAILABLE, COND\_AVAILABLE, COND\_UNAVAILABLE  The condition is checked for bid data in BMS (for example, the particular bid in status Ordered (or Activated) in BMS can’t be updated).  The following document’s attributes (tags) are checked using:   * mRID (on TS level) |
| B30- Reason code | Reason code (Only one instance of Reason code is allowed) | Only one instance of Reason code is allowed in TS.  The following document’s attributes (tags) are checked:   * Reason code |
| B30- Reason code | Reason code (Reason code is mandatory and must correspond to business type) | Reason code is mandatory in TS and must be valid according to defined values for corresponding business type.  The following document’s attributes (tags) are checked:   * Business type * Reason code |
| B30- Conditional linking 1 | Conditional linking 1 (If status is Unavailable, then Linked\_BidTimeSeries attribute can’t be populated) | If status is A11 – Unavailable, then the Linked\_BidTimeSeries attribute data cannot be populated.  The following document’s attributes (tags) are checked:   * Status * Linked\_BidTimeSeries |
| B30- Conditional linking 2 | Conditional linking 2 (If status is Conditionally available or Conditionally unavailable, then Linked\_BidTimeSeries attribute must be populated) | If status is A65 - Conditionally available or A66 - Conditionally unavailable, then the Linked\_BidTimeSeries attribute data must be populated.  The following document’s attributes (tags) are checked:   * Status * Linked\_BidTimeSeries |
| B30- Conditional linking 3 | Conditional linking 3 (Conditional linking attribute Linked\_BidTimeSeries data can’t changed) | If status is A65 - Conditionally available or A66 - Conditionally unavailable, then the Linked\_BidTimeSeries attribute data can’t change. It must be the same as in System.  The following document’s attributes (tags) are checked:   * Status * Linked\_BidTimeSeries (mRID and Status) |

List with reason codes that are applicable to activation order response submission are provided in the table below.

|  |  |  |
| --- | --- | --- |
| Error code and text | Error description | Detailed description |
| A01- Message Fully Accepted | Message fully accepted | Message Fully Accepted. This is returned in all cases when validation succeeded. |
| A02- Message Fully Rejected | Message fully rejected | Message Fully Rejected. This is returned in all cases when validation fails. This message typically is accompanied with other error code(s) that provide more detailed information on errors. |
| A03- Message contains errors at the time series level | Message contains errors at the time series level | Message contains errors at the time series level.  Only if validation failed at Time Series level.  Typically is accompanied with other error codes to describe the issue in more detailed level. |
| A04- Schedule time interval incorrect | Schedule time interval incorrect (The time periods of AO response and corresponding AO must be equal) | In the ACTR period on the Header level (ActivationTimeInterval) should be equal to ActivationTimeInterval in corresponding AO on the Header level.  The following document’s attributes are checked:   * OrderIdentification * OrderIdentificationVersion * ActivationTimeInterval |
| A23- Connecting area | Connecting area (Area invalid) | Connecting Area must be valid according to defined Classifiers for corresponding Document type.  The following document’s attributes are checked:   * connecting\_Domain.mRID |
| A46- Numeric values | Numeric values (Quantities must not be signed values) | Numeric attribute values must be non-negative.  The following document’s attributes are checked:   * qty |
| A49- Position | Position (Position inconsistency) | The number of Position (Pos) rows must correspond to time interval for Time Series and Resolution.  The Pos should be equal to 1.  The Resolution should be equal to: Time Interval End Date – Time Interval Start Date).  The following document’s attributes are checked:   * TimeInterval * Resolution * Pos |
| A51- Document identification or version | Document identification or version (Message identification or version conflict) | System checks whether the document (Document Identification) already exists in the system, if so, then the error should be registered.  The following document’s attributes are checked:   * DocumentIdentification * SenderIdentification   Note: in MARI do not expect several versions of the AO response |
| A51- Document identification or version | Document identification or version (Message identification or version conflict) | The ACTR document with the OrderIdentification (AO Document identification) and OrderIdentificationVersion (AO Document version) should exists in the system and Order Identification version must be equal with Order identification last version in the system.  The following document’s attributes are checked:   * OrderIdentification * OrderIdentificationVersion * SenderIdentification |
| A53- Receiving party incorrect | Receiving party incorrect | Receiver Identification specified in document must be BMS EIC according to Parties configuration and corresponding Receiver Role must be used checked against Party Role / Message configuration.  The following document’s attributes are checked:   * ReceiverIdentification * ReceiverRole |
| A55- Time series identification | Time series identification conflict (The error’s text ACTR describing information (Business type, Connecting Area, Acquiring Area, Resource provider, Direction, Quantity etc.) should be the same as in the corresponding AO)) | ACTR describing information (Business type, Connecting Area, Acquiring Area, Resource provider, Direction, Quantity etc.) should be the same as in the corresponding AO.  The following document’s attributes are checked:   * BusinessType * ConnectingArea * AcquiringArea * ResourceProvider * Direction * Qty |
| A57- Deadline limit exceeded/ Gate not open. | Deadline limit exceeded/ Gate not open. | ACTR for certain period specified in document can’t be sent before GOT and after GCT for ACTR.  Document Time Series are checked whether effective date matches the period till corresponding GOT min. and GCT (timeout starting from MTU for Activation response- configurable value for product type SA and DA separately. DA configuration relates also for product type SA&DA). |
| A64- Resource provider | Resource provider (Resource Object Invalid) | The Resource Provider EIC must be defined in the System configuration and must exist.  The following document’s attributes are checked:   * provider\_MarketParticipant.mRID |
| A68- Reserve object | Reserve object (Reserve Object not qualified for reserve type) | The Reserve Providing Unit EIC is mandatory, must be defined in the System configuration and must exist.  The following document’s attributes are checked:   * registeredResource.mRID   Reserve Providing Unit (RPU) belongs for one BSP. |
| A78- Sender | Sender (Sender identification and/or role invalid (can't send about other party)) | Sender Identification specified in document must correspond to System configuration and corresponding Receiver Role checked against Party Role / Message configuration.  The following document’s attributes are checked:   * SenderIdentification * SenderRole |
| B30- Time interval | Time interval (The time periods at TS level and Header level must be equal) | ACTR document time period on TS level (Time Interval) must be equal to Header time period (ActivationTimeInterval).  The following document’s attributes are checked:   * ActivationTimeInterval * TimeInterval |
| B30- Status | Status | Connecting Area must be valid according to defined values for corresponding Document type.  The following document’s attributes are checked:   * DocumentType * Status   The error’s text contains the attribute name for which the condition is not met |
| B30- Order Identification and version | Order Identification and version | Order Identification and Version should be filled in ACTR.  The following document’s attributes are checked:   * DocumentType * OrderIdentification * OrderIdentificationVersion   The error’s text contains the attribute name for which the condition is not met |

List with reason codes that are applicable to generation schedule/ consumption schedule (baseline) and control metering data submission are provided in the table below. Note that there are only general reason codes that will be distributed to data provider. Any other discrepancies shall be avoided by appropriate business logic of data providers local solution.

|  |  |  |
| --- | --- | --- |
| Error code and text | Error description | Detailed description |
| A01- Message Fully Accepted | Message fully accepted | Message Fully Accepted. This is returned in all cases when validation succeeded. |
| A02- Message Fully Rejected | Message fully rejected | Message Fully Rejected. This is returned in all cases when validation fails. This message typically is accompanied with other error code(s) that provide more detailed information on errors. |
| A51- Message identification or version conflict | Message identification or version conflict | System checks whether the document (Document Identification) already exists in the system, if so, then the error should be registered.  The following document’s attributes are checked:   * DocumentIdentification |
| A78- Sender identification invalid | Sender identification invalid | Sender Identification specified in document must correspond to Parties configuration and corresponding Receiver Role checked against Party Role / Message configuration.  The following document’s attributes are checked:   * SenderIdentification * SenderRole |

# aFRR business process for standard products

## General overview

A diagram of a variety of colors

Description automatically generated with medium confidence

A group of rectangular boxes with text

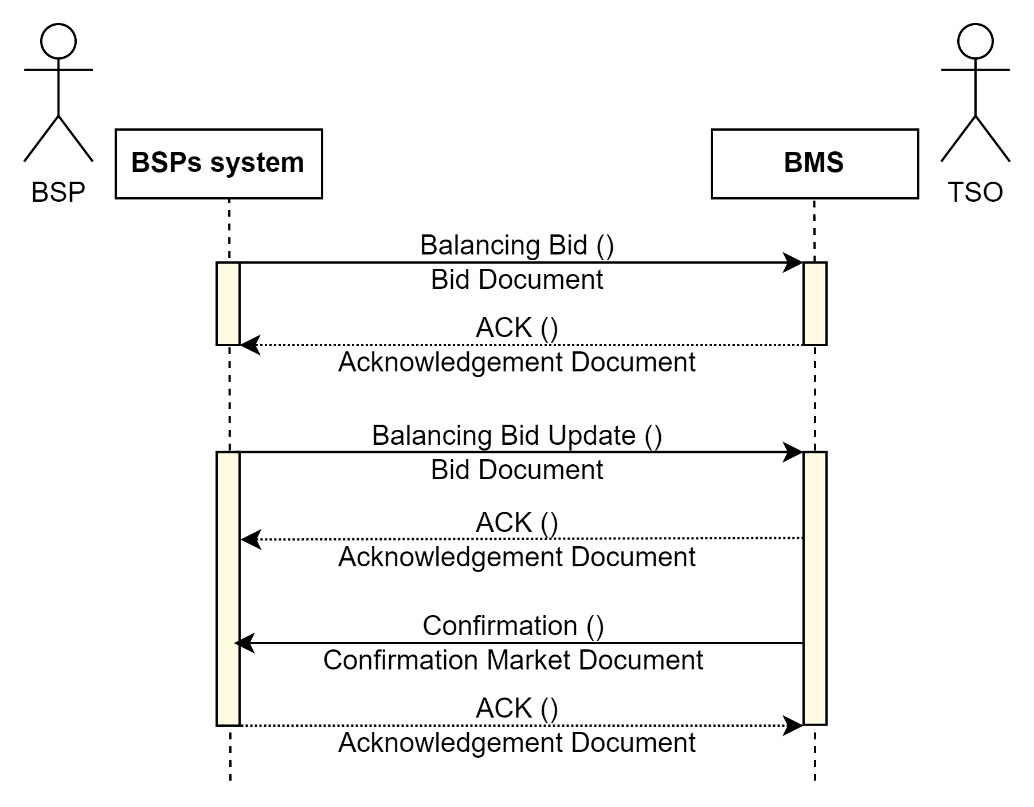
Description automatically generated with medium confidence

Process diagram depicts the general overview of subprocesses regarding aFRR balancing service provision with a focus on data exchange between parties.

During the time period of D-1 12:00 until BSP GCT (T-25min) the BSP shall submit aFRR balancing bids to TSO. Until the BSP GCT submitted bids can be modified, withdrawn or new bids can be added. In the time period After the BSP GCT and TSO GCT (T-10min) the TSO processes the bids in to local merit order list (LMOL) provides the LMOL with the bid data to European aFRR platform (PICASSO). After BSP GCT the BSP is allowed to update the bid it has provided only in case of technical issues (e.g., unexpected technical issues with reserve unit, disconnection from the grid, temperature limits exceeded, others). In case if the bid is updated after BSP GCT, the bid unavailability reason shall be provided.

Based on the system needs and the market results (bids consolidated in the Common Merit Order List- CMOL) in PICASSO the real time activation demand setpoint is sent to TSO and TSO issues the real time activation setpoint that is sent to the respective BSP, based on the LMOL. After the activation setpoint is issued the BSP activates the reserve as per setpoint in timeframes defined by aFRR product specification. The BSP is obliged to provide real time information in line with the Technical and Data Exchange Requirements. The real-time data exchange is outside the scope of BMS and outside the scope of this document.

## Sequence diagram



## Business rules

This section describes the business rulers that applies to the Bid Submission in the BMS. Merit Order List compilation, data exchange with centralized aFRR platforms and data exchange with Load Frequency Controller (LFC) is outside the scope of this document.

### General rules

For each file-based 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.

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

For Reserve Bid Market Documents, data providers may submit higher versions containing updated bids only as detailed in chapter 8.2.2. and 12.1

The BMS will as far as technically feasible validate that submitted data complies with the business rules and permitted combinations of attributes as articulated by this implementation guide. Any data submission that fails such validation will be rejected by the system. BSP shall not submit a higher version of a document before it has received acknowledgement of previous version. This rule must be implemented locally. A data submission that violates this rule may result in data not processed properly by the BMS; bids may be ignored, for example.

The timing restrictions provided in business rules are according to EET, the data included in XML documents should be represented in UTC time.

In case of unavailability of Web Service the BSP can use GUI for manual upload of XML documents.

### Bid submission

**Balancing bid data exchange schema**

A black background with white text

Description automatically generated

**Dependencies governing Balancing Bid document**

All information about the bid is included in the bid document that is provided by BSP to TSO. Submission of bids for next EET day can be done no earlier than D-1 12:00 EET. The maximum period of time series is 24h. The bids can be provided not later than BSP Gate Closure Time - 25 minutes before the corresponding bid start period.

BSP is responsible to provide unique bid time series identification and document identification. The times series identification of already submitted bid is used to refer to the bid in next documents (possibly with different document identification) to make changes in the bid or withdraw it.

The BMS will perform validation of the bid, checking the maximum allowed capacity of the Reserve unit that is included in the bid information and several other limitations that should be followed and are in line with the Rules for balancing service provision.

The document time period is used to provide information about the period under consideration. When providing consecutive versions of the bid, if the time period of bid included in the document is shorter than document time period, the bid time period that is not included in bid time series period but is covered by document time period is going to be deleted, it only applies if in previous versions this period was covered by the time series. For more detailed explanation please see chapter 12.1.

Only bids to be updated or newly added bids should be included in document. The bids that are not included but were sent in previous document/-s remain unchanged.

To completely withdraw the bid BSP send the appropriate bid document including time series period which is to be withdrawn and bid status should be set to withdrawn.

**Document structure diagram**

A diagram of a data flow

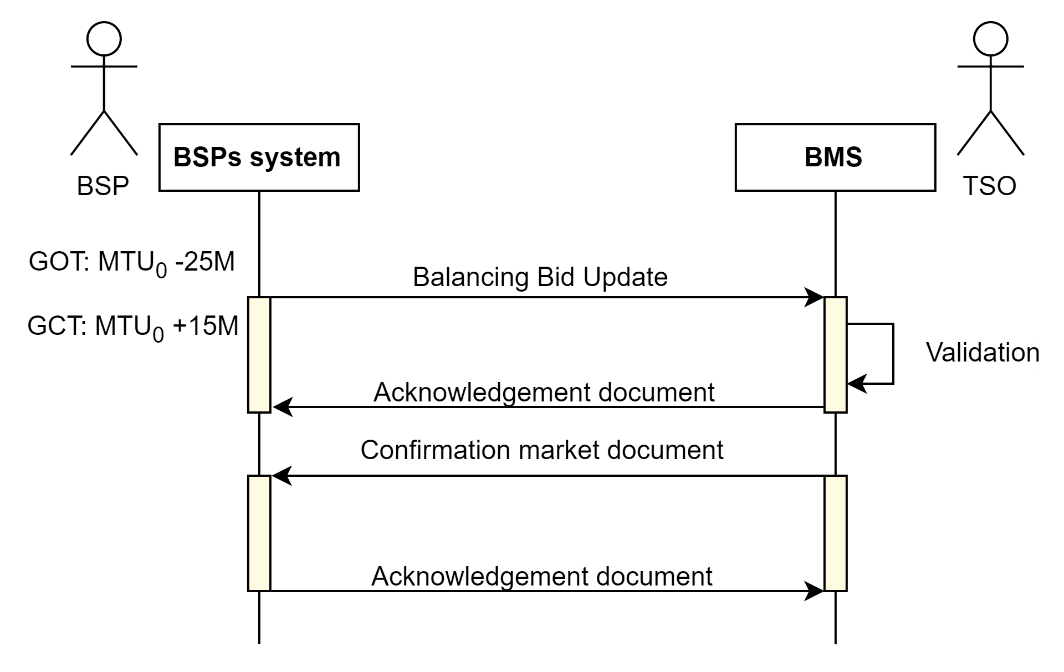
Description automatically generated

**Document element description**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Tag | | | | | Value aFFR | Mandatory[[12]](#footnote-13) | Description | Conditions |
| Header | | | | |  |  |  |  |
| mRID | | | | | (1..60 chars) | YES | Unique identification of the Bid Document |  |
| revisionNumber | | | | | (1….3 chars) | YES | Document version | Initial transmission shall equal "1". Every next version should be higher than previous. |
| type | | | | | A37 | YES | Type of the document | A37 - Reserve Bid document |
| process.processType | | | | | A51 | YES | The process type identifies the process to which the information flow is directed. | A51 = automatic frequency restoration reserves (aFRR) |
| Sender\_MarketParticipant.mRID | | | | | (1…16 chars) | YES | Identification of the party who is sending the document | EIC of party who is sending the document |
| Sender\_MarketParticipant.MarketRoleType | | | | | A27 | YES | Identification of the role that is played by the sender. | A27 – resource provider |
| Receiver\_MarketParticipant.mRID | | | | | 10X1001A1001B54W | YES | Identification of the party who is receiving the document | TSO EIC code.  10X1001A1001B54W –AST |
| Receiver\_MarketParticipant.MarketRoleType | | | | | A04 | YES | Identification of the receiver role | A04 – System operator |
| CreatedDateTime | | | | | UTC DateTime | YES | Date and time of document creation | The date and time must be expressed in UTC as YYYY-MM-DDTHH:MM:SSZ. |
| reserveBid\_Period.timeInterval | | | | |  |  | Validity period start time & validity period end time. | Followed by information tags <start> and <end> |
| start | | | | UTC DateTime | YES | The beginning date and time of the period covered by the document. | The start and end date and time must be expressed in UTC time zone and as YYYY-MM-DDTHH:MMZ. |
| end | | | | UTC DateTime | YES | Ending date and time of the period covered by the document. | The start and end date and time must be expressed in UTC time zone and as YYYY-MM-DDTHH:MMZ. |
| domain.mRID | | | | | 10YLV-1001A00074 | YES | EIC of area covered by sender | EIC code of Latvia:  10YLV-1001A00074 |
| subject\_MarketParticipant.mRID | | | | | 10X1001A1001B54W | NO | The identification of a party in the energy market | EIC of party who is providing the bid |
| subject\_MarketParticipant.MarketRoleType | | | | | A27 | NO | The identification of the role played by a market player | A27 – resource provider |
|  | **Bid\_TimeSeries** | | | |  |  |  |  |
|  | mRID | | | | (1..60 chars) | YES | Unique identification of the bid assigned by BSP |  |
|  | auction.mRID | | | | AUCTION\_aFRR | NO | A unique identification assigned by the Reserve Allocator of the set of specifications that clearly defines the auction to which the tender is addressed.  For general reference purposes only. | "AUCTION\_aFRR" for aFRR bids. |
|  | businessType | | | | B74 | YES | The nature of the time series for which the product is handled. | B74 - Offer |
|  | acquiring\_Domain.mRID | | | | 10Y1001C--00090V | YES | The EIC identification of the scheduling area where the energy is going | EIC code of PICASSO area:  10Y1001C--00090V |
|  | energyPrice\_Measurement\_Unit.name | | | | MWH | YES | The unit of measurement used for the energyPrice expressed | Always expressed in MWH = Megawatt hours |
|  | connecting\_Domain.mRID | | | | 10YLV-1001A00074 | YES | The area where the energy is coming from | EIC code of Latvia:  10YLV-1001A00074 |
|  | provider\_MarketParticipant.mRID | | | | (1…16 chars) | NO | A unique identification of the Resource Provider responsible for reserve bid | EIC of the BSP |
|  | quantity\_Measure\_Unit.name | | | | MAW | YES | The unit of measurement used for the quantities expressed within the time series. | Always expressed in megawatts – MAW |
|  | currency\_Unit.name | | | | EUR | NO | The currency in which the monetary amount is expressed. | Constant value: EUR |
|  | divisible | | | | A01 | YES | The indication of whether or not the activated quantity can be lower than offered. | For aFRR always  A01 - Yes (divisible) |
|  | status | | | | A06  A13 | NO | The status of the bid. | The following Status codes permitted:  A06 – Available  A13 – Withdrawn |
|  | registeredResource.mRID | | | | (1…18 chars) | NO | Identification of the resource that will be used to supply the energy | EIC code of Reserve Unit.  For example specific power generating module or demand unit or group qualified by TSO. |
|  | flowDirection.direction | | | | A01  A02 | YES | This identifies the direction of the energy flow. | A01 - UP;  A02 - DOWN. |
|  | marketAgreement.type | | | | A01 | NO | The type of the market agreement | For aFRR product free bids A01. |
|  | marketAgreement.mRID | | | | (1…18 chars) | NO | Market agreement identification | If aFRR free bid, then not used; |
|  | standard\_MarketProduct.marketProductType | | | | A01 | YES | Used when the bid refers to a standard product | A01 – Standard product; |
|  |  | **Period** | | |  |  |  |  |
|  |  | TimeInterval | | |  |  |  |  |
|  |  | | start | | UTC DateTime | YES | The beginning date and time of the period. | The start and end date and time must be expressed in UTC time zone and as YYYY-MM-DDTHH:MMZ. |
|  |  | | end | | UTC DateTime | YES | Ending date and time of the period. | The start and end date and time must be expressed in UTC time zone and as YYYY-MM-DDTHH:MMZ. |
|  |  | Resolution | | | PT15M | YES | The resolution defining the number of periods that the time interval is divided. | Time resolution for bid is equal to bid validity period, expressed in following format: PnYnMnDTnHnMnS.  Only PT15M is used for aFRR |
|  |  |  | | **Point** |  |  |  |  |
|  |  |  | | position | (1…6 chars) | YES | Position within the time interval |  |
|  |  |  | | quantity.quantity | (1…17 numeric chars) | YES | Quantity offered | That is expressed in the Measurement Unit Quantity  Min = 1MW, resolution 1MW  Note that there shouldn't be any decimal positions |
|  |  |  | | Energy\_Price.amount | (1…17 numeric chars) | NO | The price of the energy | Not more than two decimal positions can be included.  Expressed in currency\_Unit.name |

### Update of bid after GCT

**Bid update data exchange schema**



**Dependencies governing Balancing Bid Update document**

The same document as for balancing bid document is used for Balancing Bid Update submission.

For bid update before BSP GCT there are no differences from the original submitted bid file structure. Balancing bid can be update in case of unexpected technical limitations in any moment after H-25 min but not later than before activation or the end of bid validity period.

The balancing bid update should contain only the corresponding market time unit data that is being updated, the appropriate bid time series identification should be used. Only the quantity and status updates are allowed, all other fields of the document should match the last bid version before the GCT.

The start of time period for which the update is done should be in future or if the bid validity period has already started, the start of the bid validity period and end of time period should be the end of corresponding bid validity period. In case the bid times series will contain the time period partly or fully in the past before the start of the bid validity the bid update will be rejected.

The quantity specified in bid document should correspond to remaining available quantity. The updated bid document should contain the remaining quantity (that can't be higher than original quantity) and the bid status - available. If the whole amount is unavailable the quantity should be set to 0 MW. It should be noted that each bid update document should have a unique mRID. Sending next version is allowed only in case previous one was not successfully validated and document was rejected.

**Document structure diagram –** see chapter 8.3.2.

**Document element description**

The value of **grey** coloured tags should be the same as in the original Bid document provided by BSP.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Tag | | | | | | Value aFRR | | Mandatory[[13]](#footnote-14) | Description | | | Conditions | |
| Header | | | | | |  | |  |  | | |  | |
| mRID | | | | | | (1..60 chars) | | YES | Unique identification of the Bid Document | | |  | |
| revisionNumber | | | | | | (1….3 chars) | | YES | Document version | | | Initial transmission shall equal "1". Every next version should be higher than previous. | |
| type | | | | | | Z42 | | YES | Type of the document | | | Z42 - Reserve Bid Update document | |
| process.processType | | | | | | A51 | | NO | The process type identifies the process to which the information flow is directed. | | | A51 - aFRR | |
| Sender\_MarketParticipant.mRID | | | | | | (1…16 chars) | | YES | Identification of the party who is sending the document | | | EIC of party who is sending the document | |
| Sender\_MarketParticipant.MarketRoleType | | | | | | A27 | | YES | Identification of the role that is played by the sender. | | | A27 – resource provider | |
| Receiver\_MarketParticipant.mRID | | | | | | 10X1001A1001B54W | | YES | Identification of the party who is receiving the document | | | TSO EIC code.  10X1001A1001B54W –AST | |
| Receiver\_MarketParticipant.MarketRoleType | | | | | | A04 | | YES | Identification of the receiver role | | | A04 – System operator | |
| CreatedDateTime | | | | | | UTC DateTime | | YES | Date and time of document creation | | | The date and time must be expressed in UTC as YYYY-MM-DDTHH:MM:SSZ. | |
| reserveBid\_Period.timeInterval | | | | | |  | |  |  | | |  | |
| start | | | | UTC DateTime | | YES | The beginning date and time of the period covered by the document. | | | The start and end date and time must be expressed in UTC time zone and as YYYY-MM-DDTHH:MMZ. | |
| end | | | | UTC DateTime | | YES | Ending date and time of the period covered by the document. | | | The start and end date and time must be expressed in UTC time zone and as YYYY-MM-DDTHH:MMZ. | |
| domain.mRID | | | | | | 10YLV-1001A00074 | | YES | EIC of area covered by sender | | | EIC code of Latvia:  10YLV-1001A00074 | |
| subject\_MarketParticipant.mRID | | | | | | 10X1001A1001B54W | | NO | The identification of a party in the energy market | | | EIC of party who is providing the bid | |
| subject\_MarketParticipant.MarketRoleType | | | | | | A27 | | NO | The identification of the role played by a market player | | | A27 – resource provider | |
|  | **Bid\_TimeSeries** | | | | |  | |  |  | | |  | |
|  | mRID | | | | | (1..60 chars) | | YES | Unique identification of the bid assigned by BSP | | |  | |
|  | auction.mRID | | | | |  | | NO | A unique identification assigned by the Reserve Allocator of the set of specifications that clearly defines the auction to which the tender is addressed.  For general reference purposes only. | | | Constant value: "AUCTION\_aFRR" for aFRR bids. | |
|  | businessType | | | | | B74 | | YES | The nature of the time series for which the product is handled. | | | B74 - Offer | |
|  | acquiring\_Domain.mRID | | | | | 10Y1001C--00090V | | YES | The EIC identification of the scheduling area where the energy is going | | | Equal to connecting\_Domain.mRID  EIC code of PICASSO area:  10Y1001C--00090V | |
|  | energyPrice\_Measurement\_Unit.name | | | | | MWH | | YES |  | | | Always expressed in MWH = Megawatt hours | | |
|  | connecting\_Domain.mRID | | | | | 10YLV-1001A00074 | | YES | The area where the energy is coming from | | | EIC code of Latvia:  10YLV-1001A00074 | |
|  | provider\_MarketParticipant.mRID | | | | | (1…16 chars) | | NO | A unique identification of the Resource Provider responsible for reserve bid | | | EIC of the BSP | |
|  | quantity\_Measure\_Unit.name | | | | | MAW | | YES | The unit of measurement used for the quantities expressed within the time series. | | | Always expressed in megawatts – MAW | |
|  | currency\_Unit.name | | | | | EUR | | NO | The currency in which the monetary amount is expressed. | | | Constant value: EUR | |
|  | Divisible | | | | | A01 | | YES | The indication of whether or not the activated quantity can be lower than offered. | | | A01 - Yes (divisible) | |
|  | status | | | | | A06, A11 | | YES | The status of the bid. | | | The following Status codes permitted:  A06 – Available  A11 - Unavailable | |
|  | registeredResource.mRID | | | | | (1…18 chars) | | NO | Identification of the resource that will be used to supply the energy | | | EIC code of Reserve Unit.  For example specific power generating module or demand unit or group qualified by TSO. | |
|  | flowDirection.direction | | | | | A01  A02 | | YES | This identifies the direction of the energy flow. | | | A01 - UP;  A02 - DOWN. | |
|  | marketAgreement.type | | | | | ?? | | NO | The type of the market agreement | | | If mFRR, then A01 - Daily  If ER mFRR, then:  Z59 - Volume ER mFRR (100 MW) | |
|  | marketAgreement.mRID | | | | | (1…18 chars) | | NO | Market agreement identification | | | If mFRR free bid, then not used;  If ER mFRR then procurement or auction agreement ID for capacity. | |
|  | standard\_MarketProduct.marketProductType | | | | | A01 | | NO | Used when the bid refers to a standard product | | | A07 - Standard mFRR product eligible for scheduled and direct activation | |
|  | businessType | | | | | C40  C41  C42  C43  C44  C45  C46 | | NO | Used for bid updates after BSP GCT in case of unavailability. Mandatory if BidTimeSeries.status is A11 - Unavailable | | | C40 = Conditional bid  C41 = Thermal limit  C42 = Frequency limit  C43 = Voltage limit  C44 = Current limit  C45 = Short-circuit current limits  C46 = Dynamic stability limit | |
|  |  | | **Period** | | |  | |  |  | | |  | |
|  |  | | TimeInterval | | |  | |  |  | | |  | |
|  |  | | | start | | UTC DateTime | | YES | The beginning date and time of the period. | | | The start and end date and time must be expressed in UTC time zone and as YYYY-MM-DDTHH:MMZ. | |
|  |  | | | end | | UTC DateTime | | YES | Ending date and time of the period. | | | The start and end date and time must be expressed in UTC time zone and as YYYY-MM-DDTHH:MMZ. | |
|  |  | | Resolution | | | PT15M | | YES | The resolution defining the number of periods that the time interval is divided. | | | PT15M for aFRR | |
|  |  | |  | | **Point** |  | |  |  | | |  | |
|  |  | |  | | position | (1…6 chars) | | YES | Position within the time interval | | | Not more than 1 position allowed. | |
|  |  | |  | | quantity.quantity | (1…17 numeric chars)  Min = 0 MW, resolution 1MW | | YES | Quantity offered | | | That is expressed in the Measurement Unit Quantity | |
|  |  | |  | | minimum\_Quantity.quantity |  | | NO | Minimum bid quantity to be activated | | | If divisible = yes, then fixed value = 1 MW, if divisible = no, then not used. | |
|  |  | |  | | Energy\_Price.amount |  | | NO | The price of the energy | | | Not more than two decimal positions can be included. | |
| **Reason** | | | |  | | |  |  | |  | |
| Code | | | | (1…3 chars) | | | YES | Refer to the ENTSO-E reason codelist for appropriate codes. NOTE!!: Please refer to businessType parameter in Bid Time Series | | When business type = C40 the following reason only applies:  B16 = Tender unavailable in MOL list  When business type = C41 or C44 the following reason only applies:  B46 = Internal congestion  When business type = C42 one of the following reasons apply:  Bgg = Insufficiency of required reserve capacity  Bhh = Technical unavailability of specific reserve providing unit(s)  When business type = C43, C45 or C46 one of the following reasons apply:  B18 = Failure  B46 = Internal congestion  B47 = Operational security constraints  B60 = Unavailability of automatic protection systems | |
| Text | | | | (1…150 chars) | | | NO | Description of the reason | | Reason of the unavailability should be provided in the reason text part. | |
| **Registered Resources** | | | |  | | |  |  | |  | |
| mRID | | | | (1…16 chars) | | | NO | EIC code of the concerned network element | |  | |

Confirmation document

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Tag | | Value aFRR | Mandatory[[14]](#footnote-15) | Description | Conditions |
| Header | |  |  |  |  |
| mRID | | (1..60 chars) | YES | Unique identification of the Confirmation Document |  |
| revisionNumber | | (1….3 chars) | YES | Document version | Initial transmission shall equal "1". Every next version should be higher than previous. |
| type | | B41 | YES | Type of the document | B41 – Merged MOL notice |
| process.processType | | A51 | NO | The process type identifies the process to which the information flow is directed. | A51 - aFRR |
| Sender\_MarketParticipant.mRID | | 10X1001A1001B54W | YES | Identification of the party who is sending the document | TSO EIC code.  10X1001A1001B54W –AST |
| Sender\_MarketParticipant.MarketRoleType | | A04 | YES | Identification of the role that is played by the sender. | A04 – System operator |
| Receiver\_MarketParticipant.mRID | | (1…16 chars) | YES | Identification of the party who is receiving the document | EIC of party who is receiving the document (bid submitter EIC) |
| Receiver\_MarketParticipant.MarketRoleType | | A27 | YES | Identification of the receiver role | A27 – resource provider |
| createdDateTime | | UTC DateTime | YES | Date and time of document creation | The date and time must be expressed in UTC as YYYY-MM-DDTHH:MM:SSZ. |
| schedule\_Period.timeInterval | |  | YES | The duration of the delivery period (15 minutes) |  |
| start | UTC DateTime |  | Start time of the delivery period (15 minutes) | The date and time must be expressed in UTC as YYYY-MM-DDTHH:MM:SSZ. |
| end | UTC DateTime |  | End time of the delivery period (15 minutes) | The date and time must be expressed in UTC as YYYY-MM-DDTHH:MM:SSZ. |
| domain.mRID | | 10Y1001C--00090V | YES | The unique identification of the domain (PICASSO region) | EIC of PICASSO region = 10Y1001C--00090V |
| confirmed\_ MarketDocument.mRID | |  |  | mRID of reserve bid document for which merging is confirmed |  |
| confirmed\_ MarketDocument.revisionNumber | |  |  | revision number of reserve bid document for which merging is confirmed |  |
| subject\_MarketParticipant.mRID | |  |  | EIC that sent the reserve bid document for which merging is confirmed |  |
| subject\_MarketParticipant.marketRole.type | |  |  |  | A04 = System Operator |
| Reason: | |  |  |  |  |
| code |  |  |  | MOL merging successful = B53 MOL merging failed = B54 |
| text |  | NO | Optional text string |  |

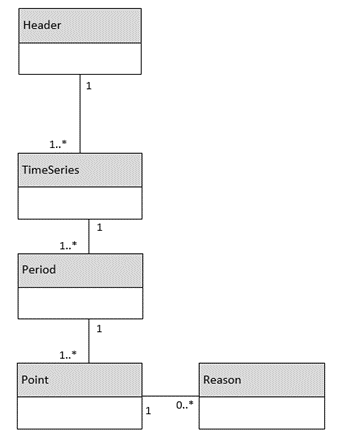
# Generation schedule and consumption schedule (baseline)

Exchange schema and structure diagram for submission of generation schedule and consumption schedule (baseline) for aFRR and mFRR are the same. The main differences between aFRR and mFRR are in document element description that are described in the table below.

A diagram of a system

Description automatically generated**Baseline data exchange schema**

**Baseline structure diagram**

****

**Document element description**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Tag** | | | | | **Value** | **Mandatory** | **Description** | **Conditions** |
| **Header** | | | | |  |  |  |  |
| mRID | | | | | (1…35 chars) | YE  S | Unique identification of the document for which the time series data is being supplied. | All additions, modifications, or suppressions for the time series must use the same identification. |
| RevisionNumber | | | | | (1…3 chars) | YE  S | Document version | Version of the document being sent. A  document may be sent several times,  each transmission being identified by a  different version number that starts at 1 and increases sequentially. |
| Type | | | | | A14 | YE  S | The document type | A14 - Resource provider resource schedule |
| DocStatus | | | | | A02 | Y  E  S | The document status | A02 – Final |
| process.processType | | | | | A05 | YE  S | The process type identifies the process to which the information flow is directed. | A05 - Metered data aggregation |
| process.classificationType | | | | | A01 | YE  S | A type that is used to classify the document by aggregation or classification | A01 – Detail |
| sender\_MarketParticipant.mRID | | | | | (1…16 chars) | YE  S | Identification of the party that is the owner of the document | EIC of the sender |
| sender\_MarketParticipant.marketRole.type | | | | | A27 | YE  S | Identification of the role that is played by the sender. | A27 – resource provider |
| receiver\_MarketParticipant.mRID | | | | | 10X1001A1001B54W | YE  S | Identification of the party who is receiving the document | AST EIC:  10X1001A1001B54W |
| receiver\_MarketParticipant.marketRole.type | | | | | A04 | YE  S | Identification of the receiver role | A04 – System operator |
| CreatedDateTime | | | | | UTC DateTime | YE  S | The date and time that the document was prepared for transmission by the application of the sender | The date and time must be expressed in UTC time zone and in UTC as YYYY-MM-DDTHH:MM:SSZ. |
| **period.timeInterval** | | | | |  |  |  |  |
| start | | | | | UTC DateTime | YE  S | The beginning date and time of the period covered by the document. | The start date and time must be expressed in UTC time zone and as YYYY-MM-DDTHH:MMZ.  period.timeInterval is fixed during 1 day. Full local time day, expressed in UTC. |
| end | | | | | UTC DateTime | YE  S | Ending date and time of the period covered by the document. | The end date and time must be expressed in UTC time zone and as YYYY-MM-DDTHH:MMZ.  Period.timeInterval is fixed during 1 day. |
|  | **Time series** | | | |  |  |  |  |
|  | mRID | | | | (1…35 chars) | YE  S | Sender’s identification of the time series instance. | This must be unique for the whole document and guarantee the non-duplication of all the attributes of the account time series class. |
|
|  | BusinessType | | | | A13 | YE  S | The nature of the time series for which the product is handled. | A13 - Load profile |
|  | Product | | | | 8716867000030 | YE  S | Identification of an energy product such as power, energy, reactive power, transport, capacity, etc. | 8716867000030 – Active energy |
|  | objectAggregation | | | | A03 | YE  S | Identifies how the object is aggregated | Baseline:  A03 Party |
|  | area\_Domain.mRID | | | | 10YLV-1001A00074 | YE  S | The area of concern for the imbalance settlement responsible that the time series addresses | Latvia EIC:  10YLV-1001A00074 |
|  | marketParticipant.mRID | | | | (1…16 chars) | NO | The party of concern for the time series | In special cases when report data is concerning other market participant, EIC of that said participant should be included here.  By default, sender EIC should be used. |
|  | measure\_Unit.name | | | | MWH | YE  S | The unit of measurement used for the quantities expressed within the time series. | Always expressed in megawatt-hours - MWH |
|  | marketEvaluationPoint.mRID | | | | (1…16 chars) | NO | A point where the calculation of the energy produced or consumed is carried out. | It may be a physical point situated at an extremity of a line; a virtual point that is an agreed position between two connections or an aggregation of physical or virtual points.  Baseline (Baseline data for whole portfolio):  EIC of the reserve unit (ReU) |
|  |  | **Period** | | |  |  |  |  |
|  |  | **TimeInterval** | | |  |  |  |  |
|  |  | | | start | UTC DateTime | YE  S | The beginning date and time of the period being reported. | The start date and time must be expressed in UTC time zone and as YYYY-MM-DDTHH:MMZ.  timeInterval is same as period.timeInterval for submission on D-1. For Baseline updates during day only MTUs that are available for updates can be included.  YYYY-MM-DDTHH:MMZ. |
|  |  | | | end | UTC DateTime | YE  S | Ending date and time of the period being reported. | The end date and time must be expressed in UTC time zone and as YYYY-MM-DDTHH:MMZ.  timeInterval for submission on D-1 is the same as period.timeInterval. For Baseline updates during day only MTUs that are available for updates can be included.  YYYY-MM-DDTHH:MMZ |
|  |  | Resolution | | | PT15M | YE  S | The resolution defining the number of periods that the time interval is divided. | PnYnMnDTnHnMnS:  Where nY expresses a number of years, nM a number of months, nD a number of days. The letter “T” separates the date expression from the time expression and after it nH identifies a number of hours, nM a number of minutes and nS a number of seconds. |
|  |  |  | **Point** | |  |  |  |  |
|  |  |  | Position | | (1…6 chars) | YE  S | This information provides the relative position of a period. | The relative position must be expressed as a numeric integer value beginning with 1.  All leading zeros must be suppressed. |
|  |  |  | in\_Quantity.quantity | | (1…17 numeric chars) | YE  S | The quantity of the product that enters the area. | The quantity of the product that enters the control area (energy provided to the grid) for the position within the account interval in question.  Max three decimal positions. |
|  |  |  | out\_Quantity.quantity | | (1…17 numeric chars) | YE  S | The quantity of the product that leaves the area. | The quantity of the product that leaves the control area (energy consumed from the grid) for the position within the account interval in question.  Max three decimal positions. |

## Generation schedule and consumption schedule (baseline) example

Note that baseline document can be submitted for the whole day.

<**EnergyAccount\_MarketDocument** xmlns='urn:iec62325.351:tc57wg16:451-4:energyaccountdocument:4:0'>

<**mRID**>BASELINE-doc-ID</**mRID**>

<**revisionNumber**>1</**revisionNumber**>

<**type**>A14</**type**>

<**docStatus**>

<**value**>A02</**value**>

</**docStatus**>

<**process.processType**>A05</**process.processType**>

<**process.classificationType**>A01</**process.classificationType**>

<**sender\_MarketParticipant.mRID** codingScheme='A01'>BSP-EIC</**sender\_MarketParticipant.mRID**>

<**sender\_MarketParticipant.marketRole.type**>A27</**sender\_MarketParticipant.marketRole.type**>

<**receiver\_MarketParticipant.mRID** codingScheme='A01'>10X1001A1001B54W</**receiver\_MarketParticipant.mRID**>

<**receiver\_MarketParticipant.marketRole.type**>A04</**receiver\_MarketParticipant.marketRole.type**>

<**createdDateTime**>2024-05-09T11:09:41Z</**createdDateTime**>

<**period.timeInterval**>

<**start**>2024-05-10T17:00Z</**start**>

<**end**>2024-05-10T18:00Z</**end**>

</**period.timeInterval**>

<**TimeSeries**>

<**mRID**>BASELINE\_TS\_ID</**mRID**>

<**businessType**>A13</**businessType**>

<**product**>8716867000030</**product**>

<**objectAggregation**>A03</**objectAggregation**>

<**area\_Domain.mRID** codingScheme='A01'>10YLV-1001A00074</**area\_Domain.mRID**>

<**marketParticipant.mRID** codingScheme='A01'>BSP-EIC</**marketParticipant.mRID**>

<**measure\_Unit.name**>MWH</**measure\_Unit.name**>

<**marketEvaluationPoint.mRID** codingScheme='A01'>ReU\_EIC</**marketEvaluationPoint.mRID**>

<**Period**>

<**timeInterval**>

<**start**>2024-05-10T17:00Z</**start**>

<**end**>2024-05-10T18:00Z</**end**>

</**timeInterval**>

<**resolution**>PT15M</**resolution**>

<**Point**>

<**position**>1</**position**>

<**in\_Quantity.quantity**>3</**in\_Quantity.quantity**>

<**out\_Quantity.quantity**>0</**out\_Quantity.quantity**>

</**Point**>

<**Point**>

<**position**>2</**position**>

<**in\_Quantity.quantity**>2</**in\_Quantity.quantity**>

<**out\_Quantity.quantity**>0</**out\_Quantity.quantity**>

</**Point**>

<**Point**>

<**position**>3</**position**>

<**in\_Quantity.quantity**>3</**in\_Quantity.quantity**>

<**out\_Quantity.quantity**>0</**out\_Quantity.quantity**>

</**Point**>

<**Point**>

<**position**>4</**position**>

<**in\_Quantity.quantity**>2</**in\_Quantity.quantity**>

<**out\_Quantity.quantity**>0</**out\_Quantity.quantity**>

</**Point**>

</**Period**>

</**TimeSeries**>

</**EnergyAccount\_MarketDocument**>

# Energy control metering data for mFRR process

Structure diagram for submission of energy control metering data for mFRR process is applicable if the control metering data is not provided in real time (to AST SCADA).

**Energy control metering data exchange schema**

A diagram of a system

Description automatically generated

**Energy control metering data structure diagram**

A diagram of a diagram

Description automatically generated

**Document element description**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Tag** | | | | | | | | **Value** | **Mandatory** | **Description** | **Conditions** |
| **Header** | | | | | | | |  |  |  |  |
| mRID | | | | | | | | (1…35 chars) | Y  E  S | Unique identification of the document for which the time series data is being supplied. | All additions, modifications, or suppressions for the time series and must use the same identification. |
| RevisionNumber | | | | | | | | (1…3 chars) | Y  E  S | Document version | Starts at 1 and increases sequentially if metering data update is necessary. |
| Type | | | | | | | | A11 | Y  E  S | The document type | A11 - Aggregated energy data report |
| DocStatus | | | | | | | | A02 | Y  E  S | The document status | A02 – Final |
| process.processType | | | | | | | | A05 | Y  E  S | The process type identifies the process to which the information flow is directed. | A05 - Metered data aggregation |
| process.classificationType | | | | | | | | A01 | Y  E  S | A type that is used to classify the document by aggregation or classification | A01 – Detail |
| sender\_MarketParticipant.mRID | | | | | | | | (1…16 chars) | Y  E  S | Identification of the party that is the owner of the document | EIC of the sender |
| sender\_MarketParticipant.marketRole.type | | | | | | | | A27 | Y  E  S | Identification of the role that is played by the sender. | A27 – resource provider |
| receiver\_MarketParticipant.mRID | | | | | | | | 10X1001A1001B54W | Y  E  S | Identification of the party who is receiving the document | AST EIC:  10X1001A1001B54W |
| receiver\_MarketParticipant.marketRole.type | | | | | | | | A04 | Y  E  S | Identification of the receiver role | A04 – System operator |
| CreatedDateTime | | | | | | | | UTC DateTime | Y  E  S | The date and time that the document was prepared for transmission by the application of the sender | The date and time must be expressed in UTC time zone and in UTC as YYYY-MM-DDTHH:MM:SSZ. |
| **period.timeInterval** | | | | | | | |  |  |  |  |
| start | | | | | | | UTC DateTime | Y  E  S | The beginning date and time of the period covered by the document. | The start and end date and time must be expressed in UTC time zone and as YYYY-MM-DDTHH:MMZ.  Period.timeInterval is one full quarter hour.  Possible values for start time:  YYYY-MM-DDTHH:00Z;  YYYY-MM-DDTHH:15Z;  YYYY-MM-DDTHH:30Z;  YYYY-MM-DDTHH:45Z. |
| end | | | | | | | UTC DateTime | Y  E  S | Ending date and time of the period covered by the document. | The start and end date and time must be expressed in UTC time zone and as YYYY-MM-DDTHH:MMZ.  Period.timeInterval is one full quarter hour.  Corresponding possible values for end time:  YYYY-MM-DDTHH:15Z;  YYYY-MM-DDTHH:30Z;  YYYY-MM-DDTHH:45Z;  YYYY-MM-DDTHH:00Z. |
|  | | **Time series** | | | | | |  |  |  |  |
|  | | | mRID | | | | | (1…35 chars) | Y  E  S | Sender’s identification of the time series instance. | This must be unique for the whole document and guarantee the non-duplication of all the attributes of the account time series class. |
|
|  | | | BusinessType | | | | | A14 | Y  E  S | The nature of the time series for which the product is handled. | A14 - Aggregated energy data |
|  | | | Product | | | | | 8716867000030 | Y  E  S | Identification of an energy product such as power, energy, reactive power, transport, capacity, etc. | 8716867000030 – Active energy |
|  | | | objectAggregation | | | | | A02 | Y  E  S | Identifies how the object is aggregated | A02 Metering point |
|  | | | area\_Domain.mRID | | | | | 10YLV-1001A00074 | Y  E  S | The area of concern for the imbalance settlement responsible that the time series addresses | Latvia EIC:  10YLV-1001A00074 |
|  | | | marketParticipant.mRID | | | | | (1…16 chars) | NO | The party of concern for the time series | In special cases when report data is concerning other market participant, EIC of that said participant should be included here.  By default, sender EIC should be used. |
|  | | | measure\_Unit.name | | | | | MWH | Y  E  S | The unit of measurement used for the quantities expressed within the time series. | Always expressed in megawatt-hours - MWH |
|  | | | marketEvaluationPoint.mRID | | | | | (1…16 chars) | NO | A point where the calculation of the energy produced or consumed is carried out. | It may be a physical point situated at an extremity of a line; a virtual point that is an agreed position between two connections or an aggregation of physical or virtual points.  Metering data:  EIC of the reserve unit (ReU). |
|  | |  | | **Period** | | | |  |  |  |  |
|  | |  | | **TimeInterval** | | | |  |  |  |  |
|  | |  | | | | start | | UTC DateTime | Y  E  S | The beginning date and time of the period being reported.  Same as Period.timeInterval | The start date and time must be expressed in UTC time zone and as YYYY-MM-DDTHH:MMZ.  Period.timeInterval is one full quarter hour.  Possible values for start time:  YYYY-MM-DDTHH:00Z;  YYYY-MM-DDTHH:15Z;  YYYY-MM-DDTHH:30Z;  YYYY-MM-DDTHH:45Z. |
|  | |  | | | | end | | UTC DateTime interval | Y  E  S | Ending date and time of the period being reported.  Same as Period.timeInterval | The end date and time must be expressed in UTC time zone and as YYYY-MM-DDTHH:MMZ.  Period.timeInterval is one full quarter hour.  Corresponding possible values for end time:  YYYY-MM-DDTHH:15Z;  YYYY-MM-DDTHH:30Z;  YYYY-MM-DDTHH:45Z;  YYYY-MM-DDTHH:00Z. |
|  | |  | | Resolution | | | | PT1M | Y  E  S | The resolution defining the number of periods that the time interval is divided. | PnYnMnDTnHnMnS:  Where nY expresses a number of years, nM a number of months, nD a number of days. The letter “T” separates the date expression from the time expression and after it nH identifies a number of hours, nM a number of minutes and nS a number of seconds. |
|  | |  | |  | **Point** | | |  |  |  |  |
|  | |  | |  | Position | | | (1…6 chars) | Y  E  S | This information provides the relative position of a period. | The relative position must be expressed as a numeric integer value beginning with 1.  All leading zeros must be suppressed. |
|  | |  | |  | in\_Quantity.quantity | | | (1…17 numeric chars) | Y  E  S | The quantity of the product that enters the area. | The quantity of the product that enters the control area (energy provided to the grid) for the position within the account interval in question.  Six decimal positions should be included. |
|  | |  | |  | out\_Quantity.quantity | | | (1…17 numeric chars) | Y  E  S | The quantity of the product that leaves the area. | The quantity of the product that leaves the control area (energy consumed from the grid) for the position within the account interval in question.  Six decimal positions should be included. |
|  | |  | |  | | | **Reason** |  |  |  |  |
|  | |  | |  | | | code | A01  A48 | Y  E  S | The coded motivation of an act. | Metering data:  A01 - Message fully accepted  A48 – Modification reason  After the deadline Metering data modification (with code A48) is allowed only in case of communication or technical problems. |
|  | |  | |  | | | text | (1…512 chars) | NO | Additional textual information providing an additional explanation of the reason code. | If ReasonCode A48: reason of the modification. |

## Energy control metering data example

Note that energy control metering data document can be submitted for the whole day.

<**EnergyAccount\_MarketDocument** xmlns='urn:iec62325.351:tc57wg16:451-4:energyaccountdocument:4:0'>

<**mRID**>ENCONTRL\_DOC\_ID</**mRID**>

<**revisionNumber**>1</**revisionNumber**>

<**type**>A11</**type**>

<**docStatus**>

<**value**>A02</**value**>

</**docStatus**>

<**process.processType**>A05</**process.processType**>

<**process.classificationType**>A01</**process.classificationType**>

<**sender\_MarketParticipant.mRID** codingScheme='A01'>BSP-EIC</**sender\_MarketParticipant.mRID**>

<**sender\_MarketParticipant.marketRole.type**>A27</**sender\_MarketParticipant.marketRole.type**>

<**receiver\_MarketParticipant.mRID** codingScheme='A01'>10X1001A1001B54W</**receiver\_MarketParticipant.mRID**>

<**receiver\_MarketParticipant.marketRole.type**>A04</**receiver\_MarketParticipant.marketRole.type**>

<**createdDateTime**>2024-05-10T17:20:32Z</**createdDateTime**>

<**period.timeInterval**>

<**start**>2024-05-10T17:00Z</**start**>

<**end**>2024-05-10T17:15Z</**end**>

</**period.timeInterval**>

<**TimeSeries**>

<**mRID**>mRID</**mRID**>

<**businessType**>A14</**businessType**>

<**product**>8716867000030</**product**>

<**objectAggregation**>A02</**objectAggregation**>

<**area\_Domain.mRID** codingScheme='A01'>10YLV-1001A00074</**area\_Domain.mRID**>

<**marketParticipant.mRID** codingScheme='A01'>BSP-EIC</**marketParticipant.mRID**>

<**measure\_Unit.name**>MWH</**measure\_Unit.name**>

<**marketEvaluationPoint.mRID** codingScheme='A01'>ReU\_EIC</**marketEvaluationPoint.mRID**>

<**Period**>

<**timeInterval**>

<**start**>2024-05-10T17:00Z</**start**>

<**end**>2024-05-10T17:15Z</**end**>

</**timeInterval**>

<**resolution**>PT1M</**resolution**>

<**Point**>

<**position**>1</**position**>

<**in\_Quantity.quantity**>0.025612</**in\_Quantity.quantity**>

<**out\_Quantity.quantity**>0</**out\_Quantity.quantity**>

<**Reason**>

<**code**>A01</**code**>

</**Reason**>

</**Point**>

<**Point**>

<**position**>2</**position**>

<**in\_Quantity.quantity**>0.025612</**in\_Quantity.quantity**>

<**out\_Quantity.quantity**>0</**out\_Quantity.quantity**>

<**Reason**>

<**code**>A01</**code**>

</**Reason**>

</**Point**>

<**Point**>

<**position**>3</**position**>

<**in\_Quantity.quantity**>0.025612</**in\_Quantity.quantity**>

<**out\_Quantity.quantity**>0</**out\_Quantity.quantity**>

<**Reason**>

<**code**>A01</**code**>

</**Reason**>

</**Point**>

<**Point**>

<**position**>4</**position**>

<**in\_Quantity.quantity**>0.025612</**in\_Quantity.quantity**>

<**out\_Quantity.quantity**>0</**out\_Quantity.quantity**>

<**Reason**>

<**code**>A01</**code**>

</**Reason**>

</**Point**>

<**Point**>

<**position**>5</**position**>

<**in\_Quantity.quantity**>0.025612</**in\_Quantity.quantity**>

<**out\_Quantity.quantity**>0</**out\_Quantity.quantity**>

<**Reason**>

<**code**>A01</**code**>

</**Reason**>

</**Point**>

<**Point**>

<**position**>6</**position**>

<**in\_Quantity.quantity**>0.017253</**in\_Quantity.quantity**>

<**out\_Quantity.quantity**>0</**out\_Quantity.quantity**>

<**Reason**>

<**code**>A01</**code**>

</**Reason**>

</**Point**>

<**Point**>

<**position**>7</**position**>

<**in\_Quantity.quantity**>0.025612</**in\_Quantity.quantity**>

<**out\_Quantity.quantity**>0</**out\_Quantity.quantity**>

<**Reason**>

<**code**>A01</**code**>

</**Reason**>

</**Point**>

<**Point**>

<**position**>8</**position**>

<**in\_Quantity.quantity**>0.025612</**in\_Quantity.quantity**>

<**out\_Quantity.quantity**>0</**out\_Quantity.quantity**>

<**Reason**>

<**code**>A01</**code**>

</**Reason**>

</**Point**>

<**Point**>

<**position**>9</**position**>

<**in\_Quantity.quantity**>0.032156</**in\_Quantity.quantity**>

<**out\_Quantity.quantity**>0</**out\_Quantity.quantity**>

<**Reason**>

<**code**>A01</**code**>

</**Reason**>

</**Point**>

<**Point**>

<**position**>10</**position**>

<**in\_Quantity.quantity**>0.025612</**in\_Quantity.quantity**>

<**out\_Quantity.quantity**>0</**out\_Quantity.quantity**>

<**Reason**>

<**code**>A01</**code**>

</**Reason**>

</**Point**>

<**Point**>

<**position**>11</**position**>

<**in\_Quantity.quantity**>0.025612</**in\_Quantity.quantity**>

<**out\_Quantity.quantity**>0</**out\_Quantity.quantity**>

<**Reason**>

<**code**>A01</**code**>

</**Reason**>

</**Point**>

<**Point**>

<**position**>12</**position**>

<**in\_Quantity.quantity**>0.025612</**in\_Quantity.quantity**>

<**out\_Quantity.quantity**>0</**out\_Quantity.quantity**>

<**Reason**>

<**code**>A01</**code**>

</**Reason**>

</**Point**>

<**Point**>

<**position**>13</**position**>

<**in\_Quantity.quantity**>0.025612</**in\_Quantity.quantity**>

<**out\_Quantity.quantity**>0</**out\_Quantity.quantity**>

<**Reason**>

<**code**>A01</**code**>

</**Reason**>

</**Point**>

<**Point**>

<**position**>14</**position**>

<**in\_Quantity.quantity**>0.025612</**in\_Quantity.quantity**>

<**out\_Quantity.quantity**>0</**out\_Quantity.quantity**>

<**Reason**>

<**code**>A01</**code**>

</**Reason**>

</**Point**>

<**Point**>

<**position**>15</**position**>

<**in\_Quantity.quantity**>0.025612</**in\_Quantity.quantity**>

<**out\_Quantity.quantity**>0</**out\_Quantity.quantity**>

<**Reason**>

<**code**>A01</**code**>

</**Reason**>

</**Point**>

</**Period**>

</**TimeSeries**>

</**EnergyAccount\_MarketDocument**>

# mFRR and aFRR document biding example

This section provides detailed example about bid submission and the options of editing the bid or withdrawing it from tender.

The BSPs can provide several bids in one document, that would be realized as several Bid time series in one Bid document covering period of all Bid time series or as separate bids in separate documents.

For process with MARI BSPs can either provide bids with 15 minutes resolution with 1 position in period TimeInterval for each 15 minutes or, for example, with 15 minutes resolution with 4 positions in period TimeInterval for one hour.

To edit the submitted bids the higher version of the same document can be used, but in case the time period does not match the original document or there is a need for example to update only one of Bid Time Series, add new Bid Time series, then new document can be used.

The initial state of the example:

* BSP submits Bid document containing three separate bids – represented as 3 Bid Time series.



* In the BMS the local bid list is created, containing all currently actual bids:



* The BSP submits new document, providing only one of the time series mentioned before and a new one:



In TS\_BID24 additional 3 positions are provided, but the positions for last two hours are included in document period but not in the time series periods, meaning that these time series positions should be removed.

TS\_BID26 previously was not included in document, meaning that this is a new bid added to the existing ones.

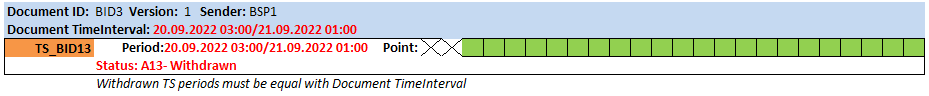
The changes to the bid time series should be done considering the GCT. If the GCT for the first (or more) position in the original time series has already passed, then the Time Series should not include this period at all. Otherwise the whole document will be rejected by BMS.

* In the result the local bid list is updated. Creating the following list:



Where TS\_BID13 and TS\_BID25 have remained unchanged, TS\_BID26 have been added and in TS\_BID24 the newly added positions are added, but last two -removed.

* The BSP deletes one of the bids completely by submitting the Bid time series, containing the original data, but applying the status – A13 – withdrawn.





* In the result the local bid list in system is changed accordingly:



# mFRR document examples (process for MARI)

## Bid document example

<?xml version='1.0' encoding='UTF-8' standalone='yes'?>

<**ReserveBid\_MarketDocument** xmlns='urn:iec62325.351:tc57wg16:451-7:reservebiddocument:7:3'>

<**mRID**>BID-doc-ID</**mRID**>

<**revisionNumber**>1</**revisionNumber**>

<**type**>A37</**type**>

<**process.processType**>A47</**process.processType**>

<**sender\_MarketParticipant.mRID** codingScheme='A01'>BSP-EIC</**sender\_MarketParticipant.mRID**>

<**sender\_MarketParticipant.marketRole.type**>A27</**sender\_MarketParticipant.marketRole.type**>

<**receiver\_MarketParticipant.mRID** codingScheme='A01'>10X1001A1001B54W</**receiver\_MarketParticipant.mRID**>

<**receiver\_MarketParticipant.marketRole.type**>A04</**receiver\_MarketParticipant.marketRole.type**>

<**createdDateTime**>2022-12-06T09:04:00Z</**createdDateTime**>

<**reserveBid\_Period.timeInterval**>

<**start**>2022-12-06T10:00Z</**start**>

<**end**>2022-12-06T12:00Z</**end**>

</**reserveBid\_Period.timeInterval**>

<**domain.mRID** codingScheme='A01'>10YLV-1001A00074</**domain.mRID**>

<**subject\_MarketParticipant.mRID** codingScheme='A01'>BSP-EIC</**subject\_MarketParticipant.mRID**>

<**subject\_MarketParticipant.marketRole.type**>A27</**subject\_MarketParticipant.marketRole.type**>

<**Bid\_TimeSeries**>

<**mRID**>TS\_BID\_ID\_1</**mRID**>

<**auction.mRID**>AUCTION\_mFRR</**auction.mRID**>

<**businessType**>B74</**businessType**>

<**acquiring\_Domain.mRID** codingScheme='A01'>10Y1001C--00085O</**acquiring\_Domain.mRID**>

<**connecting\_Domain.mRID** codingScheme='A01'>10YLV-1001A00074</**connecting\_Domain.mRID**>

<**provider\_MarketParticipant.mRID** codingScheme='A01'>BSP-EIC</**provider\_MarketParticipant.mRID**>

<**quantity\_Measurement\_Unit.name**>MAW</**quantity\_Measurement\_Unit.name**>

<**currency\_Unit.name**>EUR</**currency\_Unit.name**>

<**divisible**>A01</**divisible**>

<**status**>

<**value**>A06</**value**>

</**status**>

<**registeredResource.mRID** codingScheme='A01'>ReU-EIC</**registeredResource.mRID**>

<**flowDirection.direction**>A02</**flowDirection.direction**>

<**energyPrice\_Measurement\_Unit.name**>MWH</**energyPrice\_Measurement\_Unit.name**>

<**marketAgreement.type**>A01</**marketAgreement.type**>

<**standard\_MarketProduct.marketProductType**>A07</**standard\_MarketProduct.marketProductType**>

<**Period**>

<**timeInterval**>

<**start**>2022-12-06T10:00Z</**start**>

<**end**>2022-12-06T11:00Z</**end**>

</**timeInterval**>

<**resolution**>PT15M</**resolution**>

**<Point>**

<**position**>1</**position**>

<**quantity.quantity**>10.0</**quantity.quantity**>

<**minimum\_Quantity.quantity**>1.0</**minimum\_Quantity.quantity**>

<**energy\_Price.amount**>0.00</**energy\_Price.amount**>

</**Point**>

<**Point**>

<**position**>2</**position**>

<**quantity.quantity**>10.00</**quantity.quantity**>

<**minimum\_Quantity.quantity**>1.0</**minimum\_Quantity.quantity**>

<**energy\_Price.amount**>00.00</**energy\_Price.amount**>

</**Point**>

<**Point**>

<**position**>3</**position**>

<**quantity.quantity**>20.00</**quantity.quantity**>

<**minimum\_Quantity.quantity**>1.0</**minimum\_Quantity.quantity**>

<**energy\_Price.amount**>00.00</**energy\_Price.amount**>

</**Point**>

<**Point**>

<**position**>4</**position**>

<**quantity.quantity**>30.00</**quantity.quantity**>

<**minimum\_Quantity.quantity**>1.0</**minimum\_Quantity.quantity**>

<**energy\_Price.amount**>00.00</**energy\_Price.amount**>

</**Point**>

</**Period**>

</**Bid\_TimeSeries**>

<**Bid\_TimeSeries**>

<**mRID**>TS\_BID\_ID\_2</**mRID**>

<**auction.mRID**>AUCTION\_mFRR</**auction.mRID**>

<**businessType**>B74</**businessType**>

<**acquiring\_Domain.mRID** codingScheme='A01'>10Y1001C--00085O</**acquiring\_Domain.mRID**>

<**connecting\_Domain.mRID** codingScheme='A01'>10YLV-1001A00074</**connecting\_Domain.mRID**>

<**provider\_MarketParticipant.mRID** codingScheme='A01'>BSP-EIC</**provider\_MarketParticipant.mRID**>

<**quantity\_Measurement\_Unit.name**>MAW</**quantity\_Measurement\_Unit.name**>

<**currency\_Unit.name**>EUR</**currency\_Unit.name**>

<**divisible**>A02</**divisible**>

<**status**>

<**value**>A06</**value**>

</**status**>

<**registeredResource.mRID** codingScheme='A01'>ReU-EIC</**registeredResource.mRID**>

<**flowDirection.direction**>A02</**flowDirection.direction**>

<**energyPrice\_Measurement\_Unit.name**>MWH<**/energyPrice\_Measurement\_Unit.name**>

<**marketAgreement.type**>A01</**marketAgreement.type**>

<**standard\_MarketProduct.marketProductType**>A07</**standard\_MarketProduct.marketProductType**>

<**Period**>

<**timeInterval**>

<**start**>2022-12-06T11:00Z</**start**>

<**end**>2022-12-06T11:15Z</**end**>

</**timeInterval**>

<**resolution**>PT15M</**resolution**>

**<Point>**

<**position**>1</**position**>

<**quantity.quantity**>20.0</**quantity.quantity**>

<**minimum\_Quantity.quantity**>20.0</**minimum\_Quantity.quantity**>

<**energy\_Price.amount**>0.00</**energy\_Price.amount**>

</**Point**>

</**Period**>

</**Bid\_TimeSeries**>

<**Bid\_TimeSeries**>

<**mRID**>TS\_BID\_ID\_3</**mRID**>

<**auction.mRID**>AUCTION\_mFRR</**auction.mRID**>

<**businessType**>B74</**businessType**>

<**acquiring\_Domain.mRID** codingScheme='A01'>10Y1001C--00085O</**acquiring\_Domain.mRID**>

<**connecting\_Domain.mRID** codingScheme='A01'>10YLV-1001A00074</**connecting\_Domain.mRID**>

<**provider\_MarketParticipant.mRID** codingScheme='A01'>BSP-EIC</**provider\_MarketParticipant.mRID**>

<**quantity\_Measurement\_Unit.name**>MAW</**quantity\_Measurement\_Unit.name**>

<**currency\_Unit.name**>EUR</**currency\_Unit.name**>

<**divisible**>A01</**divisible**>

<**status**>

<**value**>A06</**value**>

</**status**>

<**registeredResource.mRID** codingScheme='A01'>ReU-EIC</**registeredResource.mRID**>

<**flowDirection.direction**>A02</**flowDirection.direction**>

<**energyPrice\_Measurement\_Unit.name**>MWH<**/energyPrice\_Measurement\_Unit.name**>

<**marketAgreement.type**>A01</**marketAgreement.type**>

<**standard\_MarketProduct.marketProductType**>A07</**standard\_MarketProduct.marketProductType**>

<**Period**>

<**timeInterval**>

<**start**>2022-12-06T11:15Z</**start**>

<**end**>2022-12-06T11:30Z</**end**>

</**timeInterval**>

<**resolution**>PT15M</**resolution**>

<**Point**>

<**position**>1</**position**>

<**quantity.quantity**>30.00</**quantity.quantity**>

<**minimum\_Quantity.quantity**>1.0</**minimum\_Quantity.quantity**>

<**energy\_Price.amount**>00.00</**energy\_Price.amount**>

</**Point**>

</**Period**>

</**Bid\_TimeSeries**>

<**Bid\_TimeSeries**>

<**mRID**>TS\_BID\_ID\_4</**mRID**>

<**auction.mRID**>AUCTION\_mFRR</**auction.mRID**>

<**businessType**>B74</**businessType**>

<**acquiring\_Domain.mRID** codingScheme='A01'>10Y1001C--00085O</**acquiring\_Domain.mRID**>

<**connecting\_Domain.mRID** codingScheme='A01'>10YLV-1001A00074</**connecting\_Domain.mRID**>

<**provider\_MarketParticipant.mRID** codingScheme='A01'>BSP-EIC</**provider\_MarketParticipant.mRID**>

<**quantity\_Measurement\_Unit.name**>MAW</**quantity\_Measurement\_Unit.name**>

<**currency\_Unit.name**>EUR</**currency\_Unit.name**>

<**divisible**>A02</**divisible**>

<**status**>

<**value**>A06</**value**>

</**status**>

<**registeredResource.mRID** codingScheme='A01'>ReU-EIC</**registeredResource.mRID**>

<**flowDirection.direction**>A02</**flowDirection.direction**>

<**energyPrice\_Measurement\_Unit.name**>MWH<**/energyPrice\_Measurement\_Unit.name**>

<**marketAgreement.type**>A01</**marketAgreement.type**>

<**standard\_MarketProduct.marketProductType**>A05</**standard\_MarketProduct.marketProductType**>

<**Period**>

<**timeInterval**>

<**start**>2022-12-06T11:30Z</**start**>

<**end**>2022-12-06T11:45Z</**end**>

</**timeInterval**>

<**resolution**>PT15M</**resolution**>

<**Point**>

<**position**>1</**position**>

<**quantity.quantity**>44.00</**quantity.quantity**>

<**energy\_Price.amount**>00.00</**energy\_Price.amount**>

</**Point**>

</**Period**>

</**Bid\_TimeSeries**>

<**Bid\_TimeSeries**>

<**mRID**>TS\_BID\_ID\_5</**mRID**>

<**auction.mRID**>AUCTION\_mFRR</**auction.mRID**>

<**businessType**>B74</**businessType**>

<**acquiring\_Domain.mRID** codingScheme='A01'>10Y1001C--00085O</**acquiring\_Domain.mRID**>

<**connecting\_Domain.mRID** codingScheme='A01'>10YLV-1001A00074</**connecting\_Domain.mRID**>

<**provider\_MarketParticipant.mRID** codingScheme='A01'>BSP-EIC</**provider\_MarketParticipant.mRID**>

<**quantity\_Measurement\_Unit.name**>MAW</**quantity\_Measurement\_Unit.name**>

<**currency\_Unit.name**>EUR</**currency\_Unit.name**>

<**divisible**>A01</**divisible**>

<**status**>

<**value**>A06</**value**>

</**status**>

<**registeredResource.mRID** codingScheme='A01'>ReU-EIC</**registeredResource.mRID**>

<**flowDirection.direction**>A02</**flowDirection.direction**>

<**energyPrice\_Measurement\_Unit.name**>MWH<**/energyPrice\_Measurement\_Unit.name**>

<**marketAgreement.type**>A01</**marketAgreement.type**>

<**standard\_MarketProduct.marketProductType**>A05</**standard\_MarketProduct.marketProductType**>

<**Period**>

<**timeInterval**>

<**start**>2022-12-06T11:45Z</**start**>

<**end**>2022-12-06T12:00Z</**end**>

</**timeInterval**>

<**resolution**>PT15M</**resolution**>

<**Point**>

<**position**>1</**position**>

<**quantity.quantity**>30.00</**quantity.quantity**>

<**minimum\_Quantity.quantity**>1.0</**minimum\_Quantity.quantity**>

<**energy\_Price.amount**>00.00</**energy\_Price.amount**>

</**Point**>

</**Period**>

</**Bid\_TimeSeries**>

</**ReserveBid\_MarketDocument**>

## Bid document update example

<?xml version='1.0' encoding='UTF-8' standalone='yes'?>

<**ReserveBid\_MarketDocument** xmlns='urn:iec62325.351:tc57wg16:451-7:reservebiddocument:7:3'>

<**mRID**>BID-doc-ID</**mRID**>

<**revisionNumber**>1</**revisionNumber**>

<**type**>Z42</**type**>

<**process.processType**>A47</**process.processType**>

<**sender\_MarketParticipant.mRID** codingScheme='A01'>BSP-EIC</**sender\_MarketParticipant.mRID**>

<**sender\_MarketParticipant.marketRole.type**>A27</**sender\_MarketParticipant.marketRole.type**>

<**receiver\_MarketParticipant.mRID** codingScheme='A01'>10X1001A1001B54W</**receiver\_MarketParticipant.mRID**>

<**receiver\_MarketParticipant.marketRole.type**>A04</**receiver\_MarketParticipant.marketRole.type**>

<**createdDateTime**>2022-12-06T10:44:00Z</**createdDateTime**>

<**reserveBid\_Period.timeInterval**>

<**start**>2022-12-06T11:00Z</**start**>

<**end**>2022-12-06T11:15Z</**end**>

</**reserveBid\_Period.timeInterval**>

<**domain.mRID** codingScheme='A01'>10YLV-1001A00074</**domain.mRID**>

<**subject\_MarketParticipant.mRID** codingScheme='A01'>BSP-EIC</**subject\_MarketParticipant.mRID**>

<**subject\_MarketParticipant.marketRole.type**>A27</**subject\_MarketParticipant.marketRole.type**>

<**Bid\_TimeSeries**>

<**mRID**> TS\_BID\_ID\_2</**mRID**>

<**auction.mRID**>AUCTION\_mFRR</**auction.mRID**>

<**businessType**>C40</**businessType**>

<**acquiring\_Domain.mRID** codingScheme='A01'>10Y1001C--00085O</**acquiring\_Domain.mRID**>

<**connecting\_Domain.mRID** codingScheme='A01'>10YLV-1001A00074</**connecting\_Domain.mRID**>

<**provider\_MarketParticipant.mRID** codingScheme='A01'>BSP-EIC</**provider\_MarketParticipant.mRID**>

<**quantity\_Measurement\_Unit.name**>MAW</**quantity\_Measurement\_Unit.name**>

<**currency\_Unit.name**>EUR</**currency\_Unit.name**>

<**divisible**>A02</**divisible**>

<**status**>

<**value**>A06</**value**>

</**status**>

<**registeredResource.mRID** codingScheme='A01'>ReU-EIC</**registeredResource.mRID**>

<**flowDirection.direction**>A02</**flowDirection.direction**>

<**energyPrice\_Measurement\_Unit.name**>MWH</**energyPrice\_Measurement\_Unit.name**>

<**marketAgreement.type**>A01</**marketAgreement.type**>

<**standard\_MarketProduct.marketProductType**>A07</**standard\_MarketProduct.marketProductType**>

<**Period**>

<**timeInterval**>

<**start**>2022-12-06T11:00Z</**start**>

<**end**>2022-12-06T11:15Z</**end**>

</**timeInterval**>

<**resolution**>PT15M</**resolution**>

**<Point>**

<**position**>1</**position**>

<**quantity.quantity**>20.0</**quantity.quantity**>

<**minimum\_Quantity.quantity**>20.0</**minimum\_Quantity.quantity**>

<**energy\_Price.amount**>0.00</**energy\_Price.amount**>

</**Point**>

</**Period**>

<Reason>

<code>B16</code>

</Reason>

</**Bid\_TimeSeries**>

</**ReserveBid\_MarketDocument**>

## Activation order and activation order response document example

**Activation order:**

<**Activation\_MarketDocument** xmlns="urn:iec62325.351:tc57wg16:451-7:activationdocument:6:3">

<**mRID**>AST\_AO\_20221206\_1</**mRID**>

<**revisionNumber**>1</**revisionNumber**>

<**type**>A40</type>

<**process.processType**>A60</**process**.**processType**>

<**sender\_MarketParticipant.mRID** codingScheme="A01">10X1001A1001B54W</**sender**\_**MarketParticipant**.**mRID**>

<**sender\_MarketParticipant.marketRole.type**>A04</**sender**\_**MarketParticipant**.**marketRole**.**type**>

<**receiver\_MarketParticipant.mRID** codingScheme="A01">BSP-EIC</**receiver\_MarketParticipant.mRID**>

<**receiver\_MarketParticipant.marketRole.type**>A27</**receiver\_MarketParticipant.marketRole.type**>

<**createdDateTime**>2022-12-06T10:52:30Z</**createdDateTime**>

<**activation\_Time\_Period.timeInterval**>

<start>2022-12-06T10:00Z </start>

<end>2022-12-06T10:15Z </end>

</**activation\_Time\_Period.timeInterval**>

<**domain.mRID** codingScheme="A01">10YLV-1001A00074</**domain.mRID**>

<**TimeSeries**>

<**mRID**> TS\_BID\_ID\_1</**mRID**>

<**resourceProvider\_MarketParticipant.mRID** codingScheme="A01">BSP-EIC</**resourceProvider\_MarketParticipant.mRID**>

<**businessType**>Z54</**businessType**>

<**acquiring\_Domain.mRID** codingScheme="A01">10Y1001C--00085O</**acquiring\_Domain.mRID**>

<**connecting\_Domain.mRID** codingScheme="A01">10YLV-1001A00074</**connecting\_Domain.mRID**>

<**measurement\_Unit.name**>MAW</**measurement\_Unit.name**>

<**flowDirection.direction**>A02</**flowDirection.direction**>

<**energyPrice\_Measurement\_Unit.name**>MWH<**/energyPrice\_Measurement\_Unit.name**> <**marketObjectStatus.status**>A10</**marketObjectStatus.status**>

<**registeredResource.mRID** codingScheme="A01">ReU-EIC</**registeredResource**.**mRID**>

<**Period**>

<**timeInterval**>

<**start**>2022-12-06T10:00Z</**start**>

<**end**>2022-12-06T10:15Z</**end**>

</**timeInterval**>

<**resolution**>PT15M</**resolution**>

<**Point**>

<**position**>1</**position**>

<**quantity**>10</**quantity**>

</**Point**>

</**Period**>

<**Reason**>

<**code**>A37</**code**>

</**Reason**>

</**TimeSeries**></**Activation**\_**MarketDocument**>

**Activation Order Response:**

<**Activation\_MarketDocument** xmlns="urn:iec62325.351:tc57wg16:451-7:activationdocument:6:3">

<**mRID**>AOR-Document-ID</**mRID**>

<**revisionNumber**>1</**revisionNumber**>

<**type**>A41</type>

<**process.processType**>A60</**process**.**processType**>

<**sender\_MarketParticipant.mRID** codingScheme="A01">BSP-EIC</**sender**\_**MarketParticipant**.**mRID**>

<**sender\_MarketParticipant.marketRole.type**>A27</**sender**\_**MarketParticipant**.**marketRole**.**type**>

<**receiver\_MarketParticipant.mRID** codingScheme="A01">10X1001A1001B54W </**receiver\_MarketParticipant.mRID**>

<**receiver\_MarketParticipant.marketRole.type**>A04</**receiver\_MarketParticipant.marketRole.type**>

<**createdDateTime**>2022-12-06T10:53:00Z</**createdDateTime**>

<**activation\_Time\_Period.timeInterval**>

<start>2022-12-06T10:00Z</start>

<end>2022-12-06T10:15Z</end>

</**activation\_Time\_Period.timeInterval**>

<**domain.mRID** codingScheme="A01">10YLV-1001A00074</**domain.mRID**>

<**order\_MarketDocument.mRID**>AST\_AO\_20221206\_1</ **order\_MarketDocument.mRID**>

<**order\_MarketDocument.revisionNumber**>1</ **order\_MarketDocument.revisionNumber**>

<**TimeSeries**>

<**mRID**> TS\_BID\_ID\_1</**mRID**>

<**resourceProvider\_MarketParticipant.mRID** codingScheme="A01">BSP-EIC</**resourceProvider\_MarketParticipant.mRID**>

<**businessType**>Z54</**businessType**>

<**acquiring\_Domain.mRID** codingScheme="A01">10Y1001C--00085O</**acquiring\_Domain.mRID**>

<**connecting\_Domain.mRID** codingScheme="A01">10YLV-1001A00074</**connecting\_Domain.mRID**>

<**measurement\_Unit.name**>MAW</**measurement\_Unit.name**>

<**flowDirection.direction**>A02</**flowDirection.direction**>

<**energyPrice\_Measurement\_Unit.name**>MWH<**/energyPrice\_Measurement\_Unit.name**>

<**marketObjectStatus.status**>A07</**marketObjectStatus.status**>

<**registeredResource.mRID** codingScheme="A01">ReU-EIC</**registeredResource**.**mRID**>

<**Period**>

<**timeInterval**>

<**start**>2022-12-06T10:00Z</**start**>

<**end**>2022-12-06T10:15Z</**end**>

</**timeInterval**>

<**resolution**>PT15M</**resolution**>

<**Point**>

<**position**>1</**position**>

<**quantity**>10</**quantity**>

</**Point**>

</**Period**>

</**TimeSeries**>

</**Activation**\_**MarketDocument**>

## Acknowledgement document example

<**Acknowledgement\_MarketDocument** xmlns='urn:iec62325.351:tc57wg16:451-1:acknowledgementdocument:8:1'>

<**mRID**>ACKdocument-ID</**mRID**>

<**createdDateTime**>2022-12-06T09:52:45Z</**createdDateTime**>

<**sender\_MarketParticipant.mRID** codingScheme='A01'>BSP-EIC</**sender\_MarketParticipant.mRID>**

<**sender\_MarketParticipant.marketRole.type**>A27</**sender\_MarketParticipant.marketRole.type**>

<**receiver\_MarketParticipant.mRID** codingScheme='A01'>10X1001A1001B54W</**receiver\_MarketParticipant.mRID**>

<**receiver\_MarketParticipant.marketRole.type**>A04</**receiver\_MarketParticipant.marketRole.type**>

<**received\_MarketDocument.mRID**>AST\_AO\_20221206\_1</**received\_MarketDocument.mRID**>

<**received\_MarketDocument.revisionNumber**>1</**received\_MarketDocument.revisionNumber**>

<**received\_MarketDocument.type**>A40</**received\_MarketDocument.type**>

<**received\_MarketDocument.process.processType**>A60</**received\_MarketDocument.process.processType**>

<**received\_MarketDocument.createdDateTime**>2022-12-06T09:52:30Z</**received\_MarketDocument.createdDateTime**>

<**Reason**>

<**code**>A01</**code**>

<**text**>Message fully accepted</**text**>

</**Reason**>

</**Acknowledgement\_MarketDocument**>

## Confirmation market document example

<**Confirmation\_MarketDocument xmlns**='urn:iec62325.351:tc57wg16:451-2-confirmation:5:3'>

<**mRID**>CONFdocument-ID</**mRID**>

<**type**>A18</**type**>

<**createdDateTime**>2022-12-06T10:48:00Z</**createdDateTime**>

<**sender\_MarketParticipant.mRID codingScheme**="A01">10X1001A1001B54W</**sender\_MarketParticipant.mRID**>

<**sender\_MarketParticipant.marketRole.type**>A04</**sender\_MarketParticipant.marketRole.type**>

<**receiver\_MarketParticipant.mRID** codingScheme="A01">BSP-EIC </**receiver\_MarketParticipant.mRID**>

<**receiver\_MarketParticipant.marketRole.type**>A27</**receiver\_MarketParticipant.marketRole.type**>

<**schedule\_Period.timeInterval**>

<**start**>2022-12-06T11:00Z</**start**>

<**end**>2022-12-06T11:15Z</**end**>

<**/schedule\_Period.timeInterval**>

<**confirmed\_MarketDocument.mRID**>Bid\_Update\_mRID<**/confirmed\_MarketDocument.mRID**>

<**confirmed\_MarketDocument.revisionNumber**>1<**/confirmed\_MarketDocument.revisionNumber**>

<**domain.mRID codingScheme**="A01">10Y1001C--00085O<**/domain.mRID**>

<**process.processType**>A47<**/process.processType**>

<**Reason**>

<**code**>B53<**/code**>

<**/Reason**>

<**Confirmed\_TimeSeries**>

<**mRID**>TS\_BID\_ID\_2<**/mRID**>

<**version**>1<**/version**>

<**businessType**>B74<**/businessType**>

<**product**>8716867000016<**/product**>

<**objectAggregation**>A04<**/objectAggregation**>

<**measurement\_Unit.name**>MAW<**/measurement\_Unit.name**>

<**Reason**>

<**code**>A86<**/code**>

<**/Reason**>

<**/Confirmed\_TimeSeries**>

<**/Confirmation\_MarketDocument**>

## Bid linking and complex bids examples

**Technical linking with simple bids**

<?xml version='1.0' encoding='UTF-8' standalone='yes'?>

<**ReserveBid\_MarketDocument** xmlns='urn:iec62325.351:tc57wg16:451-7:reservebiddocument:7:3'>

<**mRID**>BID-doc-ID</**mRID**>

<**revisionNumber**>1</**revisionNumber**>

<**type**>A37</**type**>

<**process.processType**>A47</**process.processType**>

<**sender\_MarketParticipant.mRID** codingScheme='A01'>BSP-EIC</**sender\_MarketParticipant.mRID**>

<**sender\_MarketParticipant.marketRole.type**>A27</**sender\_MarketParticipant.marketRole.type**>

<**receiver\_MarketParticipant.mRID** codingScheme='A01'>10X1001A1001B54W</**receiver\_MarketParticipant.mRID**>

<**receiver\_MarketParticipant.marketRole.type**>A04</**receiver\_MarketParticipant.marketRole.type**>

<**createdDateTime**>2022-12-06T08:44:00Z</**createdDateTime**>

<**reserveBid\_Period.timeInterval**>

<**start**>2022-12-06T10:00Z</**start**>

<**end**>2022-12-06T10:30Z</**end**>

</**reserveBid\_Period.timeInterval**>

<**domain.mRID** codingScheme='A01'>10YLV-1001A00074</**domain.mRID**>

<**subject\_MarketParticipant.mRID** codingScheme='A01'> BSP-EIC</**subject\_MarketParticipant.mRID**>

<**subject\_MarketParticipant.marketRole.type**>A27</**subject\_MarketParticipant.marketRole.type**>

<**Bid\_TimeSeries**>

<**mRID**>BID\_ID\_1</**mRID**> //MTU-1

<**auction.mRID**>AUCTION\_mFRR</**auction.mRID**>

<**businessType**>B74</**businessType**>

<**acquiring\_Domain.mRID** codingScheme='A01'>10Y1001C--00085O</**acquiring\_Domain.mRID**>

<**connecting\_Domain.mRID** codingScheme='A01'>10YLV-1001A00074</**connecting\_Domain.mRID**>

<**provider\_MarketParticipant.mRID** codingScheme='A01'>BSP-EIC</**provider\_MarketParticipant.mRID**>

<**quantity\_Measurement\_Unit.name**>MAW</**quantity\_Measurement\_Unit.name**>

<**currency\_Unit.name**>EUR</**currency\_Unit.name**>

<**divisible**>A01</**divisible**>

<**linkedBidsIdentification**>PP</**linkedBidsIdentification**>

<**status**>

<**value**>A06</**value**>

</**status**>

<**registeredResource.mRID** codingScheme='A01'>ReU-EIC</**registeredResource.mRID**>

<**flowDirection.direction**>A01</**flowDirection.direction**>

<**energyPrice\_Measurement\_Unit.name**>MWH<**/energyPrice\_Measurement\_Unit.name**>

<**marketAgreement.type**>A01</**marketAgreement.type**><**standard\_MarketProduct.marketProductType**>A07</**standard\_MarketProduct.marketProductType**>

<**Period**>

<**timeInterval**>

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<**end**>2022-12-06T10:15Z</**end**>

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<**resolution**>PT15M</**resolution**>

**<Point>**

<**position**>1</**position**>

<**quantity.quantity**>20.0</**quantity.quantity**>

<**minimum\_Quantity.quantity**>1.0</**minimum\_Quantity.quantity**>

<**energy\_Price.amount**>**3.00**</**energy\_Price.amount**>

</**Point**>

</**Period**>

</**Bid\_TimeSeries**>

<**Bid\_TimeSeries**>

<**mRID**>BID\_ID\_2</**mRID**> //MTU0

<**auction.mRID**>AUCTION\_mFRR</**auction.mRID**>

<**businessType**>B74</**businessType**>

<**acquiring\_Domain.mRID** codingScheme='A01'>10Y1001C--00085O</**acquiring\_Domain.mRID**>

<**connecting\_Domain.mRID** codingScheme='A01'>10YLV-1001A00074</**connecting\_Domain.mRID**>

<**provider\_MarketParticipant.mRID** codingScheme='A01'>BSP-EIC</**provider\_MarketParticipant.mRID**>

<**quantity\_Measurement\_Unit.name**>MAW</**quantity\_Measurement\_Unit.name**>

<**currency\_Unit.name**>EUR</**currency\_Unit.name**>

<**divisible**>A01</**divisible**>

<**linkedBidsIdentification**>PP</**linkedBidsIdentification**>

<**status**>

<**value**>A06</**value**>

</**status**>

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<**flowDirection.direction**>A01</**flowDirection.direction**>

<**energyPrice\_Measurement\_Unit.name**>MWH<**/energyPrice\_Measurement\_Unit.name**><**marketAgreement.type**>A01</**marketAgreement.type**><**standard\_MarketProduct.marketProductType**>A07</**standard\_MarketProduct.marketProductType**>

<**Period**>

<**timeInterval**>

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</**timeInterval**>

<**resolution**>PT15M</**resolution**>

**<Point>**

<**position**>1</**position**>

<**quantity.quantity**>30.0</**quantity.quantity**>

<**minimum\_Quantity.quantity**>10.0</**minimum\_Quantity.quantity**>

<**energy\_Price.amount**>**6.00**</**energy\_Price.amount**>

</**Point**>

</**Period**>

</**Bid\_TimeSeries**>

</**ReserveBid\_MarketDocument**>

**Technical linking with complex bids (multipart or exclusive):**

**MTU-1:**

<?xml version='1.0' encoding='UTF-8' standalone='yes'?>

<**ReserveBid\_MarketDocument** xmlns='urn:iec62325.351:tc57wg16:451-7:reservebiddocument:7:3'>

<**mRID**>BID-doc-ID</**mRID**>

<**revisionNumber**>1</**revisionNumber**>

<**type**>A37</**type**>

<**process.processType**>A47</**process.processType**>

<**sender\_MarketParticipant.mRID** codingScheme='A01'>BSP-EIC</**sender\_MarketParticipant.mRID**>

<**sender\_MarketParticipant.marketRole.type**>A27</**sender\_MarketParticipant.marketRole.type**>

<**receiver\_MarketParticipant.mRID** codingScheme='A01'>10X1001A1001B54W</**receiver\_MarketParticipant.mRID**>

<**receiver\_MarketParticipant.marketRole.type**>A04</**receiver\_MarketParticipant.marketRole.type**>

<**createdDateTime**>2022-12-06T08:44:00Z</**createdDateTime**>

<**reserveBid\_Period.timeInterval**>

<**start**>2022-12-06T10:00Z</**start**>

<**end**>2022-12-06T10:15Z</**end**>

</**reserveBid\_Period.timeInterval**>

<**domain.mRID** codingScheme='A01'>10YLV-1001A00074</**domain.mRID**>

<**subject\_MarketParticipant.mRID** codingScheme='A01'> BSP-EIC </**subject\_MarketParticipant.mRID**>

<**subject\_MarketParticipant.marketRole.type**>A27</**subject\_MarketParticipant.marketRole.type**>

<**Bid\_TimeSeries**>

<**mRID**>BID\_ID\_1</**mRID**>

<**auction.mRID**>AUCTION\_mFRR</**auction.mRID**>

<**businessType**>B74</**businessType**>

<**acquiring\_Domain.mRID** codingScheme='A01'>10Y1001C--00085O</**acquiring\_Domain.mRID**>

<**connecting\_Domain.mRID** codingScheme='A01'>10YLV-1001A00074</**connecting\_Domain.mRID**>

<**provider\_MarketParticipant.mRID** codingScheme='A01'>BSP-EIC</**provider\_MarketParticipant.mRID**>

<**quantity\_Measurement\_Unit.name**>MAW</**quantity\_Measurement\_Unit.name**>

<**currency\_Unit.name**>EUR</**currency\_Unit.name**>

<**divisible**>A01</**divisible**>

<**linkedBidsIdentification**>XX</**linkedBidsIdentification**>

<**multipartBidIdentification**>YY</**multipartBidIdentification**>//or exclusiveBidsIdentification

<**status**>

<**value**>A06</**value**>

</**status**>

<**registeredResource.mRID** codingScheme='A01'>ReU-EIC</**registeredResource.mRID**>

<**flowDirection.direction**>A01</**flowDirection.direction**>

<**energyPrice\_Measurement\_Unit.name**>MWH<**/energyPrice\_Measurement\_Unit.name**>

<**marketAgreement.type**>A01</**marketAgreement.type**><**standard\_MarketProduct.marketProductType**>A07</**standard\_MarketProduct.marketProductType**>

<**Period**>

<**timeInterval**>

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<**resolution**>PT15M</**resolution**>

**<Point>**

<**position**>1</**position**>

<**quantity.quantity**>20.0</**quantity.quantity**>

<**minimum\_Quantity.quantity**>1.0</**minimum\_Quantity.quantity**>

<**energy\_Price.amount**>**3.00**</**energy\_Price.amount**>

</**Point**>

</**Period**>

</**Bid\_TimeSeries**>

<**Bid\_TimeSeries**>

<**mRID**>BID\_ID\_2</**mRID**>

<**auction.mRID**>AUCTION\_mFRR</**auction.mRID**>

<**businessType**>B74</**businessType**>

<**acquiring\_Domain.mRID** codingScheme='A01'>10Y1001C--00085O</**acquiring\_Domain.mRID**>

<**connecting\_Domain.mRID** codingScheme='A01'>10YLV-1001A00074</**connecting\_Domain.mRID**>

<**provider\_MarketParticipant.mRID** codingScheme='A01'>BSP-EIC</**provider\_MarketParticipant.mRID**>

<**quantity\_Measurement\_Unit.name**>MAW</**quantity\_Measurement\_Unit.name**>

<**currency\_Unit.name**>EUR</**currency\_Unit.name**>

<**divisible**>A01</**divisible**>

<**linkedBidsIdentification**>XX</**linkedBidsIdentification**>

<**multipartBidIdentification**>YY</**multipartBidIdentification**> //or exclusiveBidsIdentification

<**status**>

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</**status**>

<**registeredResource.mRID** codingScheme='A01'>ReU-EIC</**registeredResource.mRID**>

<**flowDirection.direction**>A01</**flowDirection.direction**>

<**energyPrice\_Measurement\_Unit.name**>MWH<**/energyPrice\_Measurement\_Unit.name**>

<**marketAgreement.type**>A01</**marketAgreement.type**><**standard\_MarketProduct.marketProductType**>A07</**standard\_MarketProduct.marketProductType**>

<**Period**>

<**timeInterval**>

<**start**>2022-12-06T10:00Z</**start**>

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</**timeInterval**>

<**resolution**>PT15M</**resolution**>

**<Point>**

<**position**>1</**position**>

<**quantity.quantity**>30.0</**quantity.quantity**>

<**minimum\_Quantity.quantity**>1.0</**minimum\_Quantity.quantity**>

<**energy\_Price.amount**>**6.00**</**energy\_Price.amount**>

</**Point**>

</**Period**>

</**Bid\_TimeSeries**>

</**ReserveBid\_MarketDocument**>

**MTU0:**

<?xml version='1.0' encoding='UTF-8' standalone='yes'?>

<**ReserveBid\_MarketDocument** xmlns='urn:iec62325.351:tc57wg16:451-7:reservebiddocument:7:3'>

<**mRID**>BID-doc-ID</**mRID**>

<**revisionNumber**>1</**revisionNumber**>

<**type**>A37</**type**>

<**process.processType**>A47</**process.processType**>

<**sender\_MarketParticipant.mRID** codingScheme='A01'>BSP-EIC</**sender\_MarketParticipant.mRID**>

<**sender\_MarketParticipant.marketRole.type**>A27</**sender\_MarketParticipant.marketRole.type**>

<**receiver\_MarketParticipant.mRID** codingScheme='A01'>10X1001A1001B54W</**receiver\_MarketParticipant.mRID**>

<**receiver\_MarketParticipant.marketRole.type**>A04</**receiver\_MarketParticipant.marketRole.type**>

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</**reserveBid\_Period.timeInterval**>

<**domain.mRID** codingScheme='A01'>10YLV-1001A00074</**domain.mRID**>

<**subject\_MarketParticipant.mRID** codingScheme='A01'> BSP-EIC </**subject\_MarketParticipant.mRID**>

<**subject\_MarketParticipant.marketRole.type**>A27</**subject\_MarketParticipant.marketRole.type**>

<**Bid\_TimeSeries**>

<**mRID**>BID\_ID\_3</**mRID**>

<**auction.mRID**>AUCTION\_mFRR</**auction.mRID**>

<**businessType**>B74</**businessType**>

<**acquiring\_Domain.mRID** codingScheme='A01'>10Y1001C--00085O</**acquiring\_Domain.mRID**>

<**connecting\_Domain.mRID** codingScheme='A01'>10YLV-1001A00074</**connecting\_Domain.mRID**>

<**provider\_MarketParticipant.mRID** codingScheme='A01'>BSP-EIC</**provider\_MarketParticipant.mRID**>

<**quantity\_Measurement\_Unit.name**>MAW</**quantity\_Measurement\_Unit.name**>

<**currency\_Unit.name**>EUR</**currency\_Unit.name**>

<**divisible**>A01</**divisible**>

<**linkedBidsIdentification**>XX</**linkedBidsIdentification**>

<**multipartBidIdentification**>OO</**multipartBidIdentification**> //or exclusiveBidsIdentification

<**status**>

<**value**>A06</**value**>

</**status**>

<**registeredResource.mRID** codingScheme='A01'>ReU-EIC</**registeredResource.mRID**>

<**flowDirection.direction**>A01</**flowDirection.direction**>

<**energyPrice\_Measurement\_Unit.name**>MWH<**/energyPrice\_Measurement\_Unit.name**>

<**marketAgreement.type**>A01</**marketAgreement.type**>

<**standard\_MarketProduct.marketProductType**>A07</**standard\_MarketProduct.marketProductType**>

<**Period**>

<**timeInterval**>

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</**timeInterval**>

<**resolution**>PT15M</**resolution**>

**<Point>**

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<**minimum\_Quantity.quantity**>1.0</**minimum\_Quantity.quantity**>

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</**Point**>

</**Period**>

</**Bid\_TimeSeries**>

<**Bid\_TimeSeries**>

<**mRID**>BID\_ID\_4</**mRID**>

<**auction.mRID**>AUCTION\_mFRR</**auction.mRID**>

<**businessType**>B74</**businessType**>

<**acquiring\_Domain.mRID** codingScheme='A01'>10Y1001C--00085O</**acquiring\_Domain.mRID**>

<**connecting\_Domain.mRID** codingScheme='A01'>10YLV-1001A00074</**connecting\_Domain.mRID**>

<**provider\_MarketParticipant.mRID** codingScheme='A01'>BSP-EIC</**provider\_MarketParticipant.mRID**>

<**quantity\_Measurement\_Unit.name**>MAW</**quantity\_Measurement\_Unit.name**>

<**currency\_Unit.name**>EUR</**currency\_Unit.name**>

<**divisible**>A01</**divisible**>

<**linkedBidsIdentification**>XX</**linkedBidsIdentification**>

<**multipartBidIdentification**>OO</**multipartBidIdentification**> //or exclusiveBidsIdentification

<**status**>

<**value**>A06</**value**>

</**status**>

<**registeredResource.mRID** codingScheme='A01'>ReU-EIC</**registeredResource.mRID**>

<**flowDirection.direction**>A01</**flowDirection.direction**>

<**energyPrice\_Measurement\_Unit.name**>MWH<**/energyPrice\_Measurement\_Unit.name**>

<**marketAgreement.type**>A01</**marketAgreement.type**><**standard\_MarketProduct.marketProductType**>A07</**standard\_MarketProduct.marketProductType**>

<**Period**>

<**timeInterval**>

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<**energy\_Price.amount**>**10.00**</**energy\_Price.amount**>

</**Point**>

</**Period**>

</**Bid\_TimeSeries**>

</**ReserveBid\_MarketDocument**>

**Technical linking (complex bids with simple bid)**

**MTU-1:**

<?xml version='1.0' encoding='UTF-8' standalone='yes'?>

<**ReserveBid\_MarketDocument** xmlns='urn:iec62325.351:tc57wg16:451-7:reservebiddocument:7:3'>

<**mRID**>BID-doc-ID</**mRID**>

<**revisionNumber**>1</**revisionNumber**>

<**type**>A37</**type**>

<**process.processType**>A47</**process.processType**>

<**sender\_MarketParticipant.mRID** codingScheme='A01'>BSP-EIC</**sender\_MarketParticipant.mRID**>

<**sender\_MarketParticipant.marketRole.type**>A27</**sender\_MarketParticipant.marketRole.type**>

<**receiver\_MarketParticipant.mRID** codingScheme='A01'>10X1001A1001B54W</**receiver\_MarketParticipant.mRID**>

<**receiver\_MarketParticipant.marketRole.type**>A04</**receiver\_MarketParticipant.marketRole.type**>

<**createdDateTime**>2022-12-06T09:44:00Z</**createdDateTime**>

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</**reserveBid\_Period.timeInterval**>

<**domain.mRID** codingScheme='A01'>10YLV-1001A00074</**domain.mRID**>

<**subject\_MarketParticipant.mRID** codingScheme='A01'> BSP-EIC </**subject\_MarketParticipant.mRID**>

<**subject\_MarketParticipant.marketRole.type**>A27</**subject\_MarketParticipant.marketRole.type**>

<**Bid\_TimeSeries**>

<**mRID**>BID\_ID\_1</**mRID**>

<**auction.mRID**>AUCTION\_mFRR</**auction.mRID**>

<**businessType**>B74</**businessType**>

<**acquiring\_Domain.mRID** codingScheme='A01'>10Y1001C--00085O</**acquiring\_Domain.mRID**>

<**connecting\_Domain.mRID** codingScheme='A01'>10YLV-1001A00074</**connecting\_Domain.mRID**>

<**provider\_MarketParticipant.mRID** codingScheme='A01'>BSP-EIC</**provider\_MarketParticipant.mRID**>

<**quantity\_Measurement\_Unit.name**>MAW</**quantity\_Measurement\_Unit.name**>

<**currency\_Unit.name**>EUR</**currency\_Unit.name**>

<**divisible**>A01</**divisible**>

<**linkedBidsIdentification**>QQ</**linkedBidsIdentification**>

<**exclusiveBidsIdentification**>LL</**exclusiveBidsIdentification**> //or multipartBidIdentification

<**status**>

<**value**>A06</**value**>

</**status**>

<**registeredResource.mRID** codingScheme='A01'>ReU-EIC</**registeredResource.mRID**>

<**flowDirection.direction**>A01</**flowDirection.direction**>

<**energyPrice\_Measurement\_Unit.name**>MWH<**/energyPrice\_Measurement\_Unit.name**>

<**marketAgreement.type**>A01</**marketAgreement.type**><**standard\_MarketProduct.marketProductType**>A05</**standard\_MarketProduct.marketProductType**>

<**Period**>

<**timeInterval**>

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<**resolution**>PT15M</**resolution**>

**<Point>**

<**position**>1</**position**>

<**quantity.quantity**>20.0</**quantity.quantity**>

<**minimum\_Quantity.quantity**>1.0</**minimum\_Quantity.quantity**>

<**energy\_Price.amount**>**3.00**</**energy\_Price.amount**>

</**Point**>

</**Period**>

</**Bid\_TimeSeries**>

<**Bid\_TimeSeries**>

<**mRID**>BID\_ID\_2</**mRID**>

<**auction.mRID**>AUCTION\_mFRR</**auction.mRID**>

<**businessType**>B74</**businessType**>

<**acquiring\_Domain.mRID** codingScheme='A01'>10Y1001C--00085O</**acquiring\_Domain.mRID**>

<**connecting\_Domain.mRID** codingScheme='A01'>10YLV-1001A00074</**connecting\_Domain.mRID**>

<**provider\_MarketParticipant.mRID** codingScheme='A01'>BSP-EIC</**provider\_MarketParticipant.mRID**>

<**quantity\_Measurement\_Unit.name**>MAW</**quantity\_Measurement\_Unit.name**>

<**currency\_Unit.name**>EUR</**currency\_Unit.name**>

<**divisible**>A01</**divisible**>

<**linkedBidsIdentification**>QQ</**linkedBidsIdentification**>

<**exclusiveBidsIdentification**>LL</**exclusiveBidsIdentification**> //or multipartBidIdentification

<**status**>

<**value**>A06</**value**>

</**status**>

<**registeredResource.mRID** codingScheme='A01'>ReU-EIC</**registeredResource.mRID**>

<**flowDirection.direction**>A01</**flowDirection.direction**>

<**energyPrice\_Measurement\_Unit.name**>MWH<**/energyPrice\_Measurement\_Unit.name**>

<**marketAgreement.type**>A01</**marketAgreement.type**><**standard\_MarketProduct.marketProductType**>A05</**standard\_MarketProduct.marketProductType**>

<**Period**>

<**timeInterval**>

<**start**>2022-12-06T11:00Z</**start**>

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<**resolution**>PT15M</**resolution**>

**<Point>**

<**position**>1</**position**>

<**quantity.quantity**>30.0</**quantity.quantity**>

<**minimum\_Quantity.quantity**>1.0</**minimum\_Quantity.quantity**>

<**energy\_Price.amount**>**6.00**</**energy\_Price.amount**>

</**Point**>

</**Period**>

</**Bid\_TimeSeries**>

</**ReserveBid\_MarketDocument**>

**MTU0:**

<?xml version='1.0' encoding='UTF-8' standalone='yes'?>

<**ReserveBid\_MarketDocument** xmlns='urn:iec62325.351:tc57wg16:451-7:reservebiddocument:7:3'>

<**mRID**>BID-doc-ID</**mRID**>

<**revisionNumber**>1</**revisionNumber**>

<**type**>A37</**type**>

<**process.processType**>A47</**process.processType**>

<**sender\_MarketParticipant.mRID** codingScheme='A01'>BSP-EIC</**sender\_MarketParticipant.mRID**>

<**sender\_MarketParticipant.marketRole.type**>A27</**sender\_MarketParticipant.marketRole.type**>

<**receiver\_MarketParticipant.mRID** codingScheme='A01'>10X1001A1001B54W</**receiver\_MarketParticipant.mRID**>

<**receiver\_MarketParticipant.marketRole.type**>A04</**receiver\_MarketParticipant.marketRole.type**>

<**createdDateTime**>2022-12-06T010:20:00Z</**createdDateTime**>

<**reserveBid\_Period.timeInterval**>

<**start**>2022-12-06T11:15Z</**start**>

<**end**>2022-12-06T11:30Z</**end**>

</**reserveBid\_Period.timeInterval**>

<**domain.mRID** codingScheme='A01'>10YLV-1001A00074</**domain.mRID**>

<**subject\_MarketParticipant.mRID** codingScheme='A01'> BSP-EIC </**subject\_MarketParticipant.mRID**>

<**subject\_MarketParticipant.marketRole.type**>A27</**subject\_MarketParticipant.marketRole.type**>

<**Bid\_TimeSeries**>

<**mRID**>BID\_ID\_3</**mRID**>

<**auction.mRID**>AUCTION\_mFRR</**auction.mRID**>

<**businessType**>B74</**businessType**>

<**acquiring\_Domain.mRID** codingScheme='A01'>10Y1001C--00085O</**acquiring\_Domain.mRID**>

<**connecting\_Domain.mRID** codingScheme='A01'>10YLV-1001A00074</**connecting\_Domain.mRID**>

<**provider\_MarketParticipant.mRID** codingScheme='A01'>BSP-EIC</**provider\_MarketParticipant.mRID**>

<**quantity\_Measurement\_Unit.name**>MAW</**quantity\_Measurement\_Unit.name**>

<**currency\_Unit.name**>EUR</**currency\_Unit.name**>

<**divisible**>A01</**divisible**>

<**linkedBidsIdentification**>QQ</**linkedBidsIdentification**>

<**status**>

<**value**>A06</**value**>

</**status**>

<**registeredResource.mRID** codingScheme='A01'>ReU-EIC</**registeredResource.mRID**>

<**flowDirection.direction**>A01</**flowDirection.direction**>

<**energyPrice\_Measurement\_Unit.name**>MWH<**/energyPrice\_Measurement\_Unit.name**>

<**marketAgreement.type**>A01</**marketAgreement.type**><**standard\_MarketProduct.marketProductType**>A05</**standard\_MarketProduct.marketProductType**>

<**Period**>

<**timeInterval**>

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<**end**>2022-12-06T11:30Z</**end**>

</**timeInterval**>

<**resolution**>PT15M</**resolution**>

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<**quantity.quantity**>200.0</**quantity.quantity**>

<**minimum\_Quantity.quantity**>1.0</**minimum\_Quantity.quantity**>

<**energy\_Price.amount**>**50.00**</**energy\_Price.amount**>

</**Point**>

</**Period**>

</**Bid\_TimeSeries**>

</**ReserveBid\_MarketDocument**>

**Conditional linking (only simple bids)**

**MTU-2:**

<?xml version='1.0' encoding='UTF-8' standalone='yes'?>

<**ReserveBid\_MarketDocument** xmlns='urn:iec62325.351:tc57wg16:451-7:reservebiddocument:7:3'>

<**mRID**>BID-doc-ID</**mRID**>

<**revisionNumber**>1</**revisionNumber**>

<**type**>A37</**type**>

<**process.processType**>A47</**process.processType**>

<**sender\_MarketParticipant.mRID** codingScheme='A01'>BSP-EIC</**sender\_MarketParticipant.mRID**>

<**sender\_MarketParticipant.marketRole.type**>A27</**sender\_MarketParticipant.marketRole.type**>

<**receiver\_MarketParticipant.mRID** codingScheme='A01'>10X1001A1001B54W</**receiver\_MarketParticipant.mRID**>

<**receiver\_MarketParticipant.marketRole.type**>A04</**receiver\_MarketParticipant.marketRole.type**>

<**createdDateTime**>2022-12-06T011:00:00Z</**createdDateTime**>

<**reserveBid\_Period.timeInterval**>

<**start**>2022-12-06T12:00Z</**start**>

<**end**>2022-12-06T12:15Z</**end**>

</**reserveBid\_Period.timeInterval**>

<**domain.mRID** codingScheme='A01'>10YLV-1001A00074</**domain.mRID**>

<**subject\_MarketParticipant.mRID** codingScheme='A01'> BSP-EIC </**subject\_MarketParticipant.mRID**>

<**subject\_MarketParticipant.marketRole.type**>A27</**subject\_MarketParticipant.marketRole.type**>

<**Bid\_TimeSeries**>

<**mRID**>BID\_ID\_1</**mRID**>

<**auction.mRID**>AUCTION\_mFRR</**auction.mRID**>

<**businessType**>B74</**businessType**>

<**acquiring\_Domain.mRID** codingScheme='A01'>10Y1001C--00085O</**acquiring\_Domain.mRID**>

<**connecting\_Domain.mRID** codingScheme='A01'>10YLV-1001A00074</**connecting\_Domain.mRID**>

<**provider\_MarketParticipant.mRID** codingScheme='A01'>BSP-EIC</**provider\_MarketParticipant.mRID**>

<**quantity\_Measurement\_Unit.name**>MAW</**quantity\_Measurement\_Unit.name**>

<**currency\_Unit.name**>EUR</**currency\_Unit.name**>

<**divisible**>A01</**divisible**>

<**status**>

<**value**>A06</**value**>

</**status**>

<**registeredResource.mRID** codingScheme='A01'>ReU-EIC</**registeredResource.mRID**>

<**flowDirection.direction**>A01</**flowDirection.direction**>

<**energyPrice\_Measurement\_Unit.name**>MWH<**/energyPrice\_Measurement\_Unit.name**>

<**marketAgreement.type**>A01</**marketAgreement.type**><**standard\_MarketProduct.marketProductType**>A07</**standard\_MarketProduct.marketProductType**>

<**Period**>

<**timeInterval**>

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<**quantity.quantity**>300.0</**quantity.quantity**>

<**minimum\_Quantity.quantity**>1.0</**minimum\_Quantity.quantity**>

<**energy\_Price.amount**>**50.00**</**energy\_Price.amount**>

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</**Period**>

</**Bid\_TimeSeries**>

</**ReserveBid\_MarketDocument**>

**MTU-1:**

<?xml version='1.0' encoding='UTF-8' standalone='yes'?>

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<**mRID**>BID-doc-ID</**mRID**>

<**revisionNumber**>1</**revisionNumber**>

<**type**>A37</**type**>

<**process.processType**>A47</**process.processType**>

<**sender\_MarketParticipant.mRID** codingScheme='A01'>BSP-EIC</**sender\_MarketParticipant.mRID**>

<**sender\_MarketParticipant.marketRole.type**>A27</**sender\_MarketParticipant.marketRole.type**>

<**receiver\_MarketParticipant.mRID** codingScheme='A01'>10X1001A1001B54W</**receiver\_MarketParticipant.mRID**>

<**receiver\_MarketParticipant.marketRole.type**>A04</**receiver\_MarketParticipant.marketRole.type**>

<**createdDateTime**>2022-12-06T011:00:00Z</**createdDateTime**>

<**reserveBid\_Period.timeInterval**>

<**start**>2022-12-06T12:15Z</**start**>

<**end**>2022-12-06T12:30Z</**end**>

</**reserveBid\_Period.timeInterval**>

<**domain.mRID** codingScheme='A01'>10YLV-1001A00074</**domain.mRID**>

<**subject\_MarketParticipant.mRID** codingScheme='A01'> BSP-EIC </**subject\_MarketParticipant.mRID**>

<**subject\_MarketParticipant.marketRole.type**>A27</**subject\_MarketParticipant.marketRole.type**>

<**Bid\_TimeSeries**>

<**mRID**>BID\_ID\_2</**mRID**>

<**auction.mRID**>AUCTION\_mFRR</**auction.mRID**>

<**businessType**>B74</**businessType**>

<**acquiring\_Domain.mRID** codingScheme='A01'>10Y1001C--00085O</**acquiring\_Domain.mRID**>

<**connecting\_Domain.mRID** codingScheme='A01'>10YLV-1001A00074</**connecting\_Domain.mRID**>

<**provider\_MarketParticipant.mRID** codingScheme='A01'>BSP-EIC</**provider\_MarketParticipant.mRID**>

<**quantity\_Measurement\_Unit.name**>MAW</**quantity\_Measurement\_Unit.name**>

<**currency\_Unit.name**>EUR</**currency\_Unit.name**>

<**divisible**>A01</**divisible**>

<**status**>

<**value**>**A65**</**value**> //Conditionally available

</**status**>

<**registeredResource.mRID** codingScheme='A01'>ReU-EIC</**registeredResource.mRID**>

<**flowDirection.direction**>A01</**flowDirection.direction**>

<**energyPrice\_Measurement\_Unit.name**>MWH<**/energyPrice\_Measurement\_Unit.name**>

<**marketAgreement.type**>A01</**marketAgreement.type**>

<**standard\_MarketProduct.marketProductType**>A07</**standard\_MarketProduct.marketProductType**>

<**Period**>

<**timeInterval**>

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<**resolution**>PT15M</**resolution**>

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<**quantity.quantity**>50.0</**quantity.quantity**>

<**minimum\_Quantity.quantity**>1.0</**minimum\_Quantity.quantity**>

<**energy\_Price.amount**>**10.00**</**energy\_Price.amount**>

</**Point**>

</**Period**>

<**Linked\_BidTimeSeries**>

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<**status**>

<**value**>A55</**value**> //Not available if linked bid activated

</**status**>

</**Linked\_BidTimeSeries**>

</**Bid\_TimeSeries**>

</**ReserveBid\_MarketDocument**>

MTU0:

<?xml version='1.0' encoding='UTF-8' standalone='yes'?>

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<**mRID**>BID-doc-ID</**mRID**>

<**revisionNumber**>1</**revisionNumber**>

<**type**>A37</**type**>

<**process.processType**>A47</**process.processType**>

<**sender\_MarketParticipant.mRID** codingScheme='A01'>BSP-EIC</**sender\_MarketParticipant.mRID**>

<**sender\_MarketParticipant.marketRole.type**>A27</**sender\_MarketParticipant.marketRole.type**>

<**receiver\_MarketParticipant.mRID** codingScheme='A01'>10X1001A1001B54W</**receiver\_MarketParticipant.mRID**>

<**receiver\_MarketParticipant.marketRole.type**>A04</**receiver\_MarketParticipant.marketRole.type**>

<**createdDateTime**>2022-12-06T011:00:00Z</**createdDateTime**>

<**reserveBid\_Period.timeInterval**>

<**start**>2022-12-06T12:30Z</**start**>

<**end**>2022-12-06T12:45Z</**end**>

</**reserveBid\_Period.timeInterval**>

<**domain.mRID** codingScheme='A01'>10YLV-1001A00074</**domain.mRID**>

<**subject\_MarketParticipant.mRID** codingScheme='A01'> BSP-EIC </**subject\_MarketParticipant.mRID**>

<**subject\_MarketParticipant.marketRole.type**>A27</**subject\_MarketParticipant.marketRole.type**>

<**Bid\_TimeSeries**>

<**mRID**>BID\_ID\_3</**mRID**>

<**auction.mRID**>AUCTION\_mFRR</**auction.mRID**>

<**businessType**>B74</**businessType**>

<**acquiring\_Domain.mRID** codingScheme='A01'>10Y1001C--00085O</**acquiring\_Domain.mRID**>

<**connecting\_Domain.mRID** codingScheme='A01'>10YLV-1001A00074</**connecting\_Domain.mRID**>

<**provider\_MarketParticipant.mRID** codingScheme='A01'>BSP-EIC</**provider\_MarketParticipant.mRID**>

<**quantity\_Measurement\_Unit.name**>MAW</**quantity\_Measurement\_Unit.name**>

<**currency\_Unit.name**>EUR</**currency\_Unit.name**>

<**divisible**>A01</**divisible**>

<**status**>

<**value**>**A65**</**value**> //Conditionally available

</**status**>

<**registeredResource.mRID** codingScheme='A01'>ReU-EIC</**registeredResource.mRID**>

<**flowDirection.direction**>A01</**flowDirection.direction**>

<**energyPrice\_Measurement\_Unit.name**>MWH<**/energyPrice\_Measurement\_Unit.name**>

<**marketAgreement.type**>A01</**marketAgreement.type**><**standard\_MarketProduct.marketProductType**>A07</**standard\_MarketProduct.marketProductType**>

<**Period**>

<**timeInterval**>

<**start**>2022-12-06T12:30Z</**start**>

<**end**>2022-12-06T12:45Z</**end**>

</**timeInterval**>

<**resolution**>PT15M</**resolution**>

**<Point>**

<**position**>1</**position**>

<**quantity.quantity**>26.0</**quantity.quantity**>

<**minimum\_Quantity.quantity**>1.0</**minimum\_Quantity.quantity**>

<**energy\_Price.amount**>**70.00**</**energy\_Price.amount**>

</**Point**>

</**Period**>

<**Linked\_BidTimeSeries**>

<**mRID**>**BID\_ID\_1**</**mRID**>

<**status**>

<**value**>A60</**value**> //Not available if linked bid subject to DA

</**status**>

</**Linked\_BidTimeSeries**>

<**Linked\_BidTimeSeries**>

<**mRID**>**BID\_ID\_2**</**mRID**>

<**status**>

<**value**>A59</**value**> //Not available if linked bid subject to SA

</**status**>

</**Linked\_BidTimeSeries**>

</**Bid\_TimeSeries**>

</**ReserveBid\_MarketDocument**>

**Technical linking and Conditional linking (only simple bids)**

**MTU-1:**

<?xml version='1.0' encoding='UTF-8' standalone='yes'?>

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<**mRID**>BID-doc-ID</**mRID**>

<**revisionNumber**>1</**revisionNumber**>

<**type**>A37</**type**>

<**process.processType**>A47</**process.processType**>

<**sender\_MarketParticipant.mRID** codingScheme='A01'>BSP-EIC</**sender\_MarketParticipant.mRID**>

<**sender\_MarketParticipant.marketRole.type**>A27</**sender\_MarketParticipant.marketRole.type**>

<**receiver\_MarketParticipant.mRID** codingScheme='A01'>10X1001A1001B54W</**receiver\_MarketParticipant.mRID**>

<**receiver\_MarketParticipant.marketRole.type**>A04</**receiver\_MarketParticipant.marketRole.type**>

<**createdDateTime**>2022-12-06T012:20:00Z</**createdDateTime**>

<**reserveBid\_Period.timeInterval**>

<**start**>2022-12-06T13:00Z</**start**>

<**end**>2022-12-06T13:15Z</**end**>

</**reserveBid\_Period.timeInterval**>

<**domain.mRID** codingScheme='A01'>10YLV-1001A00074</**domain.mRID**>

<**subject\_MarketParticipant.mRID** codingScheme='A01'> BSP-EIC </**subject\_MarketParticipant.mRID**>

<**subject\_MarketParticipant.marketRole.type**>A27</**subject\_MarketParticipant.marketRole.type**>

<**Bid\_TimeSeries**>

<**mRID**>1\_BID\_ID\_1</**mRID**>

<**auction.mRID**>AUCTION\_mFRR</**auction.mRID**>

<**businessType**>B74</**businessType**>

<**acquiring\_Domain.mRID** codingScheme='A01'>10Y1001C--00085O</**acquiring\_Domain.mRID**>

<**connecting\_Domain.mRID** codingScheme='A01'>10YLV-1001A00074</**connecting\_Domain.mRID**>

<**provider\_MarketParticipant.mRID** codingScheme='A01'>BSP-EIC</**provider\_MarketParticipant.mRID**>

<**quantity\_Measurement\_Unit.name**>MAW</**quantity\_Measurement\_Unit.name**>

<**currency\_Unit.name**>EUR</**currency\_Unit.name**>

<**divisible**>A01</**divisible**>

<**linkedBidsIdentification**>QQW</**linkedBidsIdentification**>

<**status**>

<**value**>A06</**value**>

</**status**>

<**registeredResource.mRID** codingScheme='A01'>ReU-EIC</**registeredResource.mRID**>

<**flowDirection.direction**>A01</**flowDirection.direction**>

<**energyPrice\_Measurement\_Unit.name**>MWH<**/energyPrice\_Measurement\_Unit.name**>

<**marketAgreement.type**>A01</**marketAgreement.type**><**standard\_MarketProduct.marketProductType**>A07</**standard\_MarketProduct.marketProductType**>

<**Period**>

<**timeInterval**>

<**start**>2022-12-06T13:00Z</**start**>

<**end**>2022-12-06T13:15Z</**end**>

</**timeInterval**>

<**resolution**>PT15M</**resolution**>

**<Point>**

<**position**>1</**position**>

<**quantity.quantity**>30.0</**quantity.quantity**>

<**minimum\_Quantity.quantity**>1.0</**minimum\_Quantity.quantity**>

<**energy\_Price.amount**>**50.00**</**energy\_Price.amount**>

</**Point**>

</**Period**>

</**Bid\_TimeSeries**>

<**Bid\_TimeSeries**>

<**mRID**>2\_BID\_ID\_2</**mRID**>

<**auction.mRID**>AUCTION\_mFRR</**auction.mRID**>

<**businessType**>B74</**businessType**>

<**acquiring\_Domain.mRID** codingScheme='A01'>10Y1001C--00085O</**acquiring\_Domain.mRID**>

<**connecting\_Domain.mRID** codingScheme='A01'>10YLV-1001A00074</**connecting\_Domain.mRID**>

<**provider\_MarketParticipant.mRID** codingScheme='A01'>BSP-EIC</**provider\_MarketParticipant.mRID**>

<**quantity\_Measurement\_Unit.name**>MAW</**quantity\_Measurement\_Unit.name**>

<**currency\_Unit.name**>EUR</**currency\_Unit.name**>

<**divisible**>A01</**divisible**>

<**linkedBidsIdentification**>WW1</**linkedBidsIdentification**>

<**status**>

<**value**>A06</**value**>

</**status**>

<**registeredResource.mRID** codingScheme='A01'>ReU-EIC</**registeredResource.mRID**>

<**flowDirection.direction**>A01</**flowDirection.direction**>

<**energyPrice\_Measurement\_Unit.name**>MWH<**/energyPrice\_Measurement\_Unit.name**>

<**marketAgreement.type**>A01</**marketAgreement.type**><**standard\_MarketProduct.marketProductType**>A07</**standard\_MarketProduct.marketProductType**>

<**Period**>

<**timeInterval**>

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<**resolution**>PT15M</**resolution**>

**<Point>**

<**position**>1</**position**>

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<**minimum\_Quantity.quantity**>1.0</**minimum\_Quantity.quantity**>

<**energy\_Price.amount**>**20.00**</**energy\_Price.amount**>

</**Point**>

</**Period**>

</**Bid\_TimeSeries**>

</**ReserveBid\_MarketDocument**>

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<?xml version='1.0' encoding='UTF-8' standalone='yes'?>

<**ReserveBid\_MarketDocument** xmlns='urn:iec62325.351:tc57wg16:451-7:reservebiddocument:7:3'>

<**mRID**>BID-doc-ID</**mRID**>

<**revisionNumber**>1</**revisionNumber**>

<**type**>A37</**type**>

<**process.processType**>A47</**process.processType**>

<**sender\_MarketParticipant.mRID** codingScheme='A01'>BSP-EIC</**sender\_MarketParticipant.mRID**>

<**sender\_MarketParticipant.marketRole.type**>A27</**sender\_MarketParticipant.marketRole.type**>

<**receiver\_MarketParticipant.mRID** codingScheme='A01'>10X1001A1001B54W</**receiver\_MarketParticipant.mRID**>

<**receiver\_MarketParticipant.marketRole.type**>A04</**receiver\_MarketParticipant.marketRole.type**>

<**createdDateTime**>2022-12-06T012:25:00Z</**createdDateTime**>

<**reserveBid\_Period.timeInterval**>

<**start**>2022-12-06T13:15Z</**start**>

<**end**>2022-12-06T13:30Z</**end**>

</**reserveBid\_Period.timeInterval**>

<**domain.mRID** codingScheme='A01'>10YLV-1001A00074</**domain.mRID**>

<**subject\_MarketParticipant.mRID** codingScheme='A01'> BSP-EIC </**subject\_MarketParticipant.mRID**>

<**subject\_MarketParticipant.marketRole.type**>A27</**subject\_MarketParticipant.marketRole.type**>

<**Bid\_TimeSeries**>

<**mRID**>3\_BID\_ID\_3</**mRID**>

<**auction.mRID**>AUCTION\_mFRR</**auction.mRID**>

<**businessType**>B74</**businessType**>

<**acquiring\_Domain.mRID** codingScheme='A01'>10Y1001C--00085O</**acquiring\_Domain.mRID**>

<**connecting\_Domain.mRID** codingScheme='A01'>10YLV-1001A00074</**connecting\_Domain.mRID**>

<**provider\_MarketParticipant.mRID** codingScheme='A01'>BSP-EIC</**provider\_MarketParticipant.mRID**>

<**quantity\_Measurement\_Unit.name**>MAW</**quantity\_Measurement\_Unit.name**>

<**currency\_Unit.name**>EUR</**currency\_Unit.name**>

<**divisible**>A01</**divisible**>

<**linkedBidsIdentification**>QQW</**linkedBidsIdentification**>

<**status**>

<**value**>A06</**value**>

</**status**>

<**registeredResource.mRID** codingScheme='A01'>ReU-EIC</**registeredResource.mRID**>

<**flowDirection.direction**>A01</**flowDirection.direction**>

<**energyPrice\_Measurement\_Unit.name**>MWH<**/energyPrice\_Measurement\_Unit.name**>

<**marketAgreement.type**>A01</**marketAgreement.type**><**standard\_MarketProduct.marketProductType**>A07</**standard\_MarketProduct.marketProductType**>

<**Period**>

<**timeInterval**>

<**start**>2022-12-06T13:15Z</**start**>

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</**timeInterval**>

<**resolution**>PT15M</**resolution**>

**<Point>**

<**position**>1</**position**>

<**quantity.quantity**>12.0</**quantity.quantity**>

<**minimum\_Quantity.quantity**>1.0</**minimum\_Quantity.quantity**>

<**energy\_Price.amount**>**100.00**</**energy\_Price.amount**>

</**Point**>

</**Period**>

</**Bid\_TimeSeries**>

<**Bid\_TimeSeries**>

<**mRID**>4\_BID\_ID\_4</**mRID**>

<**auction.mRID**>AUCTION\_mFRR</**auction.mRID**>

<**businessType**>B74</**businessType**>

<**acquiring\_Domain.mRID** codingScheme='A01'>10Y1001C--00085O</**acquiring\_Domain.mRID**>

<**connecting\_Domain.mRID** codingScheme='A01'>10YLV-1001A00074</**connecting\_Domain.mRID**>

<**provider\_MarketParticipant.mRID** codingScheme='A01'>BSP-EIC</**provider\_MarketParticipant.mRID**>

<**quantity\_Measurement\_Unit.name**>MAW</**quantity\_Measurement\_Unit.name**>

<**currency\_Unit.name**>EUR</**currency\_Unit.name**>

<**divisible**>A01</**divisible**>

<**linkedBidsIdentification**>WW1</**linkedBidsIdentification**>

<**status**>

<**value**>A66</**value**> //Conditionally unavailable

</**status**>

<**registeredResource.mRID** codingScheme='A01'>ReU-EIC</**registeredResource.mRID**>

<**flowDirection.direction**>A01</**flowDirection.direction**>

<**energyPrice\_Measurement\_Unit.name**>MWH<**/energyPrice\_Measurement\_Unit.name**>

<**marketAgreement.type**>A01</**marketAgreement.type**><**standard\_MarketProduct.marketProductType**>A07</**standard\_MarketProduct.marketProductType**>

<**Period**>

<**timeInterval**>

<**start**>2022-12-06T13:15Z</**start**>

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**<Point>**

<**position**>1</**position**>

<**quantity.quantity**>28.0</**quantity.quantity**>

<**minimum\_Quantity.quantity**>1.0</**minimum\_Quantity.quantity**>

<**energy\_Price.amount**>**38.00**</**energy\_Price.amount**>

</**Point**>

</**Period**>

<**Linked\_BidTimeSeries**>

<**mRID**>**1\_BID\_ID\_1**</**mRID**>

<**status**>

<**value**>A70</**value**> //Available if linked bid subject to DA

</**status**>

</**Linked\_BidTimeSeries**>

<**Linked\_BidTimeSeries**>

<**mRID**>**2\_BID\_ID\_2**</**mRID**>

<**value**>A72</**value**> //Available for DA if linked bid subject to SA

</**status**>

</**Linked\_BidTimeSeries**>

</**Bid\_TimeSeries**>

</**ReserveBid\_MarketDocument**>

# aFRR document examples

## Biding example

This section provides detailed example about bid submission and the options of editing the bid or withdrawing it from tender.

The BSPs can provide several bids in one document, that would be realized as several Bid time series in one Bid document covering period of all Bid time series or as separate bids in separate documents.

To edit the submitted bids the higher version of the same document can be used, but in case the time period does not match the original document or there is a need for example to update only one of Bid Time Series, add new Bid Time series, then new document can be used.

The initial state of the example:

* BSP submits Bid document containing three separate bids – represented as 3 Bid Time series.



* In the BMS the local bid list is created, containing all currently actual bids:



* The BSP submits new document, providing only one of the time series mentioned before and a new one:



In TS\_BID24 additional 3 positions are provided, but the positions for last two hours are included in document period but not in the time series periods, meaning that these time series positions should be removed.

TS\_BID26 previously was not included in document, meaning that this is a new bid added to the existing ones.

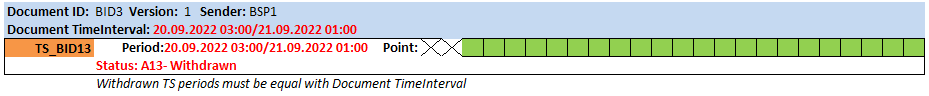
The changes to the bid time series should be done considering the GCT. If the GCT for the first (or more) position in the original time series has already passed, then the Time Series should not include this period at all. Otherwise the whole document will be rejected by BMS.

* In the result the local bid list is updated. Creating the following list:



Where TS\_BID13 and TS\_BID25 have remained unchanged, TS\_BID26 have been added and in TS\_BID24 the newly added positions are added, but last two -removed.

* The BSP deletes one of the bids completely by submitting the Bid time series, containing the original data, but applying the status – A13 – withdrawn.





* In the result the local bid list in system is changed accordingly:



## Activation

Activation of the aFRR bids are outside the scope of this document. Activation is performed by LFC controller by real-time setpoints.

## aFRR Bid document example

<?xml version='1.0' encoding='UTF-8' standalone='yes'?>

<**ReserveBid\_MarketDocument** xmlns='urn:iec62325.351:tc57wg16:451-7:reservebiddocument:7:3'>

<**mRID**>BID-doc-ID</**mRID**>

<**revisionNumber**>1</**revisionNumber**>

<**type**>A37</**type**>

<**process.processType**>A51</**process.processType**>

<**sender\_MarketParticipant.mRID** codingScheme='A01'>BSP-EIC</**sender\_MarketParticipant.mRID**>

<**sender\_MarketParticipant.marketRole.type**>A27</**sender\_MarketParticipant.marketRole.type**>

<**receiver\_MarketParticipant.mRID** codingScheme='A01'>10X1001A1001B54W</**receiver\_MarketParticipant.mRID**>

<**receiver\_MarketParticipant.marketRole.type**>A04</**receiver\_MarketParticipant.marketRole.type**>

<**createdDateTime**>2024-03-30T10:44:00Z</**createdDateTime**>

<**reserveBid\_Period.timeInterval**>

<**start**>2024-03-30T14:00Z</**start**>

<**end**>2024-03-30T14:15Z</**end**>

</**reserveBid\_Period.timeInterval**>

<**domain.mRID** codingScheme='A01'>10YLV-1001A00074</**domain.mRID**>

<**subject\_MarketParticipant.mRID** codingScheme='A01'>BSP-EIC</**subject\_MarketParticipant.mRID**>

<**subject\_MarketParticipant.marketRole.type**>A27</**subject\_MarketParticipant.marketRole.type**>

<**Bid\_TimeSeries**>

<**mRID**>TS\_BID\_ID</**mRID**>

<**auction.mRID**>AUCTION\_aFRR</**auction.mRID**>

<**businessType**>B74</**businessType**>

<**acquiring\_Domain.mRID** codingScheme='A01'>10Y1001C--00090V</**acquiring\_Domain.mRID**>

<**connecting\_Domain.mRID** codingScheme='A01'>10YLV-1001A00074</**connecting\_Domain.mRID**>

<**provider\_MarketParticipant.mRID** codingScheme='A01'>BSP-EIC</**provider\_MarketParticipant.mRID**>

<**energyPrice\_Measurement\_Unit.name**>MWH</**energyPrice\_Measurement\_Unit.name**>

<**quantity\_Measurement\_Unit.name**>MAW</**quantity\_Measurement\_Unit.name**>

<**currency\_Unit.name**>EUR</**currency\_Unit.name**>

<**divisible**>A01</**divisible**>

<**status**>

<**value**>A06</**value**>

</**status**>

<**registeredResource.mRID** codingScheme='A01'>ReU-EIC</**registeredResource.mRID**>

<**flowDirection.direction**>A02</**flowDirection.direction**>

<**energyPrice\_Measurement\_Unit.name**>MWH</energyPrice\_Measurement\_Unit.name>

<**marketAgreement.type**>A01</**marketAgreement.type**>

<**standard\_MarketProduct.marketProductType**>A01</**standard\_MarketProduct.marketProductType**>

<**Period**>

<**timeInterval**>

<**start**>2024-03-30T14:00Z</**start**>

<**end**>2024-03-30T14:15Z</**end**>

</**timeInterval**>

<**resolution**>PT15M</**resolution**>

**<Point>**

<**position**>1</**position**>

<**quantity.quantity**>10.0</**quantity.quantity**>

<**energy\_Price.amount**>0.00</**energy\_Price.amount**>

</**Point**>

</**Period**>

</**Bid\_TimeSeries**>

</**ReserveBid\_MarketDocument**>

## Acknowledgement document example

<**Acknowledgement\_MarketDocument** xmlns='urn:iec62325.351:tc57wg16:451-1:acknowledgementdocument:8:1'>

<**mRID**>ACKdocument-ID</**mRID**>

<**createdDateTime**>2022-11-02T10:28:00Z</**createdDateTime**>

<**sender\_MarketParticipant.mRID** codingScheme='A01'>BSP-EIC</**sender\_MarketParticipant.mRID>**

<**sender\_MarketParticipant.marketRole.type**>A27</**sender\_MarketParticipant.marketRole.type**>

<**receiver\_MarketParticipant.mRID** codingScheme='A01'>10X1001A1001B54W</**receiver\_MarketParticipant.mRID**>

<**receiver\_MarketParticipant.marketRole.type**>A04</**receiver\_MarketParticipant.marketRole.type**>

<**received\_MarketDocument.mRID**> BID-doc-ID </**received\_MarketDocument.mRID**>

<**received\_MarketDocument.revisionNumber**>1</**received\_MarketDocument.revisionNumber**>

<**received\_MarketDocument.type**>A37</**received\_MarketDocument.type**>

<**received\_MarketDocument.process.processType**>A30</**received\_MarketDocument.process.processType**>

<**received\_MarketDocument.createdDateTime**>2022-11-02T10:27:14Z</**received\_MarketDocument.createdDateTime**>

<**Reason**>

<**code**>A01</**code**>

<**text**>Message fully accepted</**text**>

</**Reason**>

</**Acknowledgement\_MarketDocument**>

## Confirmation Document Example

<?xml version="1.0" encoding="UTF-8" standalone="true"?>

[**<Confirmation\_MarketDocument** xmlns="urn:iec62325.351:tc57wg16:451-2:confirmationdocument:5:2">](file:///C:/Users/atiesnie/Documents/PICASSO/XML_shemas/examples/CONF_merging_successful.xml)

**<mRID>**CONFdocumentID**</mRID>**

**<type>**B41**</type>**

**<createdDateTime>**2024-07-02T11:54:47Z**</createdDateTime>**

<**sender\_MarketParticipant.mRID codingScheme="A01">**10X1001A1001B54W **</sender\_MarketParticipant.mRID>**

**<sender\_MarketParticipant.marketRole.type>**A04**</sender\_MarketParticipant.marketRole.type>**

**<receiver\_MarketParticipant.mRID** codingScheme="A01"**>**BSP-EIC**</receiver\_MarketParticipant.mRID>**

**<receiver\_MarketParticipant.marketRole.type>**A27**</receiver\_MarketParticipant.marketRole.type>**

[**<schedule\_Period.timeInterval>**](file:///C:/Users/atiesnie/Documents/PICASSO/XML_shemas/examples/CONF_merging_successful.xml)

**<start>**2024-07-02T12:15Z**</start>**

**<end>**2024-07-02T12:30Z**</end>**

**</schedule\_Period.timeInterval>**

**<confirmed\_MarketDocument.mRID>**BID-document-ID**</confirmed\_MarketDocument.mRID>**

**<confirmed\_MarketDocument.revisionNumber>**2**</confirmed\_MarketDocument.revisionNumber>**

**<domain.mRID codingScheme="A01">**10Y1001C--00090V**</domain.mRID>**

**<process.processType>**A51**</process.processType>**

[**<Reason>**](file:///C:/Users/atiesnie/Documents/PICASSO/XML_shemas/examples/CONF_merging_successful.xml)

**<code>**B53**</code>**

**<text>**MOL merging successful**</text>**

**</Reason>**

**</Confirmation\_MarketDocument>**

1. Mandatory parameter is defined based on xsd schema. Otherwise if tag conditions does not include the case where in is not used, it is mandatory to include such tag in document being submitted. [↑](#footnote-ref-2)
2. Mandatory parameter is defined based on xsd schema. Otherwise if tag conditions does not include the case where in is not used, it is mandatory to include such tag in document being submitted. [↑](#footnote-ref-3)
3. Mandatory parameter is defined based on xml schema. Otherwise if tag conditions does not include the case where in is not used, it is mandatory to include such tag in document being provided. [↑](#footnote-ref-4)
4. Mandatory parameter is defined based on xml schema. Otherwise if tag conditions does not include the case where in is not used, it is mandatory to include such tag in document being provided. [↑](#footnote-ref-5)
5. Mandatory parameter is defined based on xml schema. Otherwise if tag conditions does not include the case where in is not used, it is mandatory to include such tag in document being provided. [↑](#footnote-ref-6)
6. Mandatory parameter is defined based on xsd schema. Otherwise if tag conditions does not include the case where in is not used, it is mandatory to include such tag in document being submitted. [↑](#footnote-ref-7)
7. Mandatory parameter is defined based on xsd schema. Otherwise if tag conditions does not include the case where in is not used, it is mandatory to include such tag in document being submitted. [↑](#footnote-ref-8)
8. Mandatory parameter is defined based on xsd schema. Otherwise if tag conditions does not include the case where in is not used, it is mandatory to include such tag in document being submitted. [↑](#footnote-ref-9)
9. Mandatory parameter is defined based on xml schema. Otherwise if tag conditions does not include the case where in is not used, it is mandatory to include such tag in document being provided. [↑](#footnote-ref-10)
10. Mandatory parameter is defined based on xml schema. Otherwise if tag conditions does not include the case where in is not used, it is mandatory to include such tag in document being provided. [↑](#footnote-ref-11)
11. Mandatory parameter is defined based on xml schema. Otherwise if tag conditions does not include the case where in is not used, it is mandatory to include such tag in document being provided. [↑](#footnote-ref-12)
12. Mandatory parameter is defined based on xsd schema. Otherwise if tag conditions does not include the case where in is not used, it is mandatory to include such tag in document being submitted. [↑](#footnote-ref-13)
13. Mandatory parameter is defined based on xsd schema. Otherwise if tag conditions does not include the case where in is not used, it is mandatory to include such tag in document being submitted. [↑](#footnote-ref-14)
14. Mandatory parameter is defined based on xsd schema. Otherwise if tag conditions does not include the case where in is not used, it is mandatory to include such tag in document being submitted. [↑](#footnote-ref-15)