European Network of
Transmission System Operators
for Electricity

Common Platform for manually activated restoration reserves IMPLEMENTATION GUIDE

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VERSION 1.0

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NOTE CONCERNING WORDING USED IN THIS DOCUMENT

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

- SHALL: This word, or the terms “REQUIRED” or “MUST”, means that the definition is an absolute requirement of the specification.
- SHALL NOT: This phrase, or the phrase “MUST NOT”, means that the definition is an absolute prohibition of the specification.
- SHOULD: This word, or the adjective “RECOMMENDED”, means that there may exist valid reasons in particular circumstances to ignore a particular item, but the full implications shall be understood and carefully weighed before choosing a different course.
- SHOULD NOT: This phrase, or the phrase “NOT RECOMMENDED”, means that there may exist valid reasons in particular circumstances when the particular behaviour is acceptable or even useful, but the full implications should be understood and the case carefully weighed before implementing any behaviour described with this label.
- MAY: This word, or the adjective “OPTIONAL”, means that an item is truly optional. One vendor may choose to include the item because a particular marketplace requires it or because the vendor feels that it enhances the product while another vendor may omit the same item. An implementation which does not include a particular option SHALL be prepared to interoperate with another implementation which does include the option, though perhaps with reduced functionality. In the same vein an implementation which does include a particular option SHALL be prepared to interoperate with another implementation which does not include the option (except, of course, for the feature the option provides.).

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Revision History

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1 Introduction

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

2 Scope

This implementation guide defines the data exchanges with the European platform for the exchange of balancing energy from frequency restoration reserves with manual activation, as mandated by article 20 of the electricity balancing guideline (EB GL).

3 Normative references

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

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

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

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

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

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

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

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

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

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

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

ENTSO-E RG CE scheduling reporting process implementation guide

ENTSO-E Manual of Procedures for central Transparency Platform v3r2

Commission Regulation (EU) 2017/2195 of 23 November 2017 establishing a guideline on electricity balancing (EB GL)

Commission Regulation (EU) 2013/543 of 14 June 2013 on submission and publication of data in electricy markets (TR)

3.1 Applicable EDI documents

This implementation guide assumes the use of the following EDI documents and contextual and assembly models (also referred to as XSD or schema versions):

160 **Table 1 – Applicable EDI documents**

161

EDI document	version
Capacity document	urn :iec62325.351 :tc 57wg16 :451-3 :capacitydocument :8 :0
HVDC link document	urn:iec62325.351:tc57wg16:451-8:hvdclinkdocument:1:0
Bid document	urn:iec62325.351:tc57wg16:451-7:reservebiddocument:7:2
MOL document	urn:iec62325.351:tc57wg16:451-7:moldocument:7:2
Schedule document	urn:iec62325.351:tc57wg16:451-2:scheduledocument:5:1
Energy account document	urn:iec62325.351:tc57wg16:451-4:energyaccountdocument:4:0
Balancing market document	urn:iec62325.351:tc57wg16:451-6:balancingdocument:4:1
Acknowledgement document	urn:iec62325.351:tc57wg16:451-1:acknowledgementdocument:8:0
Problem document	urn:iec62325.351:tc57wg16:451-5:problemdocument:3:0
Unavailability market document	urn:iec62325.351:tc57wg16:451-6:outagedocument:4:0
Bid availability market document	urn:iec62325.351:tc57wg16:451-n:bidavailabilitydocument:1:0

162 All schemas are available for download from the ENTSO-E website.

163 ### 3.2 Applicable protocols for file based data exchange

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

165 - MADES (IEC 62325-503)

166 - web services (IEC 62325-504)

167 - EDX protocol

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4 Terms and definitions

AOF

Activation Optimisation Function; as defined by EB GL article 2(39)

activation period

For the mFRR standard product, the activation period starts in the middle of ramp-up and ends in the middle of ramp-down. For scheduled activations the activation period is equal to 15 minutes and coincides with the MTU period that is being optimized by the AOF. For direct activations the activation period may have a duration from 15 minutes up to 30 minutes, starting during the MTU period being optimized by the AOF and ending with the following MTU period.

area

Unless explicitly specified, area may refer to either a scheduling area, LFC area, control area, LFC control block or an aggregation thereof.

Balancing service provider (BSP)

As defined by EB GL art. 2(6)

CBCL

Cross-border capacity limit

direct activation (DA)

direct activation can be initiated at any point in time after scheduled optimization has begun for given MTU period

GCT

Gate closure time

HVDC

High voltage direct current

IF

Implementation Framework

mFRR

Manual frequency restoration reserves; active power reserves that may be manually activated, available to restore system frequency to the nominal frequency and, for a synchronous area consisting of more than one LFC area, to restore power balance to the scheduled value.

MTU

Market Time Unit

SA CE

Synchronous Area Continental Europe

scheduled activation (SA)

scheduled activation can be initiated only at a specific point in time in relation to given MTU period

simple bid

A bid which is not part of a multipart or exclusive group of bids

XB

Cross-border

XB flows

Cross-border flows in the context of this document is equivalent to cross-border schedules

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5 The manual frequency restoration reserve business process for standard products

5.1 General overview

The common mFRR platform is dedicated to the mFRR process only and will therefore, as a general rule, receive input data and produce output data that is related to the mFRR timeframe only[1]. The platform has a number of operational phases that will be carried out continuously 24 * 7:

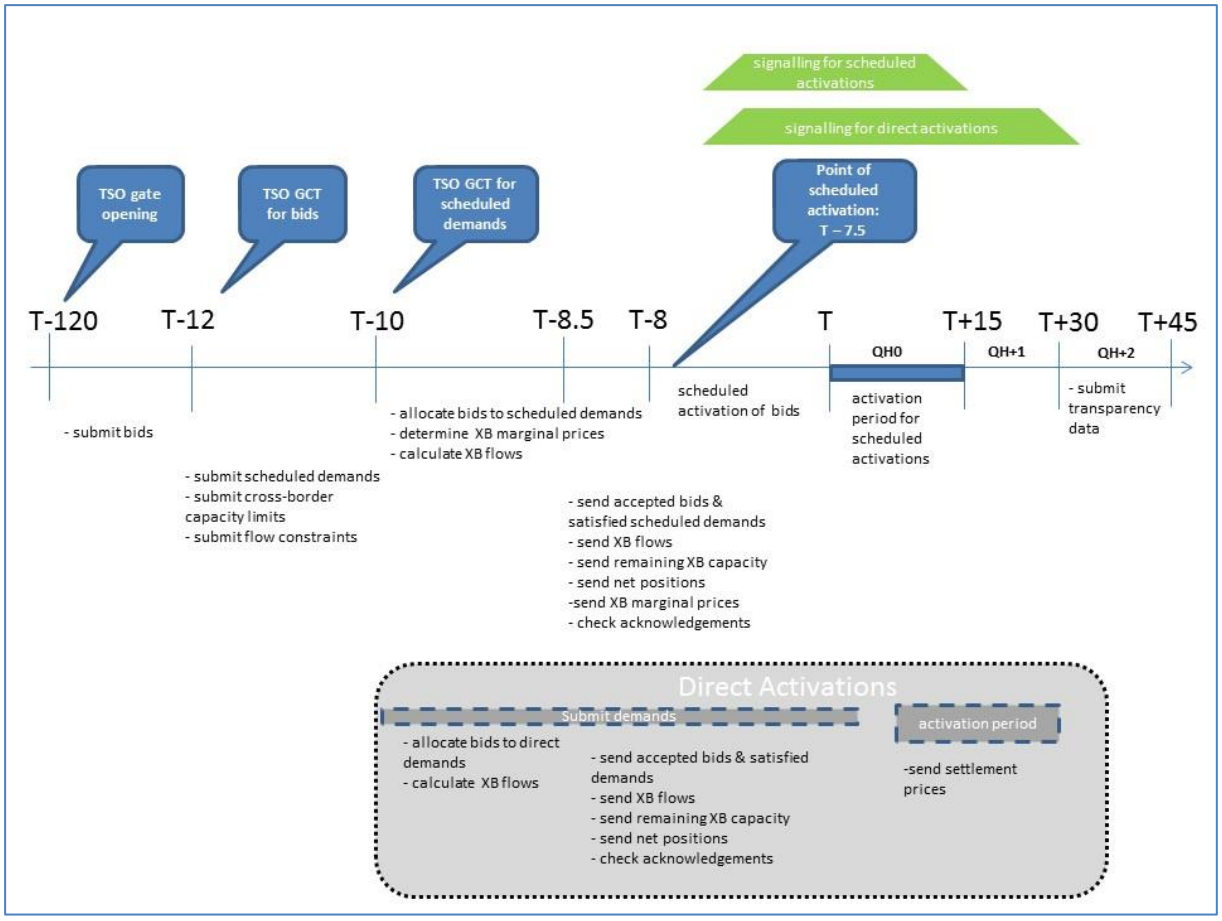

Figure 1: Manual frequency restoration reserve process in common platform - overview

The common platform's operational phases outlined in Figure 1 exhibits the timing in order to satisfy a fifteen minute scheduled activation period starting at T and ending at T+15. All timings throughout the whole document are expressed in minutes and relative to the start of the market time unit for which activations are optimised by the platform (MTU0).

At T-120 the gate opens for submissions of all types of data from TSOs to the mFRR platform, except for demands for direct activations.

TSO gate closure for balancing energy bids occurs at T-12.

TSO gate closure for demands for scheduled activations, CBCLs and interconnector flow constraints occurs at T-10. Note that updates to CBCLs may be submitted continuously.

Between T-10 and T-8.5 the mFRR platform with its AOF selects bids to satisfy the demands for scheduled activations, determines the cross-border marginal prices and calculates the cross-border flows. In the subsequent results communication and verification phase between

[1] The only exception to this rule is the input HVDC and AC schedules. Please refer to 5.3.5 for further details.

T-8.5 and T-8, the resulting net positions, cross-border flows and remaining capacity are sent to TSOs together with cross-border marginal prices and the bids selected for activation and the satisfied demands. The net positions and cross-border flows are also sent to the SA CEmonitor.

At T-8 the scheduled activation phase begins during which bids selected by the AOF are communicated by each TSO to their respective BSPs. At T-7.5, scheduled activation is initiated.

Delivery of balancing energy for scheduled activations, including ramping, occurs between T-5 and T+20. This is also the time interval during which corresponding signalling will occur.

TSOs may submit their demands for direct activation from T-10 until T+5. Processing of such demands will have to wait until the AOF completes optimisation of the scheduled activations. Likewise, if the AOF is already busy processing one or several demands for direct activations, any subsequently arriving demands for direct activations will have to wait until the AOF finishes.

Delivery of balancing energy for direct activations, including ramping, may start at any point in time between T-5 and T+10, depending on when the demand(s) arrived on the platform. The delivery will always end at T+35. This is also the time interval during which corresponding signalling will occur.

As soon as the AOF has finished processing a set of demands for direct activations the cross-border flows, remaining capacity and net positions are sent to TSOs together with the selected bids and satisfied demands. It should be noted that the activation period for direct activations stretches until T+30, i.e. until end of following quarter hour.

Settlement prices related to the energy delivered in MTU1 for direct activations submitted for MTU0 can only be determined and distributed to TSO by T+7, after the scheduled optimisation for MTU1.

By T+40 the latest, TSOs submit the detailed reasons for changes to bid availability.

By T+45 the latest reporting of data to the ENTSO-E central transparency platform shall occur.

Whenever a TSO is disconnected or decoupled from the mFRR process or the platform experiences a failure or becomes unavailable, the platform will send an outage document to all participating TSOs.

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5.2 Overall business context

This Implementation Guide provides the means of exchanging between the common platform and all concerned parties the information necessary to fulfill the process requirements outlined in paragraph 5.1.

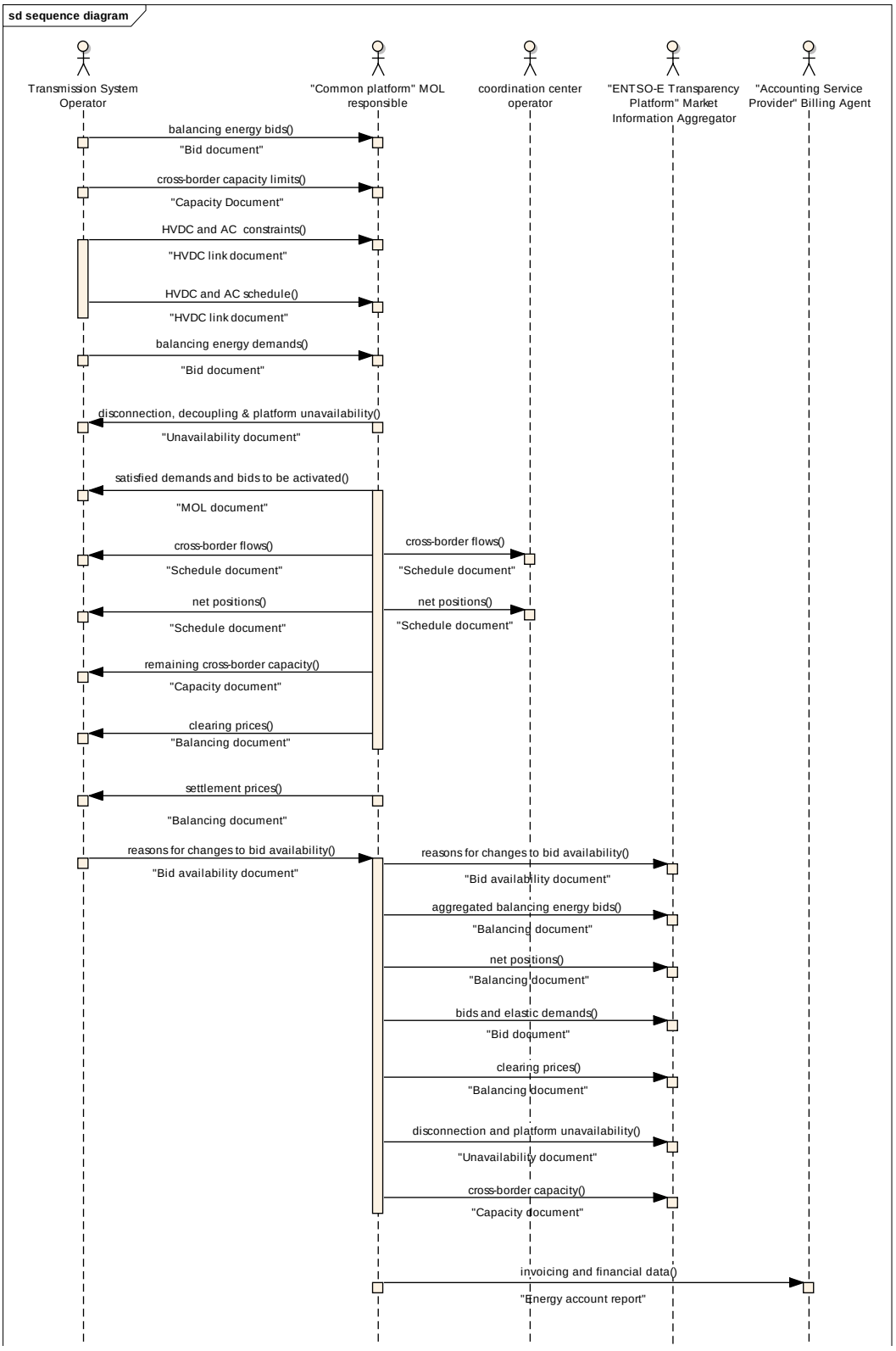

Figure 2: The manual frequency restoration reserve process in common platform - sequence diagram

The illustration above depicts file exchanges only. Real-time signaling is detailed in chapter 5.4.

The information flows under normal operating conditions are outlined in the following paragraphs. Data exchanges related to missing, rejected or conflicting data will be described in the mFRR operational handbook.

5.2.1 Balancing energy bids

Participating TSOs submit to the common platform all balancing energy bids for the standard mFRR product. Bids may be freely updated up until the TSO gate closure for balancing energy bids at T-12.

Changes in availability or in the offered volume of energy bids may be submitted at any time, however if submitted after T-10 such updates will be taken into account during subsequent direct activations only.

5.2.2 Cross-border capacity limits

The participating TSOs provide to the common platform the cross-border capacity limits (CBCLs) as well as any applicable technical profiles or net position limits. This information will be used by the AOF when selecting energy bids to satisfy the demands for scheduled and direct activations. In some cases participating TSOs may provide the CBCL through a regional nomination platform.

TSOs may submit updates to cross-border capacity limits at any point in time and such updates will be taken into account by the mFRR platform in the next execution of the AOF (for scheduled or direct activation, as applicable) according to specific business rules, depending on the point in time when the update was submitted and whether the AOF is in the process of generating new cross-border flows.

5.2.3 HVDC and AC constraints

Optionally, the TSOs may provide to the common platform constraints related to high voltage direct current (HVDC) lines. Such constraints may also be submitted for AC links for countertrading purposes.

5.2.4 HVDC and AC schedules

TSOs submitting constraints to the common platform for HVDC or AC lines must also provide the schedules for the lines. In some cases the schedule may be provided by a regional nomination platform or the operator of the line. The schedule must always be provided for a line having a deadzone.

5.2.5 Balancing energy demands

Participating TSOs submit to the common platform their demands for balancing energy for scheduled and direct activations, respectively, referring to a specific MTU period. While all demands for scheduled activations have to be submitted by the TSO gate closure at T-10 (relevant to the beginning of the specific MTU period), the demands for direct activations may subsequently be submitted at any point in time up until T+5 (relevant to the beginning of the specific MTU period).

A demand for direct activation may be updated up until the point in time when the AOF starts processing it.

5.2.6 Satisfied demands and bids to be activated

After execution of the AOF for scheduled and direct activations respectively, the common platform sends to each participating TSO the satisfied demands and the bids selected for activation.

5.2.7 Cross-border flows

The common platform informs the participating TSOs of the cross-border flows resulting from scheduled and direct activations, respectively. In some cases the resulting cross-border flows may be sent to regional nomination platform or operator of interconnector. Subject to

configuration in the common platform, the resulting cross-border flows may be communicated in an EDI document, a signal, or a combination of both.

SA CE monitor will also receive the cross-border flows on all internal and external borders of the SA CE.

5.2.8 Net position

Each TSO receives from the common platform the net position for its LFC area or scheduling areas as resulting from scheduled and direct activations, respectively. Subject to configuration in the common platform, the resulting net positions may be communicated in an EDI document, a signal, or a combination of both.

SA CE monitor will also receive the net positions for all areas within the SA CE.

5.2.9 Remaining cross-border capacity

The common platform notifies the participating TSOs of any cross-border capacity that remains unused after the optimization of the scheduled and direct activations, respectively.

5.2.10 Clearing prices

After completion of the optimization of scheduled activations, the common platform provides the clearing prices to the TSOs.

5.2.11 Settlement prices

At T+7, after completion of the optimization of scheduled activations for the following quarter hour, the common platform distributes to TSOs the settlement prices for direct activations.

5.2.12 Detailed reasons for changes to bid availability

By T+40 the latest, TSOs submit to the common platform the detailed reasons for changes to bid availability.

5.2.13 Outages

Whenever a TSO is disconnected or decoupled or the common platform becomes unavailable or experiences a failure, the common platform sends an outage document to all TSOs participating in the process.

5.2.14 Transparency reporting

The common platform submits clearing prices, all balancing energy bids and an aggregation of all balancing energy bids to the ENTSO-E central transparency platform for publication as required under TR article 17.1.f and EB GL articles 12.3.b&c and 12.3.e.

Elastic demands are reported as required by article 3.4 of the mFRR IF. Disconnection of a TSO and unavailability or failure of the mFRR platform are reported in accordance with article 3.11 of the mFRR IF. Detailed reasons for changes to bid availability are reported as required by articles 9.7 and 9.9 of the mFRR IF.

CBCLs and technical profiles and their adjustments due to operational security reasons are reported as required by articles 4.3 and 4.4 of the mFRR IF.

Net positions are reported as required by article 3.17 of the mFRR IF.

5.2.15 Invoicing and financial data

The common platform provides the financial information to the entity that will carry out financial settlement between the TSOs.

5.3 Business rules

5.3.1 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

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362 received document or rejecting it completely. Problem documents may be exchanged in
363 exceptional circumstances, as outlined by the operational handbook.

364 The business process described in this chapter will be executed separately for each region,
365 also referred to as virtual scheduling area. For manual frequency restoration reserves, the
366 following regions shall apply:

367 **Table 2 – Region codes**

Region	EIC code	Geographical scope
mFRR virtual scheduling area	10Y1001C--00085O	scheduling areas of all TSOs participating in the mFRR process

368

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

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

373 The mFRR platform will as far as technically feasible validate that submitted data complies with
374 the business rules and permitted combinations of attributes as articulated by this
375 implementation guide. Any data submission that fails such validation will be rejected by the
376 platform.

377 TSO shall not submit a higher version of a document before it has received acknowledgement
378 of previous version. This rule must be implemented locally. A data submission that violates this
379 rule may result in data not processed properly by the mFRR platform; bids may be ignored, for
380 example.

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5.3.2 Dependencies governing the ReserveBid_MarketDocument

The reserve bid market document is used to provide all the information related to bids and demands that are submitted to the common platform. It is also used to submit all bids to the ENTSO-E central transparency platform. See Table 4 for submissions to the Transparency platform

All demands from a given TSO (elastic, inelastic and tolerance bands) must be placed within a single document. Bids may be distributed among more than one document, at the discretion of the TSO. The TSO is responsible for ensuring unique bid identifiers (in the mRID attribute of BidTimeSeries) across all documents. Each TSO is expected to submit at least one bid for every MTU period. Bids and demands must be submitted in separate documents.

If TSO wants to update one or several bids or demands that have already been submitted to the platform, it is sufficient to include only the corresponding time series in a document with higher version. Unchanged bids and demands do not have to be repeated. A higher version of the Bid Document only updates the bids or demands contained within the document, while all other bids or demands not described by the higher version remain unchanged within the platfom.

Platform will reject bid document containing links to bids submitted in other documents that have not yet been positively acknowledged. Therefore, data provider should wait for acknowledgements of bid documents for earlier MTU periods before submitting bid document containing links to bids in those earlier MTU periods.

After TSO gate closure for submission of balancing energy bids at T-12, only updates to bid availability (i.e. status attribute), activation type (i.e. standard_MarketProduct.marketProductType attribute) and to the offered volume (i.e quantity.quantity attribute) are permitted.

If TSO wants to withdraw a single demand or bid that erroneously has already been submitted to the platform, it is necessary to submit a higher version of the same document and mark the bid or demand as unavailable in the Status attribute.

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

Table 3 – Reserve bid market document dependency table (submissions of bids and demands to common platform)

		BIDS	DEMANDS	XSD requirements
ReserveBid_MarketDocument				
mRID	Unique identification of the Bid Document	Used	Used	Mandatory
revisionNumber	Initial transmission should normally equal "1"	Used	Used	Mandatory
type	A37 = Reserve Bid document B21 = Reserve need document	A37	B21	Mandatory

process.processType	A47 = Manual frequency restoration reserve	Used	Used	Conditional
sender_MarketParticipant.mRID	EIC of the transmitting TSO	Used	Used	Mandatory
sender_MarketParticipant.marketRole.type	A04 = System Operator	Used	Used	Mandatory
receiver_MarketParticipant.mRID	EIC of common platform operator: 10X1001C--00009H	Used	Used	Mandatory
receiver_MarketParticipant.marketRole.type	A35 = MOL responsible	Used	Used	Mandatory
createdDateTime	Date and time of document creation	Used	Used	Mandatory
reserveBid_Period.timeInterval	The MTU period that the bids or demands within the document refer to. Always of 15 minutes length.	Used	Used	Mandatory
domain.mRID	EIC of region	Used	Used	Mandatory
subject_MarketParticipant.mRID	EIC of the transmitting TSO	Used	Used	Mandatory
subject_MarketParticipant.marketRole.type	A27 = Resource Provider	Used	Used	Mandatory

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BidTimeSeries				
mRID	Unique identification of the bid or demand assigned by the transmitting TSO	Used	Used	Mandatory
auction.mRID	Constant value of “AUCTION-mFRR”.	Used	Used	Mandatory
businessType	B74 = Offer B75 = Need B90 = Flexible need (also referred to as tolerance band)	B74 = Offer	B75 = Need B90 = Flexible need	Mandatory
acquiring_Domain.mRID	For bids it corresponds to the EIC identification of the region. For demands it corresponds to the EIC identification of the sending TSO’s area: Scheduling area, control area or an aggregation of scheduling areas belonging to different control areas (in case of aggregated demand)	Region	Used	Mandatory
connecting_Domain.mRID	For bids it corresponds to the EIC identification of the sending TSO’s scheduling area providing the reserves. Associated multipart, linked, conditional and exclusive bids must be associated with the same area. For demands it corresponds to the EIC identification of the region providing the reserves	Used	Region	Mandatory
provider_MarketParticipant.mRID	The balance service provider (BSP) identification.	May be used	Not used	Conditional
quantity_Measure_Unit.name	MAW = Megawatts	Used	Used	Mandatory

currency_Unit.name	EUR = Euro. This currency is only provided in the case of a demand where there is a price in the point class. For bids it is always populated.	Used	May be used	Conditional
price_Measure_Unit.name	MWH = Megawatt hours.	Not used	Not used	Conditional
divisible	A01 = quantity may be reduced to the minimum activation quantity by increments of the StepIncrementQuantity A02 = No reduction possible on the quantity	Used	A01	Mandatory
linkedBidsIdentification	The identification used to associate bids that are to be technically linked together. If the bid is not linked then the attribute is not used.	May be used. See note 1 below.	Not used	Conditional
multipartBidIdentification	The identification used to associate multipart bids. If bid with flowDirection.direction=A01 (Up) is accepted then all associated bids with lower price must also be accepted. If bid with flowDirection.direction=A02 (Down) is accepted then all associated bids with higher price must also be accepted. If the bid is not multipart then the attribute is not used.	May be used. See note 2 below.	Not used	Conditional
exclusiveBidsIdentification	The identification used to associate exclusive bids. If bid is accepted then all others with same identification shall be ignored. If the bid is not exclusive then the attribute is not used.	May be used. See note 2 below.	Not used	Conditional
blockBid	Not used. Redundant due to the existence of Divisible attribute.	Not used	Not used	Optional
status	A06 = Available A11 = Unavailable Associated multipart or exclusive bids must have the same status.	Used	Used	Conditional
priority	A sequential number indicating the priority of the bid in relation to other bids	Not used	Not used	Conditional
registeredResource.mRID	The identification of the resource used to provide the reserves	May be used	Not used	Conditional
flowDirection.direction	A01 = UP A02 = DOWN Refer to the price payment table for use in relation to price. Multipart bids shall have the same direction.	Used	Used	Mandatory
stepIncrementQuantity	Not used. For needs and divisible offers the input step increment has been harmonised to 1 MW.	Not used	Not used	Conditional
energyPrice_Measure_Unit.name	MWH = Megawatt hours This unit of measure is only provided in the case of a demand where there is a price in the point class. For bids it is always populated.	Used	Used for elastic demands	Conditional

marketAgreement.type	The type of the market agreement	Not used	Not used	Conditional
marketAgreement.mRID	Not used	Not used	Not used	Conditional
marketAgreement.createdDateTime	Time stamp used to identify the date and time that a specific offer was received.	Not used	Not used	Conditional
activation_ConstraintDuration.duration	Not used	Not used	Not used	Conditional
resting_ConstraintDuration.duration	Not used	Not used	Not used	Conditional
minimum_ConstraintDuration.duration	Not used	Not used	Not used	Conditional
maximum_ConstraintDuration.duration	Not used	Not used	Not used	Conditional
standard_MarketProduct.marketProductType	A05 = Standard mFRR product eligible for scheduled activation only A06 = Standard mFRR product eligible for direct activation only A07 = Standard mFRR product eligible for scheduled and direct activation For bids, any of the three values may be used. Associated multipart and exclusive bids must have the same value. A05 shall be used to indicate a demand for scheduled activation. A06 shall be used to indicate a demand for direct activation. A07 shall not be used for demands.	A05 A06 A07	A05 A06	Conditional
original_MarketProduct.marketProductType	Used when the bid has been converted into a standard product: A02 = Specific product A03 = Integrated scheduling process Associated multipart and exclusive bids must have the same value.	May be used	Not used	Conditional

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validity_Period.timeInterval	The period when the bid can be activated	Not used	Not used	Optional
procuredFor_MarketParticipant	EIC code of TSO for which bid was procured. Must be populated when the capacity was procured on behalf of other TSO. Not populated otherwise. Associated multipart, or exclusive bids must have the same value. See note 3 below.	May be used	Not used	Conditional
sharedWith_MarketParticipant	EIC code of TSO sharing the reserve. Must be populated when capacity constitutes a shared reserve. Not populated otherwise. Associated multipart or exclusive bids must have the same value. See note 3 below.	May be used	Not used	Conditional

Note 1: The attributed linkedBidIdentification may be used to associate technically linked bids in different MTU periods. Within a given MTU period, there may not be more than one bid having the same value in linkedBidIdentification. The following rule for technically linked bids will always be applied by the platform to bids having the same value in linkedBidIdentification: If bid in MTU-1 was subject to direct activation the bid in MTU0 is not available.

Note 2: A given bid can not be exclusive and multipart at the same time. Therefore, the attributes exclusiveBidIdentification and multipartBidIdentification cannot be used in combination. It is the responsibility of data provider to ensure uniqueness of exclusiveBidsIdentification and multipartBidIdentification across all documents and MTU periods. It is permitted to have technical links between exclusive and multipart bids in different MTU periods. Therefore, the attribute exclusiveBidIdentification may be combined with attribute linkedBidIdentification and the attribute multipartBidIdentification may be combined with attribute linkedBidIdentification.

All components of a multipart bid (i.e. having the same value in multipartBidIdentification) with a technical link to a bid in another MTU period must have the same value in the linkedBidIdentification attribute. The same applies to all components of an exclusive bid (i.e. having the same value in exclusiveBidsIdentification) with a technical link to a bid in another MTU period.

Note 3: The attributes procuredFor_MarketParticipant and sharedWith_MarketParticipant are mutually exclusive. There may be several instances of sharedWith_MarketParticipant - this is the case when the reserve is shared among three or more TSOs.

Period				
timeInterval	A time interval that coincides with the quarter hour described in reserveBid_Period.timeInterval.	Used	Used	Mandatory

resolution	PT15M	Used	Used	Mandatory
Point				
position	Position within the time interval	Used	Used	Mandatory
quantity.quantity	Quantity offered or needed with 1 MW precision.	Quantity offered	Quantity needed	Mandatory
minimum_Quantity.quantity	Required if divisible = A01. Precision is 1 MW.	May be used	0	Conditional
price.amount	Not used	Not used	Not used	Conditional
energy_Price.amount	The price of the product. Precision is 0.01. Components of a multipart bid must have different prices. Note: Refer to the Price payment table for establishing who is paid.	Used	Used for elastic demands	Conditional

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

Reason (associated with BidTimeSeries)	Optionally exactly one instance of Reason may be associated with the BidTimeSeries.	May be used	May be used	**Conditional**
code	For a bidTimeSeries with status = A11 (Unavailable) one of the following codes may be used to specify the activation purpose of a bid: B55 = Because of redispatching B56 = Because of countertrading B57 = Because of ther remedial action Exceptionally the code B18 = Failure may be used to indicate that a bid or demand has been submitted erroneously. Associated multipart or exclusive bids must have the same value. If the purpose of a demand is other than for balancing purposes the code A96 = Technical constraint shall be used	May be used. See note 4 below.	May be used	Conditional
text	Textual information provided by the TSO	Not used	Not used	

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Note 4: The normal reasons for bid unavailability will be conveyed by the dedicated BidAvailability_MarketDocument described in chapter 5.3.10.

Linked_BidTimeSeries (associated with BidTimeSeries)	May be used to indicate conditional dependencies upon bids in earlier MTU periods	May be used	Not used	**Conditional**
mRID	mRID of a simple bid in MTU-1 or MTU-2	Used	Not used	Mandatory
status	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	Used	Not used	Conditional

Multipart or exclusive bids may not be conditionally linked. Therefore, no instances of Linked_BidTimeSeries are permitted when multipartBidIdentification or exclusiveBidsIdentification have been populated. Conditional and technical links between two bids are permitted however in such case both must be simple bids.

For a simple bid there may be up to six instances of Linked_BidTimeSeries, with no more than three instances referring to bids in MTU-1 and no more than three instances referring to bids in MTU-2. The referenced bid in MTU-1 or MTU-2 must always be a simple bid. There may not be more than one link to any given bid, hence the mRIDs must be unique.

The mFRR platform will apply the following rules:

- the bid in MTU0 becomes completely unavailable when at least one of the conditional links indicate unavailability due to the outcome of the linked bid in MTU-1 or MTU-2
- the bid in MTU0 becomes unavailable for direct activation when at least one of the conditional links indicate unavailability for direct activation due to the outcome of the linked bid in MTU-1 or MTU-2

Table 4 provides the dependencies for the reserve bid market document when the common platform submits bids to the ENTSO-E transparency platform as required by EB GL articles 12.3.b&c and elastic demands as required by the mFRR IF article 3.4. A separate document will be sent for every area.

Table 4 – Reserve bid market document dependency table (balancing energy bids and elastic demands submitted to transparency platform)

		BIDS	**DEMANDS**	**XSD requirements**
ReserveBid_MarketDocument				
mRID	Unique identification of the Bid Document	Used	Used	Mandatory

revisionNumber	Initial transmission should normally equal "1"	Used	Used	Mandatory
type	A37 = Reserve Bid document	Used	Used	Mandatory
process.processType	A47=Manual frequency restoration reserve	Used	Used	Conditional
sender_MarketParticipant.mRID	EIC of common platform operator: 10X1001C--00009H	Used	Used	Mandatory
sender_MarketParticipant.marketRole.type	A35 = MOL responsible	Used	Used	Mandatory
receiver_MarketParticipant.mRID	10X1001A1001A450 = EIC of the ENTSO-E transparency platform	Used	Used	Mandatory
receiver_MarketParticipant.marketRole.type	A32 = Market information aggregator	Used	Used	Mandatory
createdDateTime	Date and time of document creation	Used	Used	Mandatory
reserveBid_Period.timeInterval	The duration of the MTU period (15 minutes)	Used	Used	Mandatory
domain.mRID	EIC of the region	Used	Used	Mandatory
subject_MarketParticipant.mRID	EIC of common platform Operator	Used	Used	Mandatory
subject_MarketParticipant.marketRole.type	A35 = MOL responsible	Used	Used	Mandatory

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BidTimeSeries				
mRID	Unique identification of the bid or demand assigned by the transmitting TSO	Used	Used	Mandatory
auction.mRID	Constant value of “AUCTION-mFRR”.	Used	Used	Mandatory
businessType	B74 = Offer B75 = Need	B74 = Offer	B75 = Need	Mandatory
acquiring_Domain.mRID	For bids it corresponds to the EIC identification of the region For demands it corresponds to the EIC identification of the scheduling area, control area or an aggregation of scheduling areas belonging to different control areas (in case of aggregated demand)	Region	Used	Mandatory
connecting_Domain.mRID	For bids it corresponds to the EIC identification of the scheduling area providing the reserves.	Used	Region	Mandatory

	For demands it corresponds to the EIC identification of the region providing the reserves			
provider_MarketParticipant.mRID	The balance service provider (BSP) identification	Not used	Not used	Conditional
quantity_Measure_Unit.name	MAW = Megawatts	Used	Used	Mandatory
currency_Unit.name	EUR = Euro	Used	Used	Conditional
price_Measure_Unit.name	MWH = Megawatt hours	Not used	Not used	Conditional
divisible	A01 = quantity may be reduced to the minimum activation quantity A02 = No reduction possible on the quantity	A01 or A02	A01	Mandatory
linkedBidsIdentification	Not used	Not used	Not used	Conditional
multipartBidIdentification	Populated if the bid is multipart	May be used	Not used	Conditional
exclusiveBidsIdentification	Populated if the bid is exclusive	May be used	Not used	Conditional
blockBid	Not used. Redundant due to the existence of Divisible attribute.	Not used	Not used	Optional
status	A06 = Available A11 = Unavailable	Used	Not used	Conditional
priority	A sequential number indicating the priority of the bid in relation to other bids	Not used	Not used	Conditional
registeredResource.mRID	The identification of the resource used to provide the reserves	Not used	Not used	Conditional
flowDirection.direction	A01 = UP A02 = DOWN Refer to the price payment table for use in relation to price	Used	Used	Mandatory
stepIncrementQuantity	Not used. For demands and divisible bids the input step increment has been harmonised to 1 MW.	Not used	Not used	Conditional
energyPrice_Measure_Unit.name	MWH = Megawatt hours	Used	Used	Conditional
marketAgreement.type	The type of the market agreement	Not used	Not used	Conditional
marketAgreement.mRID	Not used	Not used	Not used	Conditional

marketAgreement.createdDateTime	Time stamp used to identify the date and time that a specific offer was received.	Not used	Not used	Conditional
activation_ConstraintDuration.duration	Not used	Not used	Not used	Conditional
resting_ConstraintDuration.duration	Not used	Not used	Not used	Conditional
minimum_ConstraintDuration.duration	Not used	Not used	Not used	Conditional
maximum_ConstraintDuration.duration	Not used	Not used	Not used	Conditional
standard_MarketProduct.marketProductType	The type of product that the bid or demand refers to: A05 = Standard mFRR product eligible for scheduled activation only A07 = Standard mFRR product eligible for scheduled and direct activation See note 1 below.	A05 A07	A05	Conditional
original_MarketProduct.marketProductType	Used when the bid refers to a specific product that has been converted into a standard product: A02 = Specific product A03 = Integrated scheduling process	May be used	Not used	Conditional
validity_Period.timeInterval	The period when the bid can be activated	Used	Not used	Conditional
technicalConditionality_MarketObjectStatus		Not used	Not used	Conditional
commercialConditionality_MarketObjectStatus		Not used	Not used	Conditional
procuredFor_MarketParticipant		Not used	Not used	Conditional
sharedWith_MarketParticipant		Not used	Not used	Conditional

Period				
timeInterval	A time interval that coincides with the MTU period	Used	Used	Mandatory
resolution	PT15M	Used	Used	Mandatory
Point				
position	Position within the time interval	Used	Used	Mandatory
quantity.quantity	Quantity offered or requested with 1 MW precision	Used	Used	Mandatory
minimum_Quantity.quantity		Not used	Not used	Conditional
price.amount		Not used	Not used	Conditional
energy_Price.amount	The price of the product. Precision is 0.01. Refer to the Price payment table for establishing who is paid.	Used	Used	Conditional
AvailableMBA_Domain (Associated with time series)	Not used	Not used	Not used	**Conditional**
mRID				
Reason (associated with time series)	May be used to specify the activation purpose of unavailable bids. See also note 2 below.	May be used	Not used	**Conditional**
code	For a bidTimeSeries with status = A11 (Unavailable) one of the following codes may be used to specify the activation purpose of a bid: B55 = Because of redispatching B56 = Because of countertrading B57 = Because of ther remedial action	Used	Not used	
text	Textual information provided by the TSO	Not used	Not used	

Note 1: Bids that were marked by TSOs as eligible for direct activation only will be reported with their original activation type A07 = Standard mFRR product eligible for scheduled and direct activation, in order to accurately reflect the bid as originally submitted by the BSP.

Note 2: Reason for bid unavailability will be provided in the dedicated BidAvailability_MarketDocument described in chapter 5.3.10.

Linked_BidTimeSeries (associated with BidTimeSeries)	Not used	Not used	Not used	**Conditional**
mRID		Not used	Not used	Mandatory
status		Not used	Not used	Conditional

5.3.3 Determination of final bid availability within mFRR platform

The final availability of a bid for scheduled and/or direct activation may potentially be influenced by up to three different mechanisms, which the mFRR platform will apply in the following descending order of precedence:

1. Unavailability as foreseen by EB GL art. 29(14), represented by status attribute in BidTimeSeries
2. Activation type, represented by attribute standard_MarketProduct.marketProductType
3. Dependencies on associated bids in previous MTU periods due to conditional and/or technical linking, represented by linkedBidIdentification and Linked_BidTimeSeries

If a bid is subject to both conditional and technical linking and those links would yield different outcomes, the most restrictive result shall apply.

5.3.4 Dependencies governing the Capacity_MarketDocument

The capacity market document is used to provide the cross-border capacity limits, net position limits and technical profiles during exactly one MTU period. For a given border or area, values must be provided for both directions in the same file. It is also used by the common mFRR platform to inform the TSOs of any remaining cross-border capacity.

For a given MTU period, the remaining cross-border capacity resulting from scheduled and direct activations, respectively, shall be sent in separate documents. The remaining cross-border capacity from subsequent direct activations for the same MTU period will be sent as higher versions of the document that contained the remaining capacity from the first direct activation.

Data consumer has a choice between receiving the remaining cross-border capacity with or without ramping. When the document with the remaining cross-border capacity describes the ramping, it may partially cover up to three MTU periods for scheduled activations and for direct activations partially up to four MTU periods. When the document does not describe ramping, it will cover exactly one MTU period for scheduled activation and two MTU periods for direct activations.

The Period.timeInterval shall not bridge the change of CET/CEST day - separate documents will be output as necessary.

The capacity document will also be used to submit cross-border capacity limits and technical profiles to the transparency platform.

Table 5 – capacity market document dependency table

		Use	XSD requirements
Capacity_MarketDocument			
mRID	Unique identification of the Capacity Document	Used	Mandatory
revisionNumber	Initial transmission should normally equal "1"	Used	Mandatory
type	A31 = Agreed capacity (used when submitting cross-border capacity limits, net position limits or technical profiles to common platform) A26 = Capacity document (used to transmit remaining cross-border capacity from the common platform to the TSOs)	Used	Mandatory
process.processType	A47 = Manual frequency restoration reserve	Used	Mandatory
sender_MarketParticipant.mRID	EIC of the Transmission System Operator when type = A31 EIC of the common platform Operator when the DocumentType = A26: 10X1001C--00009H	Used	Mandatory
sender_MarketParticipant.marketRole.type	A04 = System operator when submitting documents of type = A31 to common platform A35 = MOL responsible when type = A26 and when common platform submits documents of type = A31 to central transparency platform	Used	Mandatory

		Use	XSD requirements
receiver_MarketParticipant.mRID	EIC of the common platform Operator when submitting documents of type = A31 to common platform: 10X1001C--00009H EIC of the Transmission System Operator when type = A26 EIC of the central transparency platform when common platform reports documents of type = A31: 10X1001A1001A450	Used	Mandatory
receiver_MarketParticipant.marketRole.type	A35 = MOL responsible Operator when type = A31 A04 = System operator when type = A26 A32 = Market information aggregator when common platform reports documents of type A31 to central transparency platform	Used	Mandatory
createdDateTime	Date and time of document creation	Used	Mandatory
Period.timeInterval	The MTU period described (15 minutes) when type = A31. From beginning of ramp up until end of ramp down when type = A26 and ramps included. The MTU period(s) described (15 minutes for SA and 30 minutes for DA) when type = A26 and ramps excluded	Used	Mandatory
domain.mRID	EIC of the region	Used	Mandatory

TimeSeries			
mRID	The unique identification of the time series within the document	Used	Mandatory
businessType	A26 = ATC	Used	Mandatory
product	8716867000016 = active power	Used	Mandatory
in_Domain.mRID	EIC identification of the area where the power is being put. Shall contain the TSO's area when submitting net position limits on import. Shall contain the region when submitting net position limits on export.	Used	Mandatory
out_Domain.mRID	EIC identification of the area where the power is coming from. Shall contain the region when submitting net position limits on import. Shall contain the TSO's area when submitting net position limits on export.	Used	Mandatory
measure_Unit.name	MAW = Megawatts	Used	Mandatory
auction.mRID	The identification of an auction specification	Not used	Conditional
auction.category	The category under which capacity is classified	Not used	Conditional
curveType	A01 = Sequential fixed size block, when type = A31 A03 = variable sized block when type = A26 and ramps excluded A05 = non-overlapping breakpoint, when type = A26 and ramps included	Used	Mandatory
connectingLine_RegisteredResource.mRID	The identification of a set of lines that connect two areas together. This is only used when specific tie lines have to be identified.	May be used	Conditional

		Use	XSD requirements
Series_Period			
timeInterval	A time interval of the same length as the Period.timeInterval	Used	Mandatory
resolution	PT15M when type = A31 PT1M when type = A26	Used	Mandatory
Point			
position	Position within the time interval	Used	Mandatory
quantity	When type = A31: Quantity of limit with 1 MW precision. Negative values are not permitted. When type = A26: Quantity of remaining capacity with 0.1 MW precision.	used	Mandatory
Reason (associated with header)	Exactly one instance of Reason class may be included when type = A31 to indicate adjustment due to operational security.	May be used	**Conditional**
code	B47 = Operational security constraints	Used	
text	May be populated to provide additional explanation or justification in free text format	May be used	

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5.3.5 Dependencies governing the HVDCLink_marketDocument

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

Table 6 – HVDC link market document dependency table

		Constraint	Schedule	XSD requirements
HVDCLink_MarketDocument				
mRID	Unique identification of the HVDC link market document	Used	Used	Mandatory
revisionNumber	Initial transmission should normally equal "1"	Used	Used	Mandatory
type	The coded type of a document. The document type describes the principal characteristic of the document.	A99 = HVDC link constraints	B02 HVDC schedule	Mandatory
process.processType	A47 = Manual frequency restoration reserve	Used	Used	Mandatory
sender_MarketParticipant.mRID	EIC of the Transmission System Operator	Used	Used	Mandatory
sender_MarketParticipant.marketRole.type	A04 = System operator	Used	Used	Mandatory
receiver_MarketParticipant.mRID	EIC of the common platform Operator: 10X1001C--00009H	Used	Used	Mandatory
receiver_MarketParticipant.marketRole.type	A35 = MOL responsible	Used	Used	Mandatory
createdDateTime	Date and time of document creation	Used	Used	Mandatory
schedule_Period.timeInterval	The MTU period covered by the schedule (15 minutes)	Used	Used	Mandatory
docStatus	A01 = Intermediate A02 = Final	Used	Used	Mandatory
domain.mRID	EIC of the region	Used	Used	Mandatory

TimeSeries		Constraint	Schedule	
mRID	The unique identification of the time series within the document	Used	Used	Mandatory
businessType	B30 = HVDC settings	Used	Used	Mandatory
product	8716867000016 = active power	Used	Used	Mandatory
objectAggregation	A09 = DC link	Used	Used	Mandatory
connectingLine_RegisteredResource.mRID	The identification of the HVDC link or group of HVDC links. May also be used to identify an AC link. In case of AC link with no EIC code the attribute may be left empty with no value as follows: <connectingLine_RegisteredResource.mRID/>	Used	Used	Mandatory
hVDCMode_AttributeInstanceComponent.attribute	A01 = HVDC set point schedule	Used	Used	Conditional
out_Domain.mRID	EIC identification of the area where the product is being extracted	Used	Used	Conditional
in_Domain.mRID	EIC identification of the area where the product is being delivered	Used	Used	Conditional
measurement_Unit.name	MAW= Megawatts	Used	Used	Mandatory
curveType	A01 = Sequential fixed size block	Used	Used	Conditional
minimumExchange_Quantity.quantity	The minimum value of a power exchange range between the In_Domain and the Out_Domain of the timeseries.	Not used	Not used	Conditional
maximumExchange_Quantity.quantity	The maximum value of a power exchange range between the In_Domain and the Out_Domain of the timeseries.	Not used	Not used	Conditional

Series_Period				
timeInterval	A time interval of the same length as the schedule_Period.timeInterval (15 minutes)	Used	Used	Mandatory
resolution	PT15M	Used	Used	Mandatory

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Point		Constraint	Schedule	
position	Position within the time interval	Used	Used	Mandatory
quantity	The value of the scheduled product. One of the directions must equal zero (net schedule). Precision is 1 MW.	Not used	Used	Conditional
minimum_Quantity.quantity	The minimum value of power exchange on the HVDC line (or AC link) for a scheduled point. Precision is 1 MW. Shall be zero if constraints are provided in both directions for a given position.	Used	Not used	Conditional
maximum_Quantity.quantity	The maximum value of power exchange on the HVDC line (or AC link) for a scheduled point. Precision is 1 MW.	Used	Not used	Conditional
optimum_Quantity.quantity	The value of the optimum power exchange on the HVDC line for a scheduled point.	Not used	Not used	Conditional

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5.3.6 Dependencies governing the MeritOrderList_MarketDocument

The merit order list market document is used by the common platform to provide to TSOs all the information related to the bids that have been accepted as well the demands that have been satisfied. Document will contain only bids and demands submitted by the given TSO. Activated and partially activated bids will be sent in one file. Rejected bids will be sent in a second file.

Table 7 – merit order list market document dependency table

		BIDS	DEMANDS	XSD requirements
MeritOrderList_MarketDocument				
mRID	Unique identification of the MOL Document	Used	Used	Mandatory
revisionNumber	Initial transmission should normally equal "1"	Used	Used	Mandatory
type	B23 = Offers to be activated (activated bids and all demands) A43 = MOL document (rejected bids)	B23 A43	B23	Mandatory
process.processType	A60 = mFRR with scheduled activation A61 = mFRR with direct activation	Used	Used	Conditional
sender_MarketParticipant.mRID	EIC of the common Operator: 10X1001C--00009H	Used	Used	Mandatory
sender_MarketParticipant.marketRole.type	A35 = MOL responsible	Used	Used	Mandatory
receiver_MarketParticipant.mRID	EIC of the Transmission System Operator	Used	Used	Mandatory
receiver_MarketParticipant.marketRole.type	A04 = System operator	Used	Used	Mandatory
createdDateTime	Date and time of document creation	Used	Used	Mandatory
period.timeInterval	The duration of the activation period: 15 minutes for scheduled activation and up to 30 minutes for direct activation)	Used	Used	Mandatory
domain.mRID	EIC of the region	Used	Used	Conditional

BidTimeSeries				
marketAgreement.mRID	Identification of the bid or the demand as indicated by the mRID of the BidTimeSeries in the ReserveBid_MarketDocument received from the TSO.	Used	Used	Mandatory
marketAgreement_createdDateTime	The timestamp of when the bid was received	Not used	Not used	Conditional
priority	A sequential number indicating the priority of the bid in relation to other bids.	Not used	Not used	Conditional
resourceProvider_MarketParticipant.mRID	The balance service provider (BSP) identification.	May be used	Not used	Conditional
registeredResource.mRID	The identification of the resource used to provide the reserves.	May be used	Not used	Conditional
acquiring_Domain.mRID	For bids it corresponds to the EIC identification of the region. For demands it corresponds to the EIC identification of the receiving TSO's area.	region	Receiving TSO's area	Mandatory
connecting_Domain.mRID	for bids it corresponds to the EIC identification of the receiving TSO's scheduling area providing the reserves. for demands it corresponds to the EIC identification of the region providing the reserves	Receiving TSO's area	region	Mandatory
auction.mRID	Identification of auction as defined in the reserve bid document. Constant value of "AUCTION-mFRR".	Used	Used	Mandatory
businessType	B74 = Offer B75 = Need B90 = Flexible need	B74 = Offer	B75 = Need B90 = Flexible need	Mandatory
bid_Period.timeInterval	The activation period: Duration is fixed to 15 minutes for scheduled activation and from 15 up to 30 minutes for direct activation.	Used	Used	Mandatory
quantity_Measure_Unit.name	MAW = Megawatts	Used	Used	Mandatory
currency_Unit.name	EUR = Euro	Used	Used	Conditional
price_Measurement_Unit.name	MWH = Megawatt hours	Used	Used	Conditional
auction.paymentTerms	A01 = Pay as bid A02 = Pay as cleared	Not used	Not used	Conditional
energyPrice_Measurement_Unit.name	MWH = Megawatt hours	Not used	Not used	Conditional

direction	A01 = UP A02 = DOWN Refer to the price payment table for use in relation to price.	Used	Used	Mandatory
minimumActivation_Quantity.quantity	The minimum quantity that can be activated	Not used	Not used	Conditional
stepIncrement_Quantity.quantity	Not used. For demands and divisible bids the output step increment has been harmonised to 1 MW.	Not used	Not used	Conditional
marketObjectStatus.status	A06 = available (the bid has not been selected for activation) A10 = ordered (i.e. common platform has requested that the TSO activates a bid) A11 = unavailable (the bid is no longer available for activation) A33 = not satisfied (i.e. The demand cannot be satisfied by the common platform)	A06 A10 A11	A10 A33	Mandatory

Period				
timeInterval	The activation period. Shall be the same value as in bid_Period.timeInterval	Used	Used	Mandatory
resolution	Equivalent to the length of the bid's activation period. For scheduled activation: PT15M For direct activation: Integer value from PT15M up to PT30M	Used	Used	Mandatory

Point				
position	Position within the time interval. As there shall always be exactly one point within the Period, value shall always be 1.	Used	Used	Mandatory
quantity.quantity	Quantity offered or needed. Precision is 1 MW.	Quantity offered	Quantity needed	Mandatory
price.amount	The price for activating the product. Precision is 0.01.	Used when bid accepted	Used when demand satisfied	Conditional
energy_Price.amount	For bids: The offered price. For elastic demands: The requested price. Precision is 0.01.	Used	Used when elastic demand	Conditional

activated_Quantity.quantity	Quantity activated. Precision is 1 MW.	Quantity to be activated	Quantity for which activation has been requested	Conditional

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Reason (associated with time series)		Not used	Not used	**Conditional**
code		Not used	Not used	Mandatory
text		Not used	Not used	Conditional

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5.3.7 Price payment table

Aligning with EB GL art. 47, Table 8 clarifies whether TSO or Balancing Service Provider (BSP) should pay the price indicated.

Table 8 – price payment table

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

5.3.8 Dependencies governing the Schedule_MarketDocument

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

For a given MTU period, the XB flows and net positions resulting from scheduled and direct activations, respectively, shall be sent in separate documents.

The resulting XB flows from the optimization for scheduled activation in MTU1 will be aggregated on top of the resulting flows from the direct activations during MTU0.

The resulting net positions from the optimization for scheduled activation in MTU1 will be aggregated on top of the net positions from the direct activations during MTU0.

The resulting XB flows from an optimization for direct activation in MTU0 will be aggregated on top of the resulting flows from the scheduled activation for MTU0 and any earlier optimizations for direct activations in MTU0 or MTU-1. The resulting flows from subsequent direct activations for the same MTU period will be sent as higher versions of the same document.

The resulting net positions from an optimization for direct activation in MTU0 will be aggregated on top of the resulting net positions from the scheduled activation for MTU0 and any earlier optimizations for direct activations in MTU0 or MTU-1. The resulting net positions from subsequent direct activations for the same MTU period will be sent as higher versions of the same document.

519 Data consumer has a choice between receiving the resulting cross-border flows and net positions with or without ramping. When the documents with
520 the resulting cross-border flows and net positions sent to TSOs describe the ramping, they may partially cover up to three MTU periods for schedu led
521 activations and for direct activations partially up to four MTU periods. When the documents do not describe ramping, they will cover exactly one MTU
522 period for scheduled activation and two MTU periods for direct activations.

523 The schedule_Time_Period.timeInterval shall not bridge the change of CET/CEST day. Separate documents will be output as necessary.

524 **Table 9 – schedule market dependency table**

		Use	XSD requirements
Schedule_MarketDocument			
mRID	Unique identification of the Schedule Document	Used	Mandatory
revisionNumber	Initial transmission should normally equal "1"	Used	Mandatory
type	A30 = Cross border schedule (for cross-border flows) B17 = Aggregated netted external TSO schedule document (for net positions)	Used	Mandatory
process.processType	A47 = Manual frequency restoration reserve	Used	Mandatory
process.ClassificationType	A01 = Detail type	Used	Mandatory
sender_MarketParticipant.mRID	EIC of the common platform Operator: 10X1001C--00009H	Used	Mandatory
sender_MarketParticipant.marketRole.type	A35 = MOL responsible	Used	Mandatory
receiver_MarketParticipant.mRID	EIC of the Transmission System Operator:	Used	Mandatory
receiver_MarketParticipant.marketRole.type	A04 = System operator A16 = coordination center operator	Used	Mandatory
createdDateTime	Date and time of document creation	Used	Mandatory
schedule_Time_Period.timeInterval	From start of ramp up until end of ramp down when ramps included The MTU period(s) described (15 minutes for SA and 30 minutes for DA) when ramps excluded	Used	Mandatory
domain.mRID	EIC of the region	Used	Mandatory
subject_MarketParticipant.mRID	EIC of the receiving party	Used	Mandatory
subject_MarketParticipant.marketRole.type	A04 = System Operator A16 = coordination center operator	Used	Mandatory
matching_Time_Period.timeInterval	Matching period for the schedule document	Not used	Conditional

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TimeSeries			
mRID	The unique identification of the time series within the document	Used	Mandatory
version	The version of the time series. It must always be the same as the version of the document	Used	Mandatory
businessType	A45=Scheduled activated reserves B09 = Net position	Used	Mandatory
product	8716867000016 = active power	Used	Mandatory
objectAggregation	A01 = Area	Used	Mandatory
in_Domain.mRID	EIC identification of the area where the power is being put	Used	Conditional
out_Domain.mRID	EIC identification of the area where the power is coming from	Used	Conditional
marketEvaluationPoint.mRID	Identification of a resource	Not used	Conditional
in_MarketParticipant.mRID	identification of a market participant putting the power into the area	May be used when type=B17	Conditional
out_MarketParticipant.mRID	Identification of a market participant that is taking the power from the area	May be used when type=B17	Conditional
marketAgreement.type	Identification of the type of agreement	Not used	Conditional
marketAgreement.mRID	Identification of the reserve contract	Not used	Conditional
connectingLine_RegisteredResource.mRID	Provided in case there are multiple interconnectors	May be used when type=A30	Conditional
measurement_Unit.name	MAW = Megawatts	Used	Mandatory
curveType	A03 = variable sized block when ramps excluded A05 = non-overlapping breakpoint when ramps included	Used	Mandatory

526

Series_Period			
timeInterval	A time interval within the schedule_Time_Period.timeInterval	Used	Mandatory
resolution	PT1M	Used	Mandatory

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

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

Notes:

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

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

5.3.9 Dependencies governing the Balancing_MarketDocument

The balancing market document covers requirements for transmission of the clearing prices from the common platform to TSOs and the ENTSO-E transparency platform, as well as for transmitting the settlement prices for direct activations to TSOs. The same document will also be used for transmitting to the ENTSO-E transparency platform the aggregated balancing energy bids and the net positions.

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

Table 10 provides the dependencies for the balancing market document when the common platform sends the clearing prices to the TSO.

Table 11 provides the dependencies for submission of settlement prices to TSO.

Table 12 provides the dependencies for the balancing market document when the common platform sends clearing prices to the ENTSO-E transparency platform as required by TR article 17.1.f.

Table 13 provides the dependencies for the balancing market document when the common platform sends aggregated balancing energy bids and net positions to the ENTSO-E transparency platform as required by EB GL article 12.3.e and mFRR IF article 3.17.

Table 10 – Balancing market document dependency table (submission of clearing prices to TSO)

		Use	XSD requirements
Balancing_MarketDocument			
mRID	Unique identification of the balancing market Document	Used	Mandatory
revisionNumber	Initial transmission should normally equal "1"	Used	Mandatory
type	B24 = Clearing price	Used	Mandatory
process.processType	A60 = mFRR with scheduled activation	Used	Mandatory
sender_MarketParticipant.mRID	EIC of the common platform Operator: 10X1001C--00009H	Used	Mandatory
sender_MarketParticipant.marketRole.type	A35 = MOL responsible	Used	Mandatory
receiver_MarketParticipant.mRID	EIC of the Transmission System Operator	Used	Mandatory
receiver_MarketParticipant.marketRole.type	A04 = System operator	Used	Mandatory
createdDateTime	Date and time of document creation	Used	Mandatory
docStatus	A01 = Intermediate A02 = Final	Not used	Conditional
Area.Domain.mRID	area described by the document	Used	Conditional
allocationDecision_DateAndOrTime	Date and time when the decision on allocation was made	Not used	Optional
Period.timeInterval	The duration of the MTU period covered by the document. (15 minutes)	Used	Mandatory
TimeSeries			
mRID	Unique identification of the time series	Used	Mandatory
businessType	A97 = Manual frequency restoration reserve	Used	Mandatory
acquiring_Domain.mRID		Not used	Conditional

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

553

Series_Period			
timeInterval	A time interval equivalent to the MTU period (15 minutes)	Used	Mandatory
resolution	PT15M	Used	Mandatory

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

Financial_Price (associated with Point)		**Not used**	**Conditional**
amount		Not used	Mandatory
Direction		Not used	Conditional

554 **Table 11 – Balancing market document dependency table (submission of Settlement**
555 **prices to TSO)**

		Use	XSD requirements
Balancing_MarketDocument			
mRID	Unique identification of the balancing market Document	Used	Mandatory
revisionNumber	Initial transmission should normally equal "1"	Used	Mandatory
type	A84 = activated balancing price	Used	Mandatory
process.processType	A61= mFRR with direct activation	Used	Mandatory
sender_MarketParticipant.mRID	EIC of the common platform Operator: 10X1001C--00009H	Used	Mandatory
sender_MarketParticipant.marketRole.type	A35 = MOL responsible	Used	Mandatory
receiver_MarketParticipant.mRID	EIC of the Transmission System Operator	Used	Mandatory
receiver_MarketParticipant.marketRole.type	A04 = System operator	Used	Mandatory
createdDateTime	Date and time of document creation	Used	Mandatory
docStatus	A01 = Intermediate A02 = Final	Not used	Conditional
area.Domain.mRID	area described by the document	Used	Conditional
allocationDecision_DateAndOrTime	Date and time when the decision on allocation was made	Not used	Optional
period.timeInterval	The duration of the MTU periods covered by the document. (30 minutes)	Used	Mandatory

TimeSeries			
mRID	Unique identification of the time series	Used	Mandatory
businessType	A97 = Manual frequency restoration reserve	Used	Mandatory
acquiring_Domain.mRID		Not used	Conditional
connecting_Domain.mRID		Not used	Conditional
type_MarketAgreement.type	Identification of the procurement time unit.	Not used	Conditional
standard_MarketProduct.marketProductType	Used when the reported quantities refer to standard products: A01 = Standard product	Used	Conditional
original_MarketProduct.marketProductType		Not used	Conditional
mktPSRType.psrType	Identification of the source type of the reserve	Not used	Conditional
flowDirection.direction	A01 = Up A02 = Down	Used	Conditional
currency_Unit.name	EUR = Euro	Used	Conditional
quantity_Measure_Unit.name	MAW = Megawatts	Not used	Conditional
price_Measure_Unit.name	MWH= Megawatt hours	Used	Conditional
curveType	A01 = Sequential fixed block	Used	Conditional
cancelledTS	If the data for a time series has been cancelled this attribute shall be specified with A01 = Yes	Not used	Conditional

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556

Series_Period			
timeInterval	A time interval equivalent to the MTU periods described (30 minutes)	Used	Mandatory
resolution	PT15M	Used	Mandatory

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

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

557

558 **Table 12 – Balancing market document dependency table (submission of clearing**
559 **prices to transparency platform)**

		Use	**XSD requirements**
Balancing_MarketDocument			
mRID	Unique identification of the balancing market Document	Used	Mandatory
revisionNumber	Initial transmission should normally equal "1"	Used	Mandatory
type	A84 = activated balancing price	Used	Mandatory
process.processType	A60 = mFRR with scheduled activation A61 = mFRR with direct activation	Used	Mandatory
sender_MarketParticipant.mRID	EIC of the common platform Operator: 10X1001C--00009H	Used	Mandatory
sender_MarketParticipant.marketRole.type	A35 = MOL responsible	Used	Mandatory
receiver_MarketParticipant.mRID	10X1001A1001A450 = EIC of the ENTSO-E transparency platform	Used	Mandatory
receiver_MarketParticipant.marketRole.type	A32 = Market information aggregator	Used	Mandatory
createdDateTime	Date and time of document creation	Used	Mandatory
docStatus	A01 = Intermediate A02 = Final	Not used	Conditional

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area.Domain.mRID	area described by the document	Used	Conditional
allocationDecision_DateAndOrTime	Date and time when the decision on allocation was made	Not used	Optional
period.timeInterval	The duration of the MTU period covered by the document. (15 minutes)	Used	Mandatory

TimeSeries			
mRID	Unique identification of the time series	Used	Mandatory
businessType	A97 = Manual frequency restoration reserve	Used	Mandatory
acquiring_Domain.mRID		Not used	Conditional
connecting_Domain.mRID		Not used	Conditional
type_MarketAgreement.type	Identification of the procurement time unit.	Not used	Conditional
standard_MarketProduct.marketProductType	A01 = Standard product	Used	Conditional
original_MarketProduct.marketProductType		Not used	Conditional
mktPSRType.psrType	Identification of the source type of the reserve	Not used	Conditional
flowDirection.direction	A01 = Up A02 = Down	Used	Conditional
currency_Unit.name	EUR = Euro	Used	Conditional
quantity_Measure_Unit.name	MAW = Megawatts	Not used	Conditional
price_Measure_Unit.name	MWH= Megawatt hours	Used	Conditional
curveType	A01 = Sequential fixed block	Used	Conditional
cancelledTS	If the data for a time series has been cancelled this attribute shall be specified with A01 = Yes	Not used	Conditional

560

Series_Period			
timeInterval	A time interval equivalent to the delivery period (15 minutes)	Used	Mandatory
resolution	PT15M	Used	Mandatory

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

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

561

562 **Table 13 – Balancing market document dependency table (submission of aggregated**
563 **bids and net positions to transparency platform)**

		Use	XSD requirements
Balancing_MarketDocument			
mRID	Unique identification of the balancing market Document	Used	Mandatory
revisionNumber	Initial transmission should normally equal "1"	Used	Mandatory
type	A24 = Bid document (when aggregated bids) B17 = Aggregated netted external TSO schedule document (when net positions)	Used	Mandatory
process.processType	A47 = Manual frequency restoration reserve A60 = mFRR with scheduled activation A61 = mFRR with direct activation	Used	Mandatory
sender_MarketParticipant.mRID	EIC of the common platform Operator: 10X1001C--00009H	Used	Mandatory
sender_MarketParticipant.marketRole.type	A35 = MOL responsible	Used	Mandatory
receiver_MarketParticipant.mRID	10X1001A1001A450 = EIC of the ENTSO-E transparency platform	Used	Mandatory
receiver_MarketParticipant.marketRole.type	A32 = Market information aggregator	Used	Mandatory
createdDateTime	Date and time of document creation	Used	Mandatory
docStatus	A01 = Intermediate A02 = Final	Not used	Conditional
area.Domain.mRID	area described by the document	Used	Conditional
allocationDecision_DateAndOrTime	Date and time when the decision on allocation was made	Not used	Optional
period.timeInterval	The MTU period covered by the document	Used	Mandatory

TimeSeries			
mRID	Unique identification of the time series	Used	Mandatory
businessType	A14 = Aggregated energy data B09 = Net position	Used	Mandatory
acquiring_Domain.mRID	The EIC identification of an area that imports energy. The EIC identification of the region when area exports energy.	Used when business type = B09	Conditional
connecting_Domain.mRID	The EIC identification of an area that exports energy. The EIC identification of the region when area imports energy.	Used when business type = B09	Conditional
type_MarketAgreement.type	Identification of the procurement time unit.	Not used	Conditional
standard_MarketProduct.marketProductType	A01 = Standard product	Used	Conditional
original_MarketProduct.marketProductType		Not used	Conditional
mktPSRType.psrType	Identification of the source type of the reserve	Not used	Conditional

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flowDirection.direction	A01 = Up A02 = Down	Used when business type = A14	Conditional
currency_Unit.name		Not used	Conditional
quantity_Measure_Unit.name	MWH = Megawatt hours when business type B09 MAW = Megawatts when business type A14	Used	Conditional
price_Measure_Unit.name		Not used	Conditional
curveType	A01 = Sequential fixed block	Used	Conditional
cancelledTS	If the data for a time series has been cancelled this attribute shall be specified with A01 = Yes	Not used	Conditional

564

Series_Period			
timeInterval	A time interval equal to the MTU period (15 minutes)	Used	Mandatory
resolution	PT15M	Used	Mandatory

Point			
position	Position within the time interval	Used	Mandatory
quantity	The offered quantity when business type A14 The net position when business type B09	Used when process type = A47	Conditional
secondaryQuantity	The activated quantity	Used when business type = A14	Conditional
unavailable_Quantity.quantity	The unavailable quantity	Used when business type = A14	Conditional
activation_Price.amount	The activation price for the quantity of reserve.	Not used	Conditional
procurement_Price.amount	The procurement price for the quantity of reserve.	Not used	Conditional
min_Price.amount	The minimum price for the reserve	Not used	Conditional
max_Price.amount	The maximum price for the reserve	Not used	Conditional
imbalance_Price.amount	The imbalance price for the quantity of reserve.	Not used	Conditional
imbalance_Price.category	Identification whether the imbalance price is due to excess or insufficient balance.	Not used	Conditional
flowDirection.direction		Not used	Conditional

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

565

5.3.10 Dependencies governing the BidAvailability_MarketDocument

The bid availability market document is used to provide the detailed reasons for changes to the availability of bids or the offered volumes. Whenever a TSO modifies a bid either before or after energy bid gate closure at T-12, it must submit the detailed reasons to the common platform no later than T+40. The common platform will distribute this information to the central transparency platform no later than T+45.

Table 14 – bid availability market document dependency table

		Use	XSD requirements
BidAvailability_MarketDocument			
mRID	Unique identification of the bid availability market document	Used	Mandatory
revisionNumber	Initial transmission should normally equal "1"	Used	Mandatory
type	B45 = bid availability document	Used	Mandatory
process.processType	A47 = Manual frequency restoration reserve	Used	Mandatory
sender_MarketParticipant.mRID	EIC of the transmitting TSO EIC of the common platform operator: 10X1001C--00009H	Used	Mandatory
sender_MarketParticipant.marketRole.type	A04 = System operator A35 = MOL responsible	Used	Mandatory
receiver_MarketParticipant.mRID	EIC of the common platform operator: 10X1001C--00009H EIC of the ENTSO-E transparency platform: 10X1001A1001A450	Used	Mandatory
receiver_MarketParticipant.marketRole.type	A35 = MOL responsible A32 = Market information aggregator	Used	Mandatory
createdDateTime	Date and time of document creation	Used	Mandatory
docStatus	A13 = Withdrawn Only used in case a document has been submitted by mistake	May be used	Conditional
time_Period.timeInterval	The MTU period(s) covered by bid(s) referenced in the document	Used	Mandatory

BidTimeSeries			
mRID	Identification of the bid time series when simple bid. multipartBidIdentification when multipart bid. exclusiveBidsIdentification when exclusive bid.	Used	Mandatory
bidDocument_MarketDocument.mRID	Bid document that contained the bid time series	Used	Mandatory
bidDocument_MarketDocument.revisionNumber	Version number of the bid document	Used	Mandatory
requestingParty_MarketParticipant.mRID	EIC code of Party requesting update of bid	Used	Mandatory
requestingParty_MarketParticipant.name	Populated when Requesting Party is a DSO or BSP	May be used	Conditional
requestingParty_MarketParticipant.marketRole.type	A49 = Transmission System Operator A46 = Balancing Service Provider A50 = Distributiion System Operator	Used	Mandatory
businessType	C40 = Conditional bid C41 = Thermal limit C42 = Frequency limit C43 = Voltage limit C44 = Current limit C45 = Short-circuit current limits C46 = Dynamic stability limit	Used	Conditional
domain.mRID	EIC code of scheduling area from which bid originates	Used	Mandatory
operationalLimit_Quantity.quantity		Not used	Conditional
limit_Measurement_Unit.name		Not used	Conditional

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Reason (associated with time series)	See note 1 below.		
code	When business type = C40 the following reason only applies: B16 = Tender unavailable in MOL list When business type = C42 one of the following reasons apply: B58 = Insufficiency of reserves B59 = Unavailability of reserve providing units When business type = C41, C43, C44, C45 or C46 one of the following reasons apply: B18 = Failure B46 = Internal congestion B47 = Operational security constraints B60 = Unavailability of automatic protection systems	Used	Mandatory
text	May be populated to provide additional explanation in free text format	May be used	Conditional

574

RegisteredResource (associated with BitTimeSeries)	See note 2 below.		
mRID	EIC code of concerned network element	Used	Mandatory

575 Note 1: Exactly one instance of Reason shall be populated.

576 Note 2: One or several instances of RegisteredResource shall be associated with the
577 BidTimeSeries when Business Type is Thermal Limit = C41 and
578 requestingParty_MarketParticipant.marketRole.type is A04 (System Operator).
579 RegisteredResource shall not be populated for any other Business Types.

580

581 5.3.11 Dependencies governing the Unavailability_MarketDocument

582 The common platform uses the unavailability document to communicate toward all
583 participating TSOs the disconnection of a TSO or the decoupling of an area, as well as
584 unavailability or failure in the common platform. Except for decoupling, the common platform
585 submits the same information to the central transparency platform. Updates to a
586 disconnection, decoupling or unavailability will be reported in a higher version of the original
587 document.

588 Each document will describe a single instance of a disconnection, decoupling, unavailability
589 or failure. Hence the document shall contain exactly one time series. No Series_Period shall
590 be included.

591 **Table 15 – unavailability market document dependency table**

		Use	XSD requirements
Unavailability_MarketDocument			
mRID	Unique identification of the unavailability market document	Used	Mandatory
revisionNumber	Initial transmission should normally equal "1"	Used	Mandatory
type	A53 = Outage publication document	Used	Mandatory
process.processType	A47 = Manual frequency restoration reserve A60 = mFRR with scheduled activation A61 = mFRR with direct activation	Used	Mandatory
createdDateTime	Date and time of document creation	Used	Mandatory

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sender_MarketParticipant.mRID	EIC of the common platform operator	Used	Mandatory
sender_MarketParticipant.marketRole.type	A35 = MOL responsible	Used	Mandatory
receiver_MarketParticipant.mRID	EIC of the receiving TSO EIC of the ENTSO-E transparency platform: 10X1001A1001A450	Used	Mandatory
receiver_MarketParticipant.marketRole.type	A04 = System Operator A32 = Market information aggregator	Used	Mandatory
unavailability_Time_Period.timeInterval	The MTU period(s) affected by the unavailability	Used	Mandatory
docStatus	A01 = Intermediate A02 = Final A09 = Cancelled A13 = Withdrawn A09 is used when a future dated outage, decoupling or disconnection is cancelled. A13 may be used to withdraw erroneously communicated outage	May be used	Conditional

TimeSeries			
mRID	identification of the time series	Used	Mandatory
businessType	C47 = Disconnection C50 = Decoupling A83 = Auction cancellation (used in case no solution found or algorithm failure) A53 = Planned maintenance A54 = Unplanned outage	Used	Mandatory
biddingZone_Domain.mRID	EIC code of control area when businessType = C47 EIC code of decoupled area when businessType = C50 EIC code of region when businessType = A83, A53 or A54	Used	Conditional
in_Domain.mRID		Not used	Conditional
out_Domain.mRID		Not used	Conditional
start_DateAndOrTime.Date	start date of the first affected validity period	Used	Mandatory
start_DateAndOrTime.Time	start time of the first affected validity period	Used	Mandatory
end_DateAndOrTime.Date	start date of the first validity period no longer affected by the unavailability	Used	Mandatory
end_DateAndOrTime.Time	start time of the first validity period no longer affected by the unavailability	Used	Mandatory
quantity_Measure_Unit.name	MAW	Used	Mandatory
curveType	A03	Used	Mandatory
production_RegisteredResource.mRID		Not used	Conditional
production_RegisteredResource.name		Not used	Conditional
production_RegisteredResource.location.name		Not used	Conditional
production_RegisteredResource.pSRType.psrType		Not used	Conditional
production_RegisteredResource.pSRType.powerSystemResources.mRID		Not used	Conditional
production_RegisteredResource.pSRType.powerSystemResources.name		Not used	Conditional
production_RegisteredResource.pSRType.powerSystemResources.nominalP		Not used	Conditional

592

Reason (associated with time series)			
code	B11 = Cooperating area problem (when area decoupled) B13 = Communication status currently inactive (when TSO disconnects) B18 = Failure (in platform)	Used	Mandatory

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	B19 = Foreseen Maintenance B27 = Calculation process failed (when algorithm failed) A99 = Auction cancelled (when no solution found by algorithm)		
text	May be populated to provide additional explanation in free text format	May be used	Conditional

593 Exactly one Reason shall be associated with the document header.

594 Series_Period and consequently Point classes are not used.

595

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5.3.12 Dependencies governing the EnergyAccount_MarketDocument

The energy account document is used by the common platform to provide the invoicing financial information for the mFRR to the accounting service billing provider. The document is used as detailed below:

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

Table 16 – Energy account market document dependency table (submission of Invoicing and financial data to party responsible for TSO invoicing)

		Use	XSD requirements
EnergyAccount_MarketDocument			
mRID	Unique identification of the Energy Account market Document	Used	Mandatory
revisionNumber	Initial transmission shall equal "1"	Used	Mandatory
type	A12 = Imbalance report	Used	Mandatory
docStatus	A02 = Final	Used	Mandatory
process.processType	A60 = mFRR with scheduled activation A61 = mFRR with direct activation	Used	Mandatory
process.ClassificationType	A01 = Detail type	Used	Mandatory
sender_MarketParticipant.mRID	EIC of the common platform Operator: 10X1001C--00009H	Used	Mandatory
sender_MarketParticipant.marketRole.type	A35 = MOL responsible	Used	Mandatory
receiver_MarketParticipant.mRID	EIC of the settlement billing agent	Used	Mandatory
receiver_MarketParticipant.marketRole.type	A10 = Billing agent	Used	Mandatory
createdDateTime	Date and time of document creation	Used	Mandatory
period.timeInterval	The duration of the settlement period: calendar month	Used	Mandatory
domain.mRID	EIC of the region	Used	Conditional

TimeSeries			
mRID	Unique identification of the time series	Used	Mandatory
businessType	B09 = Net positions B10 = Congestion income B77 = Financial compensation or penalties B77 used when negative congestion income. Applicable only for process type A60.	Used	Mandatory
product	8716867000016 = Active power	Used	Mandatory
objectAggregation	A01 = Area	Used	Mandatory
area_Domain.mRID	EIC identification of the control area EIC identification of the interconnector may be used when business type B10 = congestion income	Used	Mandatory
marketParticipant.mRID	identification of TSO responsible for the area	Used	Conditional

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	identification of the organisation responsible for the interconnector may be used when business type B10 = congestion income		
marketAgreement.mRID	Identification of the reserve contract	Not used	Conditional
measure_Unit.name	MWH = Megawatts hours	Used	Mandatory
currency_Unit.name	EUR = Euro	Used	Conditional
marketEvaluationPoint.mRID	Identification of an accounting point	Not used	Conditional

608

Series_Period			
timeInterval	When process type = A61 and business type B09: 30 minutes length (corresponding to MTU0 and MTU1) and iterated for all MTU periods within period.timeInterval In all other cases: A time interval equal to period.timeInterval	Used	Mandatory
resolution	PT15M	Used	Mandatory

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

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

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

611

612 ### 5.3.13 Financial amount table

613 Table 17 indicates the domain owner that should pay the amount indicated.

614 **Table 17 – financial amount table**

price.amount	Settlement amount	>0	<0
Which party pays		TSO	common platform

615

616 ## 5.4 Signalling

617 As indicated in chapters 5.2.7 and 5.2.8, the resulting XB flows and net positions may be
618 communicated as a real-time signal with intervals of 4 seconds. The signal at any given
619 second will be linearly interpolated between the two surrounding points in the corresponding
620 Schedule documents described in chapter 5.3.8, following the gradient. During ramping, each
621 4 second value will follow the gradient and not have the same value for a whole minute.

622 The following protocols shall be supported: IEC 60870-6 (also referred to as TASE.2 or ICCP)
623 and IEC 60870-5-101/104 (also referred to as IEC 101 and IEC 104).

624

625

626

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