



European Network of
Transmission System Operators
for Electricity

Common Platform for manually activated restoration reserves IMPLEMENTATION GUIDE

2021-06-01

APPROVED DOCUMENT
VERSION 1.2

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33 vendor may choose to include the item because a particular marketplace requires it or
34 because the vendor feels that it enhances the product while another vendor may omit the
35 same item. An implementation which does not include a particular option **SHALL** be
36 prepared to interoperate with another implementation which does include the option, though
37 perhaps with reduced functionality. In the same vein an implementation which does include
38 a particular option **SHALL** be prepared to interoperate with another implementation which
39 does not include the option (except, of course, for the feature the option provides.).

Revision History

Version	Release	Date	Comments
0	1	2020-02-17	First draft
1	0	2020-11-04	Approved by MC.
1	1	2021-01-26	<p>Maintenance request MARI_04:</p> <p>Conditionally linked bids may by default be either available or not available. Introduced status values “conditionally available” and “unconditionally available” in BidTimeSeries status attribute. Introduced six new status values for unconditionally available bids in the links to bids in previous MTU periods, mirroring the existing six values that will apply to conditionally available bids.</p> <p>Removed reference to tolerance band since out of scope.</p> <p>Reflected in chapter 5.3.4 that net position limits are not necessarily submitted for both import and export.</p> <p>Most recent version of HVDC link schema will be used to avoid dummy EIC when submitting DFR for AC border.</p> <p>Higher version of Acknowledgement schema will be used to handle longer mRID.</p> <p>Editorial correction: Removed earlier draft references to technicalConditionality and commercialConditionality.</p>
1	2	2021-06-01	<p>Maintenance request MARI05:</p> <ul style="list-style-type: none"> - EAR file shall cover one month in CET/CEST - rounding error output explicitly in EAR file - volumes and values of exchanged energy due to DA shall be output separately for positive and negative settlement prices - introduced ability to cancel interconnector flow constraint <p>Editorial corrections:</p> <ul style="list-style-type: none"> - Bid document may contain bids from scheduling areas that do not belong to sending TSO (Amprion submitting bids on behalf of all German TSOs, for example) - Period rather than Series_Period used in capacity document - Added clarification that BidAvailability document shall not be submitted for bids that were withdrawn due to erroneous submission <p>Approved by MC.</p>

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125 **1 Introduction**

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

128 **2 Scope**

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

132 **3 Normative references**

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

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

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

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

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

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

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

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

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

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

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

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

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

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

162 *Commission Regulation (EU) 2013/543 of 14 June 2013 on submission and publication of data*
163 *in electricity markets (TR)*

164 **3.1 Applicable EDI documents**

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

167 **Table 1 – Applicable EDI documents**

168

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:1:1
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:8:1
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

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

170 **3.2 Applicable protocols for file based data exchange**

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

- 172 - MADES (IEC 62325-503)
- 173 - web services (IEC 62325-504)
- 174 - EDX protocol

175 **4 Terms and definitions**

176 **AOF**

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

178 **activation period**

179 For the mFRR standard product, the activation period starts in the middle of ramp-up and
180 ends in the middle of ramp-down. For scheduled activations the activation period is equal to
181 15 minutes and coincides with the MTU period that is being optimized by the AOF. For direct
182 activations the activation period may have a duration from 15 minutes up to 30 minutes,

183 starting during the MTU period being optimized by the AOF and ending with the following
184 MTU period.

185 **area**

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

188 **Balancing service provider (BSP)**

189 As defined by EB GL art. 2(6)

190 **CBCL**

191 Cross-border capacity limit

192 **direct activation (DA)**

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

195 **GCT**

196 Gate closure time

197 **HVDC**

198 High voltage direct current

199 **IF**

200 Implementation Framework

201 **mFRR**

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

206 **MTU**

207 Market Time Unit

208 **SA CE**

209 Synchronous Area Continental Europe

210 **scheduled activation (SA)**

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

213 **simple bid**

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

215 **XB**

216 Cross-border

217 **XB flows**

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

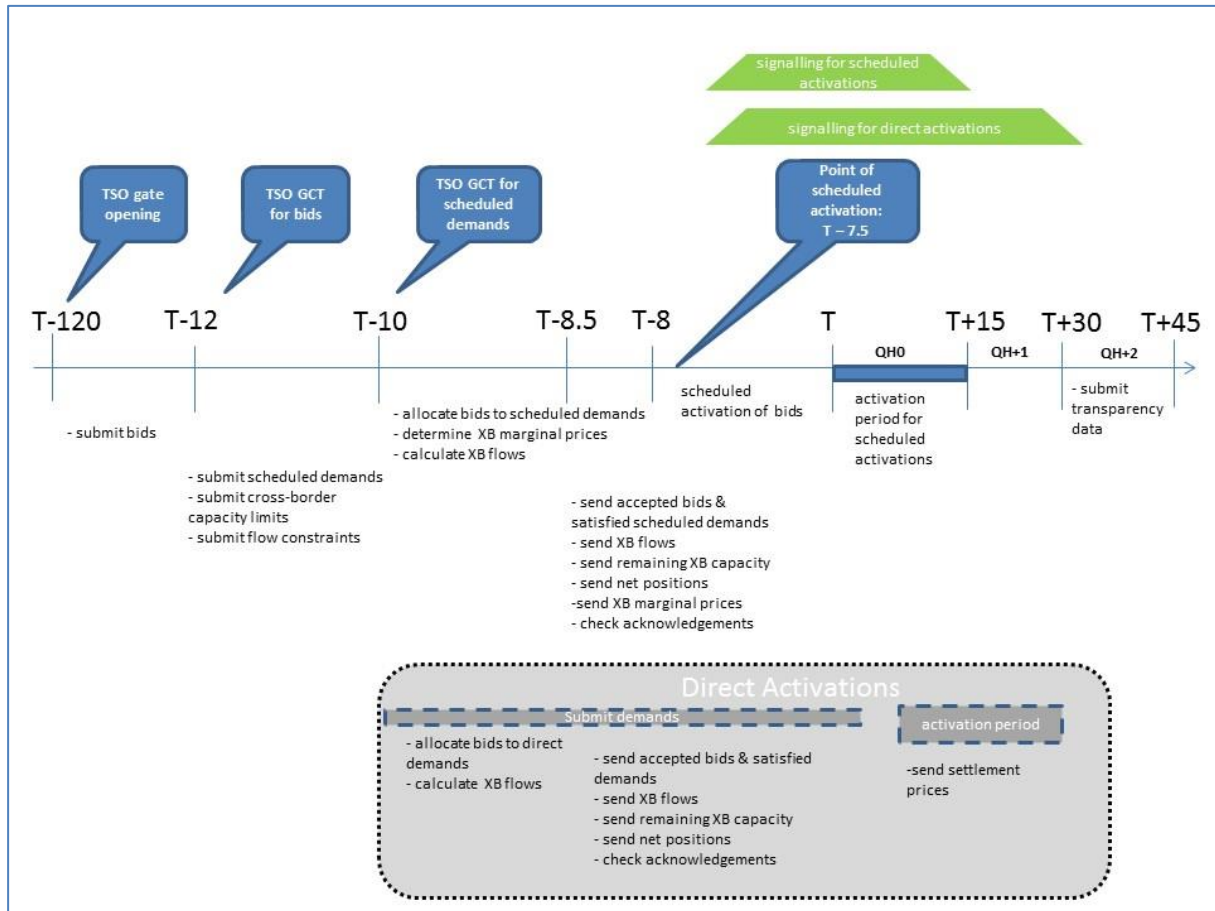
219

220 **5 The manual frequency restoration reserve business process for standard**
221 **products**

222 **5.1 General overview**

223 The common mFRR platform is dedicated to the mFRR process only and will therefore, as a
224 general rule, receive input data and produce output data that is related to the mFRR timeframe
225 only¹. The platform has a number of operational phases that will be carried out continuously 24
226 * 7:

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



227

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

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

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

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

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

238 Between T-10 and T-8.5 the mFRR platform with its AOF selects bids to satisfy the demands
239 for scheduled activations, determines the cross-border marginal prices and calculates the
240 cross-border flows. In the subsequent results communication and verification phase between
241 T-8.5 and T-8, the resulting net positions, cross-border flows and remaining capacity are sent
242 to TSOs together with cross-border marginal prices and the bids selected for activation and the
243 satisfied demands. The net positions and cross-border flows are also sent to the SA CE monitor.

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

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

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

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

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

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

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

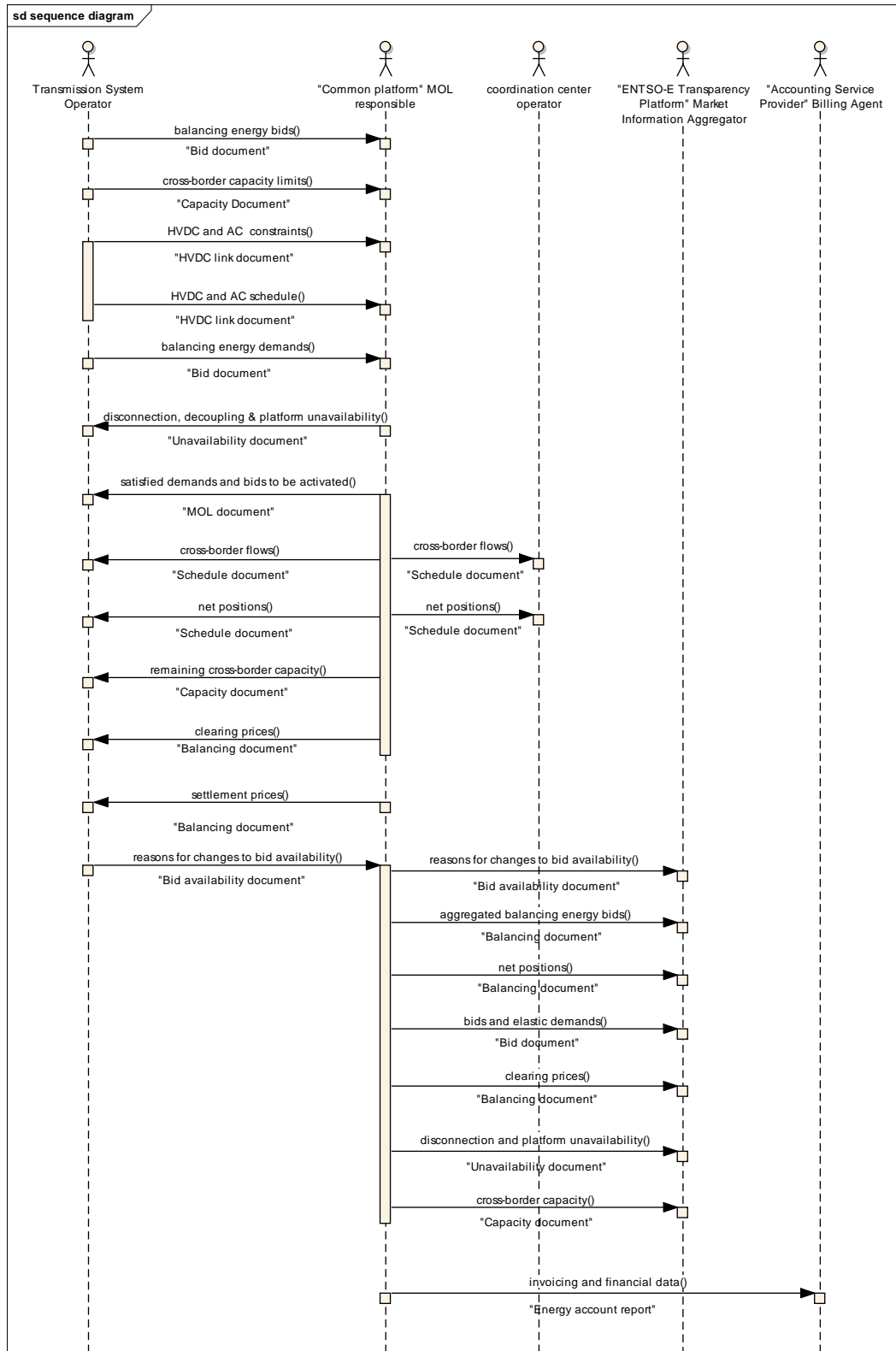
264 By T+45 the latest reporting of data to the ENTSO-E central transparency platform shall occur.

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

268

269 **5.2 Overall business context**

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



273

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

276 The illustration above depicts file exchanges only. Real-time signaling is detailed in chapter
277 5.4.

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

281 **5.2.1 Balancing energy bids**

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

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

288 **5.2.2 Cross-border capacity limits**

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

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

299 **5.2.3 HVDC and AC constraints**

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

303 **5.2.4 HVDC and AC schedules**

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

308 **5.2.5 Balancing energy demands**

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

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

317 **5.2.6 Satisfied demands and bids to be activated**

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

321 **5.2.7 Cross-border flows**

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

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

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

329 **5.2.8 Net position**

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

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

335 **5.2.9 Remaining cross-border capacity**

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

338 **5.2.10 Clearing prices**

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

341 **5.2.11 Settlement prices**

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

344 **5.2.12 Detailed reasons for changes to bid availability**

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

347 **5.2.13 Outages**

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

351 **5.2.14 Transparency reporting**

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

355 Elastic demands are reported as required by article 3.4 of the mFRR IF. Disconnection of a
356 TSO and unavailability or failure of the mFRR platform are reported in accordance with article
357 3.11 of the mFRR IF. Detailed reasons for changes to bid availability are reported as required
358 by articles 9.7 and 9.9 of the mFRR IF.

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

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

362 **5.2.15 Invoicing and financial data**

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

365 **5.3 Business rules**

366 **5.3.1 General rules**

367 For each file-based electronic data interchange defined in this document, an acknowledgement
368 document, as defined in IEC 62325-451-1, should be generated either accepting the whole

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

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

374 **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

375
376 In all documents the single applicable coding scheme shall be A01 = EIC coding scheme.

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

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

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

388 **5.3.2 Dependencies governing the ReserveBid_MarketDocument**

389 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
390 also used to submit all bids to the ENTSO-E central transparency platform. See Table 4 for submissions to the Transparency platform

391 All demands from a given TSO (elastic, inelastic and tolerance bands) must be placed within a single document. Bids may be distributed among more
392 than one document, at the discretion of the TSO. The TSO is responsible for ensuring unique bid identifiers (in the mRID attribute of BidTimeSeries)
393 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
394 documents.

395 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
396 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
397 Document only updates the bids or demands contained within the document, while all other bids or demands not described by the higher version
398 remain unchanged within the platform.

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

402 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.
403 standard_MarketProduct.marketProductType attribute) and to the offered volume (i.e quantity.quantity attribute) are permitted.

404 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
405 version of the same document and mark the bid or demand as unavailable in the Status attribute.

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

407

408 **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

409

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 a 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. 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.	Used	May be used	Conditional

	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.			
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 A65 = Conditionally available A66 = Conditionally unavailable Associated multipart or exclusive bids must have the same status. A65 or A66 must be used when bid is conditionally linked, i.e. having one or several instances of Linked_BidTimeSeries. A65 or A66 shall not be used for demands, multipart bids or exclusive bids.	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	<p>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</p> <p>For bids, any of the three values may be used. Associated multipart and exclusive bids must have the same value.</p> <p>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.</p>	A05 A06 A07	A05 A06	Conditional
original_MarketProduct.marketProductType	<p>Used when the bid has been converted into a standard product: A02 = Specific product A03 = Integrated scheduling process</p> <p>Associated multipart and exclusive bids must have the same value.</p>	May be used	Not used	Conditional

411
412

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

413

414 Note 1: The attributed linkedBidIdentification may be used to associate technically linked bids in different MTU periods. Within a given MTU period,
415 there may not be more than one bid having the same value in linkedBidIdentification. The following rule for technically linked bids will always be
416 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
417 available.

418

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

424

425 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
426 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
427 exclusiveBidsIdentification) with a technical link to a bid in another MTU period.

428

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

431

432

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 their remedial action Exceptionally the code B18 = Failure shall 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	

434 Note 4: The normal reasons for bid unavailability will be conveyed by the dedicated BidAvailability_MarketDocument described in chapter 5.3.10.
435

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	One of the following values shall be used when bid in MTU0 is conditionally available, i.e. BidTimeSeries.status = A65: 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 One of the following values shall be used when bid in MTU0 is conditionally unavailable, i.e. BidTimeSeries.status = A66: A67 = Available if linked bid activated A68 = Available if linked bid rejected A69 = Available if linked bid subject to SA A70 = Available if linked bid subject to DA A71 = Available for DA if linked bid subject to DA A72 = Available for DA if linked bid subject to SA	Used	Not used	Conditional

436
437 Multipart or exclusive bids may not be conditionally linked. Therefore, no instances of Linked_BidTimeSeries are permitted when
438 multipartBidIdentification or exclusiveBidsIdentification have been populated. Conditional and technical links between two bids are permitted however
439 in such case both must be simple bids.

440
441 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
442 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
443 one link to any given bid, hence the mRIDs must be unique.

444
445 The mFRR platform will apply the following rules:
446 - A conditionally available bid in MTU0 (i.e. bid with status A65) becomes completely unavailable when at least one of the conditional links
447 indicate unavailability due to the outcome of the linked bid in MTU-1 or MTU-2
448 - A conditionally available bid in MTU0 becomes unavailable for direct activation when at least one of the conditional links indicate unavailability
449 for direct activation due to the outcome of the linked bid in MTU-1 or MTU-2
450 - A conditionally unavailable bid in MTU0 (i.e. bid with status A66) becomes available when at least one of the conditional links indicate
451 availability due to the outcome of the linked bid in MTU-1 or MTU-2
452 - A conditionally unavailable bid in MTU0 becomes available for direct activation when at least one of the conditional links indicate availability
453 for direct activation due to the outcome of the linked bid in MTU-1 or MTU-2
454

455 Table 4 provides the dependencies for the reserve bid market document when the common platform submits bids to the ENTSO-E transparency
456 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
457 every area.

458 **Table 4 – Reserve bid market document dependency table (balancing energy bids and elastic demands submitted to transparency**
459 **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

460

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. 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	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

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	Used	Not used	

	be used to specify the activation purpose of a bid: B55 = Because of redispatching B56 = Because of countertrading B57 = Because of their remedial action			
text	Textual information provided by the TSO	Not used	Not used	

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467

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

468
469

470 5.3.3 Determination of final bid availability within mFRR platform

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

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

477

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

479 **5.3.4 Dependencies governing the Capacity_MarketDocument**

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

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

486 Data consumer has a choice between receiving the remaining cross-border capacity with or without ramping. When the document with the remaining
487 cross-border capacity describes the ramping, it may partially cover up to three MTU periods for scheduled activations and for direct activations partially
488 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
489 periods for direct activations.

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

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

492 **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
Period			
timeInterval	A time interval of the same length as the period.timeInterval in header	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	

494 **5.3.5 Dependencies governing the HVDCLink_marketDocument**

495 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
496 optionally also be used by TSOs to provide constraints on AC links. For a given interconnector, schedules must be provided for both directions within
497 the same document.

498 **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	Conditional
docStatus	A02 = Final A09 = Cancelled	Used	Used	Mandatory
domain.mRID	EIC of the region	Used	Used	Mandatory

499

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.	Used	Used	Conditional
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
start_DateAndOrTime		Not used	Not used	Conditional
end_DateAndOrTime		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

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

501

502

503 **5.3.6 Dependencies governing the MeritOrderList_MarketDocument**

504 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
505 as well the demands that have been satisfied. Document will contain only bids and demands submitted by the given TSO. Activated and partially
506 activated bids will be sent in one file. Rejected bids will be sent in a second file.

507 **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

508

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	B74 = Offer	B75 = 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

509

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

510

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

511 **5.3.7 Price payment table**

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

513 **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

514

515 **5.3.8 Dependencies governing the Schedule_MarketDocument**

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

518 For a given MTU period, the XB flows and net positions resulting from scheduled and direct activations, respectively, shall be sent in separate documents.
519

520 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.
521

522 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.
523

524 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.
525
526

527 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.
528
529

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

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

535

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

536

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

537

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

538 Notes:

539 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
 540 TSO's area. When TSO is importing, in_Domain shall be populated with the TSO's area and out_Domain with the region.

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

545 **5.3.9 Dependencies governing the Balancing_MarketDocument**

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

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

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

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

556 Table 12 provides the dependencies for the balancing market document when the common
557 platform sends clearing prices to the ENTSO-E transparency platform as required by TR article
558 17.1.f.

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

562 **Table 10 – Balancing market document dependency table (submission of clearing**
563 **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

564

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

565 **Table 11 – Balancing market document dependency table (submission of Settlement**
566 **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

567

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

568

569

570

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

		Use	XSD requirements
Balancing_MarketDocument			
mRID	Unique identification of the balancing market Document	Used	Mandatory
revisionNumber	Initial transmission 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

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

571

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

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

572

573 **Table 13 – Balancing market document dependency table (submission of aggregated**
574 **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

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

575

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)			
amount		Not used	Mandatory
direction		Not used	Conditional

576

577 **5.3.10 Dependencies governing the BidAvailability_MarketDocument**

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

583 The TSO shall not submit any BidAvailability document when a bid was declared unavailable
584 by TSO because it was submitted in error, and hence was resubmitted with reason code B18
585 = Failure.

586 **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 = Distribution 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

587

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

588

Reason (associated with time series)	See note 1 below.		
code	<p>When business type = C40 the following reason only applies: B16 = Tender unavailable in MOL list</p> <p>When business type = C42 one of the following reasons apply: B58 = Insufficiency of reserves B59 = Unavailability of reserve providing units</p> <p>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</p>	Used	Mandatory
text	May be populated to provide additional explanation in free text format	May be used	Conditional

589

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

590

Note 2: One or several instances of RegisteredResource shall be associated with the

591

BidTimeSeries when Business Type is Thermal Limit = C41 and

592

requestingParty_MarketParticipant.marketRole.type is A04 (System Operator).

593

RegisteredResource shall not be populated for any other Business Types.

594

595

5.3.11 Dependencies governing the Unavailability_MarketDocument

596

The common platform uses the unavailability document to communicate toward all

597

participating TSOs the disconnection of a TSO or the decoupling of an area, as well as

598

unavailability or failure in the common platform. Except for decoupling, the common platform

599

submits the same information to the central transparency platform. Updates to a

600

disconnection, decoupling or unavailability will be reported in a higher version of the original

601

document.

602

Each document will describe a single instance of a disconnection, decoupling, unavailability

603

or failure. Hence the document shall contain exactly one time series. No Series_Period shall

604

be included.

605

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
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

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

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

608 Series_Period and consequently Point classes are not used.

609

610 **5.3.12 Dependencies governing the EnergyAccount_MarketDocument**

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

- 614 1. To provide the financial settlement of the net positions;
- 615 2. To provide the congestion income;
- 616 3. To provide the negative congestion income due to the imposition of constraints on
617 interconnectors;
- 618 4. To provide the rounding error.

619

620 **Table 16 – Energy account market document dependency table (submission of**
621 **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 in CET/CEST	Used	Mandatory
domain.mRID	EIC of the region	Used	Conditional

622

TimeSeries			
mRID	Unique identification of the time series	Used	Mandatory
businessType	B09 = Net positions B10 = Congestion income B77 = Financial compensation or penalties C56 = Rounding error C48 = Intended energy with positive price C49 = Intended energy with negative price B09 applicable only for process type A60. C48 and C49 shall be used to describe the net positions for direct activations and are therefore applicable only for process type A61. 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 identification of the organisation responsible for the interconnector may be used when business type B10 = congestion income	Used	Conditional
marketAgreement.mRID	Identification of the reserve contract	Not used	Conditional
measure_Unit.name	MWH = Megawatts hours	Used	Mandatory
currency_Unit.name	EUR = Euro	Used	Conditional
marketEvaluationPoint.mRID	Identification of an accounting point	Not used	Conditional

623

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

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

Reason (associated with Point)		Not used	Conditional
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626

627 5.3.13 Financial amount table

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

629

Table 17 – financial amount table

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

630

631 **5.4 Signalling**

632 As indicated in chapters 5.2.7 and 5.2.8, the resulting XB flows and net positions may be
633 communicated as a real-time signal with intervals of 4 seconds. The signal at any given
634 second will be linearly interpolated between the two surrounding points in the corresponding
635 Schedule documents described in chapter 5.3.8, following the gradient. During ramping, each
636 4 second value will follow the gradient and not have the same value for a whole minute.

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

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640

641