



European Network of  
Transmission System Operators  
for Electricity

---

# Common Platform for Replacement Reserves

## IMPLEMENTATION GUIDE

---

2018-11-08

---

APPROVED DOCUMENT  
VERSION 1.0

2 Copyright notice:

3 **Copyright © ENTSO-E. All Rights Reserved.**

4 This document and its whole translations may be copied and furnished to others, and  
5 derivative works that comment on or otherwise explain it or assist in its implementation may  
6 be prepared, copied, published and distributed, in whole or in part, without restriction of any  
7 kind, provided that the above copyright notice and this paragraph are included on all such  
8 copies and derivative works. However, this document itself may not be modified in any way,  
9 except for literal and whole translation into languages other than English and under all  
10 circumstances, the copyright notice or references to ENTSO-E may not be removed.

11 This document and the information contained herein is provided on an “as is” basis.

12 **ENTSO-E DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT**  
13 **LIMITED TO ANY WARRANTY THAT THE USE OF THE INFORMATION HEREIN WILL NOT**  
14 **INFRINGE ANY RIGHTS OR ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR**  
15 **FITNESS FOR A PARTICULAR PURPOSE.**

16 **This document is maintained by the TERR>E project team with the support of WG EDI.**  
17 **Comments or remarks are to be provided at [EDI.Library@entsoe.eu](mailto:EDI.Library@entsoe.eu)**

18 **NOTE CONCERNING WORDING USED IN THIS DOCUMENT**

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

- 21 • SHALL: This word, or the terms “REQUIRED” or “MUST”, means that the definition is an  
22 absolute requirement of the specification.
- 23 • SHALL NOT: This phrase, or the phrase “MUST NOT”, means that the definition is an  
24 absolute prohibition of the specification.
- 25 • SHOULD: This word, or the adjective “RECOMMENDED”, means that there may exist valid  
26 reasons in particular circumstances to ignore a particular item, but the full implications  
27 shall be understood and carefully weighed before choosing a different course.
- 28 • SHOULD NOT: This phrase, or the phrase “NOT RECOMMENDED”, means that there may  
29 exist valid reasons in particular circumstances when the particular behaviour is acceptable  
30 or even useful, but the full implications should be understood and the case carefully  
31 weighed before implementing any behaviour described with this label.
- 32 • MAY: This word, or the adjective “OPTIONAL”, means that an item is truly optional. One  
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,  
37 though perhaps with reduced functionality. In the same vein an implementation which does  
38 include a particular option SHALL be prepared to interoperate with another implementation  
39 which does not include the option (except, of course, for the feature the option provides.).

## Revision History

Version	Release	Date	Paragraph	Comments
1	Draft A	2016-08-31		Initial release
1	Draft B	2016-09-13		Revision following the conference call of 2016-09-13.
1	Draft C	2016-09-21		Revision following the conference call of 2016-09-21
1	Draft D	2016-10-10		Revision following the conference call of 2016-10-10
1	Draft E	2016-10-27		Revision to add multipart to the reserve bid document following the conference call of 2016-16-27
1	Draft F	2016-12-22		Initial release for approval
1	Draft F	2017-01-03		Release for information towards ENTSO-E
1	Draft G	2017-01-13		Aligned with MOL and Bid document models released by WG EDI. Updated with allocated, new codes for Message Type and Process Type per maintenance requests Terre-8 and Terre-16.
1	Draft H	2017-03-06		Updated references to schemas and XSDs. Corrected conditionality of attribute minimum_Quantity.quantity in Bid Reserve Document.
1	Draft I	2017-04-26		Replaced Process Type A02 = intraday incremental with A46 = Replacement reserve (RR) and A47 = Manual frequency restoration reserves (mFRR) in the Schedule Market Document.  Introduced new business type for flexible needs (also referred to as tolerance band).  Introduced the concept of virtual scheduling areas for RR and mFRR, respectively, in chapter 5.3.11 on the Reporting Market Document.
1	Draft J	2017-09-22		Added clarification in 5.3.4 about how to withdraw a need or offer.  Added clarifications in 5.2.2 and 5.3.3 that HVDC Link document may also be used to communicate constraints on AC links.
1	Draft J	2018-01-09		Only offers (not needs) may be marked as exclusive, linked or multipart.  Corrected description of attribute activated_Quantity.quantity in MOL document.  Clarified different meanings of attribute price.amount in MOL document.
1	Draft J	2018-02-05		The attribute “divisible” of Bid document changed to mandatory to align with schema. “Priority” attribute of Bid document renamed from “Priority” to “priority”. Added description of unused attributes in class Financial_Price of the Balancing Market document. Reordered attributes in Bid and Balancing documents to align with schemas.  Added wording in chapter 5.3.4 describing how to populate the attributes specific to linked, exclusive and multipart bids.  In Bid document, needs are always divisible. The minimum quantity is always 0 for needs.
1	Draft J	2018-02-07		Amended wording in chapters 5.2.5, 5.2.6 and 5.2.12 in response to further comments from REN.

1	Draft K	2018-04-06		<p>Clarified that duration of delivery period will initially be 60 minutes while resolution 15, 30 or 60 minutes. Towards accounting service and transparency platform 15 minute resolution shall be used.</p> <p>Reordered attributes in Schedule document to align with schema. Attribute <code>connectingLine_RegisteredResource.mRID</code> rather than <code>marketEvaluationPoint.mRID</code> will be used to distinguish the interconnector.</p> <p>Reintroduced single MOL file in situations without constraints or when receiving TSO was decoupled.</p> <p>For MOL file, specified that price attribute is populated only when offer is accepted or need is satisfied. Added note that price attribute is not populated in needs when netting of inelastic needs only occurred.</p> <p>Balancing document will be sent also to TSOs in order to convey the clearing prices.</p> <p>Added business rule on shapes of multi-part offers and linked offers.</p> <p>Updated sequence diagram.</p> <p>For all attributes representing a domain, clarified whether it shall be populated with region, market balance area or bidding zone.</p> <p>Added new attribute <code>MarketProduct</code> in dependency tables for Balancing and Bid documents.</p>
1	Draft L	2018-06-27		<p>Editorial corrections. Replaced term market balance area by scheduling area. Included explicit references to the TERRE regions.</p> <p>Minor corrections in dependency tables. Linked bids must always cover exactly 15 minutes, cover mutually exclusive BTU periods and may have different directions.</p> <p>For needs and offers, input precision has been harmonised to 1 MW, while output precision is harmonised to 0.1 MW. For ATC and schedules, precision has been harmonised to 0.1 MW.</p> <p>Bid submission time recorded in attribute <code>MarketAgreement_createdDateTime</code> and <code>Priority</code> will not be used by optimisation algorithm.</p> <p>Net positions per area rather than per border shall be sent to TSOs in a separate schedule document.</p> <p>Domain attribute in header of Capacity, Schedules, Bid and MOL documents shall contain the TERRE region.</p> <p>Resolution of needs and offers in MOL document will always be PT15M</p> <p>Added settlement category for price divergence in the energy account document.</p>

1	Draft M	2018-08-31		<p>As a transitory measure, balancing group may optionally be declared in the resulting net positions.</p> <p>Tendering gate closure time set to occur at generic point in time Y minutes before start of delivery period.</p> <p>Aligned with draft new MoP v3r1 from ENTSO-E for transparency reporting. TERRE will report clearing prices, aggregated bids and all received bids for standard RR product. Made corresponding changes in balancing document with clearing prices that is sent to TSOs.</p> <p>Replaced bidding zone by scheduling area. Revised title of document. Added reference to MoP for central Transparency Platform.</p> <p>Replaced "TERRE" by "common platform".</p> <p>Various editorial corrections.</p>
1	Draft N	2018-09-14		<p>Clarified that bids that are linked, exclusive or multipart must have the same status. Removed the attribute value A28="unshared" for unavailable bids since there is no business need to distinguish from A11 = "no longer available".</p> <p>Included possibility to specify that bid was converted from an integrated scheduling process.</p>
1	Draft O	2018-09-27		<p>Incorporated feedback from review by WG EDI:</p> <p>Reworded explanatory note on balancing groups. Verification platform will be identified by its V-code rather than the X code of Amprion.</p>
1	0	2018-11-08		<p>Approved by MC.</p>

41	<b>CONTENTS</b>		
42	Copyright notice:		2
43	Revision History		3
44	CONTENTS		6
45	1	Introduction	8
46	2	Scope	8
47	3	Normative references	8
48	4	Terms and definitions	9
49	5	The replacement reserve business process for standard products	9
50	5.1	General overview	9
51	5.2	Overall business context	10
52	5.2.1	Final ATC	12
53	5.2.2	HVDC and AC constraints	12
54	5.2.3	HVDC schedules	12
55	5.2.4	TSO reserve offers and needs	12
56	5.2.5	Accepted needs and offers to be activated	12
57	5.2.6	Cross border schedules	12
58	5.2.7	Net position	12
59	5.2.8	Clearing prices	12
60	5.2.9	Remaining ATC	12
61	5.2.10	Transparency reporting	12
62	5.2.11	Invoicing and financial data	13
63	5.3	Business rules	13
64	5.3.1	General rules	13
65	5.3.2	Dependencies governing the Capacity_MarketDocument	14
66	5.3.3	Dependencies governing the HVDCLink_marketDocument	16
67	5.3.4	Dependencies governing the ReserveBid_MarketDocument	19
68	5.3.5	Price payment table	28
69	5.3.6	Dependencies governing the MeritOrderList_MarketDocument	29
70	5.3.7	Dependencies governing the Schedule_MarketDocument	33
71	5.3.8	Dependencies governing the	
72		EnergyAccount_MarketDocument	36
73	5.3.9	Financial amount table	37
74	5.3.10	Dependencies governing the Balancing_MarketDocument	38
75	5.3.11	Dependencies governing the Reporting_MarketDocument	44
76	6	Contextual and assembly models	46
77	6.1	Capacity market document	46
78	6.2	HVDCLink market document	46
79	6.3	Reserve bid market document	46
80	6.4	Merit order list market document	46
81	6.5	Schedule market document	46
82	6.6	Energy account market document	46
83	6.7	Balancing market document	46
84	6.8	Reporting market document	46
85	7	XML schema	47
86			

87	<b>List of figures</b>	
88	Figure 1: Replacement reserve process overview .....	9
89	Figure 2: The replacement reserve process sequence diagram .....	11
90		
91	<b>List of tables</b>	
92	Table 1 – Capacity market document dependency table .....	14
93	Table 2 - HVDC link market document dependency table .....	16
94	Table 3 – Reserve bid market document dependency table (submissions to common	
95	platform) .....	19
96	Table 4 – Reserve bid market document dependency table (submissions to	
97	transparency platform) .....	23
98	Table 5 - Price payment table .....	28
99	Table 6 - merit order list market document dependency table .....	29
100	Table 7 - Schedule market document dependency table .....	33
101	Table 8 – Energy account market document dependency table .....	36
102	Table 9 – Financial amount table .....	37
103	Table 10 – Balancing market document dependency table (submission of clearing	
104	prices to transparency platform) .....	38
105	Table 11 – Balancing market document dependency table (submission of clearing	
106	prices to TSO) .....	39
107	Table 12 – Balancing market document dependency table (submission of aggregated	
108	bids to transparency platform) .....	41
109	Table 13 – Reporting market document dependency table .....	44
110		

## 111 1 Introduction

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

## 114 2 Scope

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

118 The aims of the project are to permit:

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

## 125 3 Normative references

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

130 IEC TS 61970-2, *Energy management system application program interface (EMS-API) –Part*  
131 *2: Glossary*

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

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

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

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

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

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

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

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

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

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

152 *ENTSO-E Manual of Procedures for central Transparency Platform v3r1*



153 **4 Terms and definitions**

154 **4.1 aFFR**

155 **Automatic frequency restoration reserves; the FRR that can be activated by an**  
 156 **automatic control device designed to reduce the Frequency Restoration Control**  
 157 **Error (FRCE) to zero.**

158 **4.2 mFRR**

159 **Manual frequency restoration reserves; Manual FRR Full Activation Time means the**  
 160 **time period between the set point change and the corresponding activation or**  
 161 **deactivation of manual FRR.**

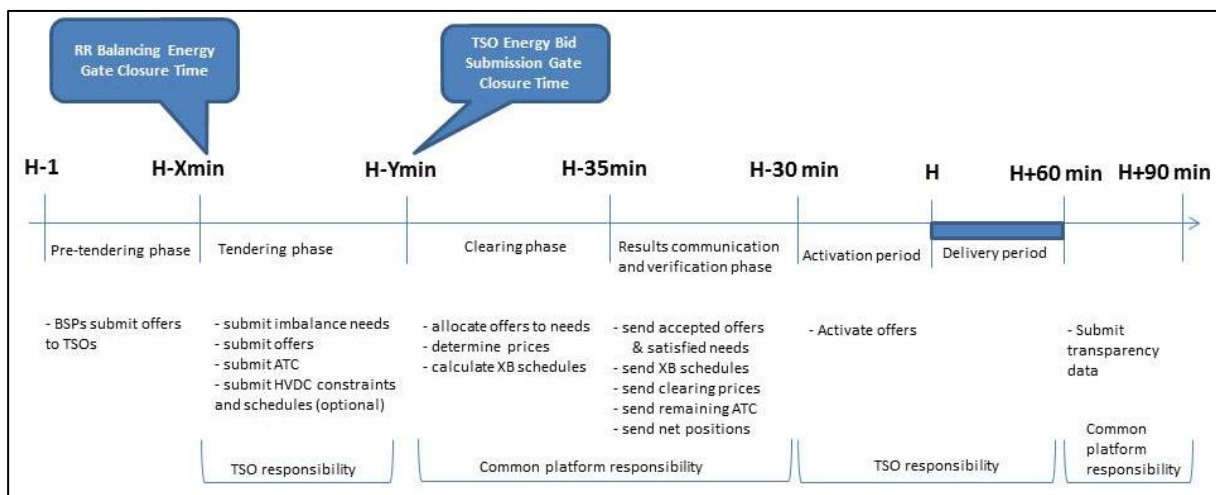
162 **4.3 RR**

163 **Replacement reserves; The reserves used to restore/support the required level of**  
 164 **FRR to be prepared for additional system imbalances. This category includes**  
 165 **operating reserves with activation time from Time to Restore Frequency up to hours.**  
 166

167 **5 The replacement reserve business process for standard products**

168 **5.1 General overview**

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



171

172 **Figure 1: Replacement reserve process overview**

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

175 Typically at H-1 the Balance Service Providers (BSP) may during a pre-tendering phase  
 176 submit offers to the TSOs.

177 At the balancing energy gate closure time H-Xmin the tendering phase begins on the common  
 178 platform. Each TSO submits to the common platform the replacement reserve (RR) imbalance  
 179 needs, the offers and the available transfer capacity (ATC).

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

183 At H-35 the resulting accepted offers, satisfied needs, cross border schedules and remaining  
 184 ATC are submitted to the interested parties and are verified.

185 At H-30 the activation phase begins where each TSO activates the offers under its  
 186 responsibility that are needed in order to satisfy the overall needs.

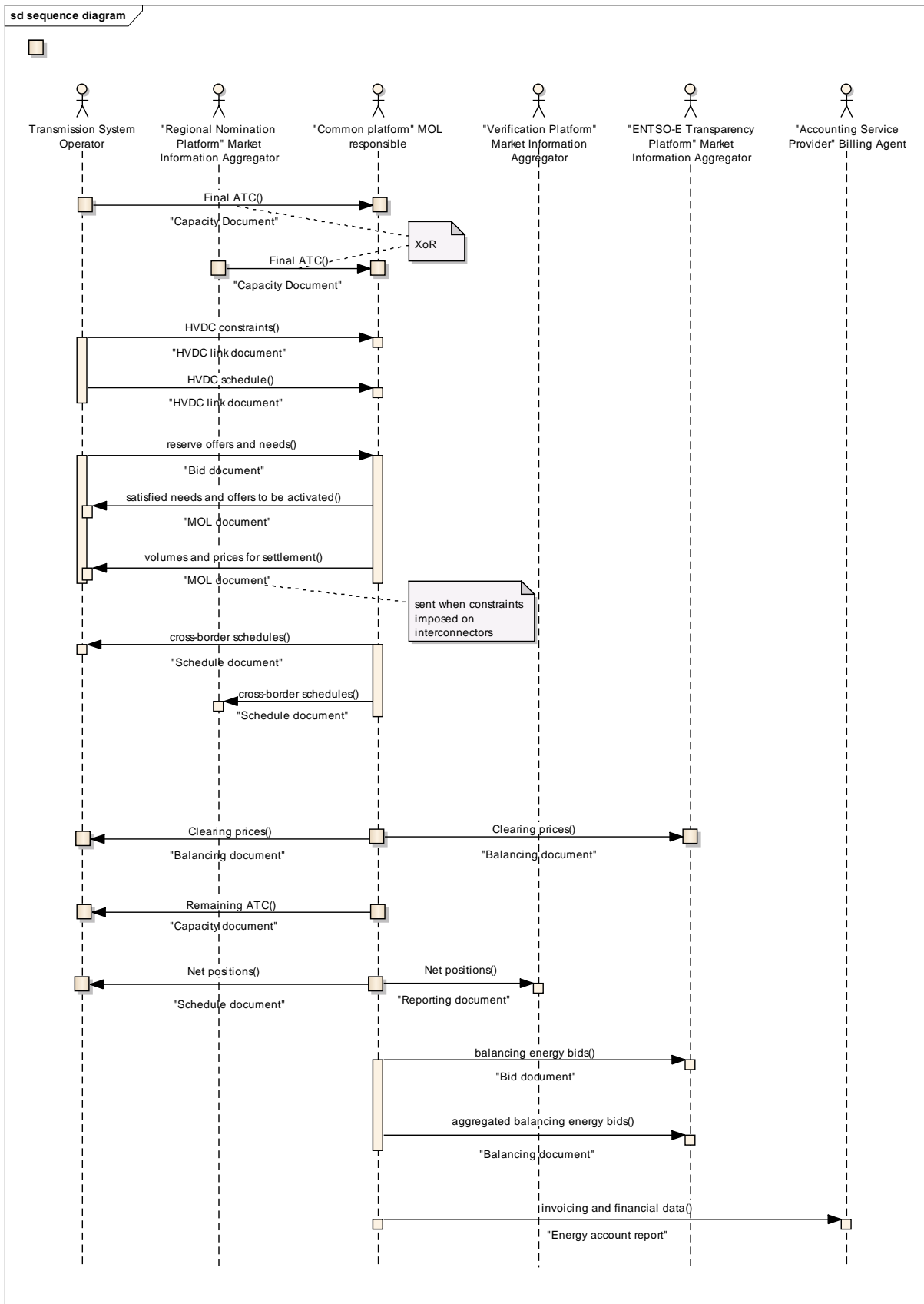
187 At H the activation for one hour occurs.

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

190 **5.2 Overall business context**

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

194



195

196

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

197

The information flows are outlined in the following paragraphs.

198 **5.2.1 Final ATC**

199 The participating TSOs provide to the common platform during the tendering phase the final  
200 available transfer capacity (ATC). This information will be used during the calculation of the  
201 replacement reserves for the coming delivery period. In some cases participating TSOs may  
202 provide the ATC through a regional nomination platform.

203 **5.2.2 HVDC and AC constraints**

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

207 **5.2.3 HVDC schedules**

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

211 **5.2.4 TSO reserve offers and needs**

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

215 **5.2.5 Accepted needs and offers to be activated**

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

220 1. If no constraints were imposed or the receiving TSO's control area was decoupled, this  
221 information will be conveyed in a single document. Offers will be marked with the price for  
222 activating the product.

223 or

224 2. If constraints were imposed, this information will be conveyed in two separate documents.  
225 One document will contain the offered volumes that shall be activated. The second document  
226 will contain offers with accepted volumes and prices as if no constraints had been imposed.  
227 The TSO shall use the combined information of these two documents to carry out settlement  
228 towards its balancing service providers.

229 **5.2.6 Cross border schedules**

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

232 **5.2.7 Net position**

233 The common platform informs the pan-European verification platform of the net position per  
234 scheduling area for the schedule day of all participating TSOs.

235 Each TSO receives the net position for its scheduling area.

236 **5.2.8 Clearing prices**

237 The common platform provides the clearing prices to the TSOs.

238 **5.2.9 Remaining ATC**

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

241 **5.2.10 Transparency reporting**

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

244 **5.2.11 Invoicing and financial data**

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

248 **5.3 Business rules**

249 **5.3.1 General rules**

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

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

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

256

257

258 **5.3.2 Dependencies governing the Capacity\_MarketDocument**

259 The capacity market document is used to provide the ATC that is available in a TSO area for a given period. It is also used by the common platform  
 260 to inform the TSOs of any ATC that remains.

261 Table 1 provides the dependencies for the capacity market document.

262

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

		Use	XSD requirements
<b>Capacity_MarketDocument</b>			
mRID	Unique identification of the Capacity Document	Used	Mandatory
revisionNumber	Initial transmission shall equal "1"	Used	Mandatory
type	A31 = Agreed capacity (used when submitting available capacity to common platform) A26 = Capacity document (used to transmit remaining capacity from the common platform to the TSOs)	Used	Mandatory
process.processType	A15 = Capacity determination	Used	Mandatory
sender_MarketParticipant.mRID	EIC of the Transmission System Operator when the document type = A31 EIC of the common platform Operator when the DocumentType = A26.	Used	Mandatory
sender_MarketParticipant.marketRole.type	A04 = System operator when the document type = A31 A35 = MOL responsible when the document type = A26	Used	Mandatory
receiver_MarketParticipant.mRID	EIC of the common platform Operator when the document type = A31 EIC of the Transmission System Operator when the document type = A26	Used	Mandatory
receiver_MarketParticipant.marketRole.type	A35 = MOL responsible Operator when the document type = A31 A04 = System operator when the document type = A26	Used	Mandatory
createdDateTime	Date and time of document creation	Used	Mandatory
Period.timeInterval	The duration of the delivery period (initially 1 hour)	Used	Mandatory
domain.mRID	EIC of the region	Used	Mandatory

263

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

<b>Series_Period</b>			
timeInterval	A time interval of the same length as the delivery period (initially 1 hour)	Used	Mandatory
resolution	PT60M PT30M PT15M	Used	Mandatory

<b>Point</b>			
position	Position within the time interval	Used	Mandatory
quantity	Quantity of ATC with 0.1 MW precision	used	Mandatory

<b>Reason (associated with header and point)</b>		Not used	Conditional
--	--	----------	-------------

265 **5.3.3 Dependencies governing the HVDCLink\_marketDocument**

266 The HVDC link market document is used by the transmission system operator to provide all the HVDC constraints and schedules to the common  
 267 platform. This document may optionally also be used by TSOs to provide constraints on AC links.

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

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

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

270



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

Period				
timeInterval	A time interval of the length of the delivery period (initially 1 hour)	Used	Used	Mandatory
resolution	PT60M PT30M PT15M	Used	Used	Mandatory

Point		Constraint	Schedule	
position	Position within the time interval	Used	Used	Mandatory
quantity	The value of the scheduled product. If there are time series for both directions, one of the directions must equal zero (net schedule). Precision is 0.1 MW.	Not used	Used	Conditional
Minimum_Quantity.quantity	The minimum value of power exchange on the HVDC line (or AC link) for a scheduled point. Precision is 0.1 MW. Shall be zero if constraints are provided in both directions for a given position.	Used	Not used	Conditional
Maximum_Qauntity.quantity	The maximum value of power exchange on the HVDC line (or AC link) for a scheduled point. Precision is 0.1 MW.	Used	Not used	Conditional
Optimum_Quantity.quantity	The value of the optimum power exchange on the HVDC line for a scheduled point.	Not used	Not used	Conditional

272

273 **5.3.4 Dependencies governing the ReserveBid\_MarketDocument**

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

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

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

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

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

		OFFER	NEED	XSD requirements
<b>ReserveBid_MarketDocument</b>				
mRID	Unique identification of the Bid Document	Used	Used	Mandatory
revisionNumber	Initial transmission shall equal "1"	Used	Used	Mandatory
type	A37 = Reserve Bid document	Used	Used	Mandatory
process.processType	A46 = Replacement reserve (RR) A47 = Manual frequency restoration reserves (mFRR)	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	Used	Used	Mandatory
receiver_MarketParticipant.marketRole.type	A35 = MOL responsible	Used	Used	Mandatory
createdDateTime	Date and time of document creation	Used	Used	Mandatory
reserveBid_Period.timeInterval	The duration of the delivery period (initially 1 hour)	Used	Used	Mandatory
domain.mRID	EIC of region	Used	Used	Mandatory
subject_MarketParticipant.mRID	EIC of the transmitting TSO	Used	Used	Mandatory

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

282

<b>BidTimeSeries</b>				
mRID	Unique identification of the bid assigned by the transmitting TSO	Used	Used	Mandatory
businessType	B74 = Offer B75 = Need B90 = Flexible need	B74 = Offer	B75 = Need B90 = Flexible need	Mandatory
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 linked together. If one bid is accepted then all others with the same identification must also be accepted. If the bid is not linked then the attribute is not used.	May be used. See note below.	Not used	Conditional
multipartBidIdentification	The identification used to associate multipart bids. If bid with flowDirection.direction=A01 (Up) is accepted then all associated bids with inferior price must also be accepted. If bid with flowDirection.direction=A02 (Down) is accepted then all associated bids with superior price must also be accepted. If the bid is not multipart then the attribute is not used.	May be used. See note below.	Not used	Conditional
exclusiveBidsIdentification	The identification used to associate exclusive bids. If bid is accepted then all others with same identification shall be ignored. If the bid is not exclusive then the attribute is not used.	May be used. See note below.	Not used	Conditional
blockBid	Not used. Redundant due to the existence of Divisible attribute.	Not used	Not used	Optional
status	A06 = Available A11 = No longer available Associated multipart, linked and exclusive bids must have the same status.	Used	Not used	Conditional
priority	A sequential number indicating the priority of the bid in relation to other bids	Not used	Not used	Conditional
stepIncrementQuantity	Not used. For needs and divisible offers the input step increment has been harmonised to 1 MW.	Not used	Not used	Conditional
energyPrice_Measure_Unit.name	MWH = Megawatt hours	Not used	Not used	Conditional
connecting_Domain.mRID	For offers it corresponds to the EIC identification of the sending TSO's scheduling area providing the reserves. For needs it corresponds to the EIC identification of the region providing the reserves	Used	Used	Mandatory
price_Measure_Unit.name	MWH = Megawatt hours. This unit of measure is only provided in the case of a need where there is a price in the point class. Otherwise it is not used	Used	May be used	Conditional

minimum_ConstraintDuration.duration	Not used	Not used	Not used	Conditional
currency_Unit.name	EUR = Euro. This currency is only provided in the case of a need where there is a price in the point class. Otherwise it is not used.	Used	May be used	Conditional
marketAgreement.type	The type of the market agreement	Not used	Not used	Conditional
marketAgreement.mRID	Identification of the agreement with the resource provider	Not used	Not used	Conditional
marketAgreement.createdDateTime	Time stamp used to identify the date and time that a specific offer was received.	Not used	Not used	Conditional
provider_MarketParticipant.mRID	The balance service provider (BSP) identification.	May be used	Not used	Conditional
acquiring_Domain.mRID	For offers it corresponds to the EIC identification of the region. For needs it corresponds to the EIC identification of the sending TSO's scheduling area or control area.	region	TSO's control area or scheduling area	Mandatory
quantity_Measure_Unit.name	MAW = Megawatts	Used	Used	Mandatory
resting_ConstraintDuration.duration	Not used	Not used	Not used	Conditional
maximum_ConstraintDuration.duration	Not used	Not used	Not used	Conditional
registeredResource.mRID	The identification of the resource used to provide the reserves	May be used	Not used	Conditional
activation_ConstraintDuration.duration	Not used	Not used	Not used	Conditional
flowDirection.direction	A01 = UP A02 = DOWN Refer to the price payment table for use in relation to price.  Multipart offers shall have the same direction.	Used	Used	Mandatory
auction.mRID	Constant value of "AUCTION-RR". It identifies that the bid refers to the auction	Used	Used	Mandatory

	specifications for a replacement reserve tender. Other values may be added as the replacement reserve process further evolves.			
validity_Period.timeInterval	The period when the bid can be activated	Not used	Not used	Optional
standard_MarketProduct.marketProductType	Used when the bid refers to a standard product or a specific product that has been converted into a standard product: A01 = Standard product	Used	Not used	Conditional
original_MarketProduct.marketProductType	Used when the bid refers to a specific product or a specific product that has been converted into a standard product: A02 = Specific product A03 = Integrated scheduling process	May be used	Not used	Conditional

283 Note: The attributes linkedBidIdentification, exclusiveBidIdentification and multipartBidIdentification are mutually exclusive and cannot be used in  
 284 combination. Associated bids shall carry the same value in the identification attribute. For example: The document contains three bids that are  
 285 linked – those three bids shall have the same value in the linkedBidIdentification attribute. The values used in these attributes must be unique within  
 286 the document but may be reused in subsequently submitted documents.  
 287

Period				
timeInterval	A time interval within the delivery period. Multipart offers shall have the same timeInterval. Linked offers must have a time interval of exactly 15 minutes. Linked offers may not overlap in time.	Used	Used	Mandatory
resolution	PT60M PT30M PT15M	Used	Used	Mandatory
Point				
position	Position within the time interval	Used	Used	Mandatory
quantity.quantity	Quantity offered or needed with 1 MW precision. Multipart offers shall have constant quantity throughout the Period.	Quantity offered	Quantity needed	Mandatory
minimum_Quantity.quantity	Required if divisible = A01. Precision is 1 MW. Multipart offers shall have constant minimum quantity throughout the Period.	May be used	0	Conditional
price.amount	The price of the product. Precision is 0.01. Multipart offers shall have constant price throughout the Period. Note: Refer to the Price payment table for establishing who is paid.	The price of the offer	May be used to indicate the price cap set by the TSO	Conditional

Energy_Price.amount	Not used	Not used	Not used	Conditional
---------------------	----------	----------	----------	-------------

<b>MBA_Domain (Associated with time series)</b>	Not used	Not used	Not used	<b>Conditional</b>
mRID				

<b>Reason (associated with time series)</b>	<b>Note: This class is strictly associated with the status attribute that has the value of A11 = no longer available.</b>	<b>May be used</b>	<b>Not used</b>	<b>Conditional</b>
code	Refer to the ENTSO-E reason code codelist for appropriate codes.	Used	Not used	
text	Textual information provided by the TSO	May be used	Not used	

288

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

291

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

		Use	XSD requirements
<b>ReserveBid_MarketDocument</b>			
mRID	Unique identification of the Bid Document	Used	Mandatory
revisionNumber	Initial transmission shall equal "1"	Used	Mandatory
type	A37 = Reserve Bid document	Used	Mandatory
process.processType	A46 = Replacement reserve (RR) A47 = Manual frequency restoration reserves (mFRR)	Used	Conditional
sender_MarketParticipant.mRID	EIC of common platform operator	Used	Mandatory
sender_MarketParticipant.marketRole.type	A35 = MOL responsible	Used	Mandatory
receiver_MarketParticipant.mRID	10X1001A1001A450 = EIC of the ENTSO-E transparency platform	Used	Mandatory
receiver_MarketParticipant.marketRole.type	A32 = Market information aggregator	Used	Mandatory
createdDateTime	Date and time of document creation	Used	Mandatory

reserveBid_Period.timeInterval	The duration of the delivery period (initially 1 hour)	Used	Mandatory
domain.mRID	EIC of the region	Used	Mandatory
subject_MarketParticipant.mRID	EIC of common platform Operator	Used	Mandatory
subject_MarketParticipant.marketRole.type	A35 = MOL responsible	Used	Mandatory

292

<b>BidTimeSeries</b>			
mRID	Unique identification of the bid assigned by the transmitting TSO	Used	Mandatory
businessType	B74 = Offer	Used	Mandatory
divisible	A01 = quantity may be reduced to the minimum activation quantity A02 = No reduction possible on the quantity	Used	Mandatory
linkedBidsIdentification	Populated if the bid is linked	May be used	Conditional
multipartBidIdentification	Populated if the bid is multipart	May be used	Conditional
exclusiveBidsIdentification	Populated if the bid is exclusive	May be used	Conditional
blockBid	Not used. Redundant due to the existence of Divisible attribute.	Not used	Optional
status	A06 = Available A11 = No longer available	Used	Conditional
priority	A sequential number indicating the priority of the bid in relation to other bids	Not used	Conditional
stepIncrementQuantity	Not used. For needs and divisible offers the input step increment has been harmonised to 1 MW.	Not used	Conditional
energyPrice_Measure_Unit.name	MWH = Megawatt hours	Not used	Conditional
connecting_Domain.mRID	EIC identification of the sending TSO's scheduling area providing the reserves	Used	Mandatory
price_Measure_Unit.name	MWH = Megawatt hours	Used	Conditional



minimum_ConstraintDuration.duration	Not used	Not used	Conditional
currency_Unit.name	EUR = Euro	Used	Conditional
marketAgreement.type	The type of the market agreement	Not used	Conditional
marketAgreement.mRID	Identification of the agreement with the resource provider	Not used	Conditional
marketAgreement.createdDateTime	Time stamp used to identify the date and time that a specific offer was received.	Not used	Conditional
provider_MarketParticipant.mRID	The balance service provider (BSP) identification	Not used	Conditional
acquiring_Domain.mRID	EIC identification of the region	Used	Mandatory
quantity_Measure_Unit.name	MAW = Megawatts	Used	Mandatory
resting_ConstraintDuration.duration	Not used	Not used	Conditional
maximum_ConstraintDuration.duration	Not used	Not used	Conditional
registeredResource.mRID	The identification of the resource used to provide the reserves	Not used	Conditional
activation_ConstraintDuration.duration	Not used	Not used	Conditional
flowDirection.direction	A01 = UP A02 = DOWN Refer to the price payment table for use in relation to price	Used	Mandatory
auction.mRID	Constant value of "AUCTION-RR". It identifies that the bid refers to the auction	Used	Mandatory

	specifications for a replacement reserve tender		
validity_Period.timeInterval	The period when the bid can be activated	Used	Optional
standard_MarketProduct.marketProductType	Used when the bid refers to a standard product or a specific product that has been converted into a standard product: A01 = Standard product	Used	Conditional
original_MarketProduct.marketProductType	Used when the bid refers to a specific product that has been converted into a standard product: A02 = Specific product A03 = Integrated scheduling process	May be used	Conditional

293

<b>Period</b>			
timeInterval	A time interval within the delivery period	Used	Mandatory
resolution	PT15M	Used	Mandatory
<b>Point</b>			
position	Position within the time interval	Used	Mandatory
quantity.quantity	Quantity offered with 1 MW precision	Used	Mandatory
minimum_Quantity.quantity		Not used	Conditional
price.amount	The price of the product. Precision is 0.01. Refer to the Price payment table for establishing who is paid.	Used	Conditional
Energy_Price.amount	Not used	Not used	Conditional
<b>MBA_Domain (Associated with time series)</b>	Not used	Not used	<b>Conditional</b>



mRID			
------	--	--	--

Reason (associated with time series)		Not used	Conditional
Code		-	
Text		-	

294 **5.3.5 Price payment table**

295 Table 5 provides the domain owner that should pay the price indicated.

296 **Table 5 - Price payment table**

OFFERS					
acquiring_Domain.mRID	Domain where the reserve will be used	region	region	region	region
connecting_Domain.mRID	Domain providing the reserve	TSO control area	TSO control area	TSO control area	TSO control area
flowDirection.direction	Direction of the flow	UP	UP	DOWN	DOWN
Energy_Price.amount	Price of the energy	>0	<0	>0	<0
Which domain owner pays		common platform	TSO	TSO	common platform
NEEDS					
acquiring_Domain.mRID	Domain where the reserve will be used	TSO control area	TSO control area	TSO control area	TSO control area
connecting_Domain.mRID	Domain providing the reserve	region	region	region	region
flowDirection.direction	Direction of the flow	UP	UP	DOWN	DOWN
Energy_Price.amount	Price of the energy	>0	<0	>0	<0
Which domain owner pays		TSO	Common platform	Common platform	TSO

297

298 **5.3.6 Dependencies governing the MeritOrderList\_MarketDocument**

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

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

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

		OFFER	NEED	XSD requirements
<b>MeritOrderList_MarketDocument</b>				
mRID	Unique identification of the MOL Document	Used	Used	Mandatory
revisionNumber	Initial transmission shall equal "1"	Used	Used	Mandatory
Type	A66 = Final MOL (used when no constraints were imposed or the control area of the receiving TSO was decoupled) B23 = offers to be activated (results from constrained optimisation, used when constraints were imposed) B24 = clearing price (results from unconstrained optimisation, used when constraints were imposed)	Used	Used	Mandatory
process.processType	A46 = Replacement reserve (RR) A47 = Manual frequency restoration reserves (mFRR)	Used	Used	Conditional
sender_MarketParticipant.mRID	EIC of the common Operator	Used	Used	Mandatory
sender_MarketParticipant.marketRole.type	A35 = MOL responsible	Used	Used	Mandatory
receiver_MarketParticipant.mRID	EIC of the Transmission System Operator	Used	Used	Mandatory
receiver_MarketParticipant.marketRole.type	A04 = System operator	Used	Used	Mandatory
createdDateTime	Date and time of document creation	Used	Used	Mandatory
Period.timeInterval	The duration of the delivery period (initially 1 hour)	Used	Used	Mandatory
domain.mRID	EIC of the region	Used	Used	Conditional

303

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

direction	A01 = UP 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 needs and divisible offers the output step increment has been harmonised to 0.1 MW.	Not used	Used	Conditional
marketObjectStatus.status	A06 = available (the offer has not been required) A10 = Ordered (i.e. common platform has requested that the TSO activate an offer) A33 = Not satisfied (i.e. The need cannot be satisfied by the common platform)	A06 = available A10 = ordered	A10 = ordered A33 = Not satisfied	Mandatory

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

304

Point				
position	Position within the time interval	Used	Used	Mandatory
quantity.quantity	Quantity offered or needed	Quantity offered	Quantity needed	Mandatory
price.amount	The price for activating the product	Used when offer accepted	Used when need satisfied and price available <sup>(1)</sup>	Conditional
Energy_Price.amount	The price of energy	Not used	Not used	Conditional

activated_Quantity.quantity	Quantity activated	Quantity to be activated	Quantity for which activation has been requested	Conditional
-----------------------------	--------------------	--------------------------	--	-------------

305

Reason (associated with time series)		May be used	May be used	Conditional
code	A95 = Complementary information	Used	Used	
text	Textual information provided by the TSO	May be used	May be used	

306

(1) When netting of inelastic needs only occurred, no price is available.



307

308 **5.3.7 Dependencies governing the Schedule\_MarketDocument**

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

312 Table 7 provides the dependencies for the schedule market document.

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

		Use	XSD requirements
<b>Schedule_MarketDocument</b>			
mRID	Unique identification of the Schedule Document	Used	Mandatory
revisionNumber	Initial transmission shall equal "1"	Used	Mandatory
type	A30 = Cross border schedule B17 = Aggregated netted external TSO schedule document	Used	Mandatory
process.processType	A46 = Replacement reserve (RR) A47 = Manual frequency restoration reserves (mFRR)	Used	Mandatory
process.ClassificationType	A01 = Detail type	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 Transmission System Operator	Used	Mandatory
receiver_MarketParticipant.marketRole.type	A04 = System operator A32 = Market Information Aggregator	Used	Mandatory
createdDateTime	Date and time of document creation	Used	Mandatory
schedule_Time_Period.timeInterval	The duration of the delivery period (initially 1 hour)	Used	Mandatory
domain.mRID	EIC of the region	Used	Mandatory
subject_MarketParticipant.mRID	EIC of the receiving TSO	Used	Mandatory
subject_MarketParticipant.markRole.type	A04 = System Operator	Used	Mandatory
matching_Time_Period.timeInterval	Matching period for the schedule document	Not used	Conditional

314

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

315

Series_Period			
timeInterval	A time interval of the length of the delivery period (initially 1 hour)	Used	Mandatory
resolution	PT60M PT30M PT15M	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

316 Notes:

- 317 1. When Business type is B09 = Net position and TSO is exporting, the in\_Domain shall  
 318 be populated with the region and out\_Domain with the TSO's scheduling area. When  
 319 TSO is importing, in\_Domain shall be populated with the TSO's scheduling area and  
 320 out\_Domain with the region.
- 321 2. Information on In and Out Market Participants will be included for select scheduling  
 322 areas, due to local market rules for handling of reserve products: When B09 = Net  
 323 position out\_MarketParticipant or in\_MarketParticipant will be populated with the  
 324 party code of the BRP, depending on whether the TSO is importing or exporting

325 energy. The other attribute will be populated with the party code of the entity  
326 operating the common platform.

327 **5.3.8 Dependencies governing the EnergyAccount\_MarketDocument**

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

- 331 1. To provide the financial settlement of the net positions;  
332 2. To provide the congestion income;  
333 3. To provide the settlement of price divergence without congestion;  
334 4. To provide the settlement of inelastic need netting;  
335 5. To provide the values for financial compensation or penalties due to the imposition of  
336 constraints on interconnectors.

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

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

		Use	XSD requirements
<b>EnergyAccount_MarketDocument</b>			
mRID	Unique identification of the Energy Account market Document	Used	Mandatory
revisionNumber	Initial transmission shall equal "1"	Used	Mandatory
type	A12 = Imbalance report	Used	Mandatory
docStatus	A02 = Final	Used	Mandatory
process.processType	A06 = Imbalance settlement	Used	Mandatory
process.ClassificationType	A01 = Detail type	Used	Mandatory
sender_MarketParticipant.mRID	EIC of the common platform Operator	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	Used	Mandatory
domain.mRID	EIC of the region	Used	Conditional

339

<b>TimeSeries</b>			
mRID	Unique identification of the time series	Used	Mandatory
businessType	A24 Total trade where the time series covers financial values; B10 = Congestion income; C03 = price divergence; B76 = Opportunity costs or benefits (settlement of inelastic need netting); B77 = Financial compensation or penalties	Used	Mandatory
product	8716867000016 = Active power	Used	Mandatory
objectAggregation	A01 = Area	Used	Mandatory
area_Domain.mRID	EIC identification of the control area	Used	Mandatory
MarketParticipant.mRID	identification of TSO responsible for the area	Used	Conditional

340

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

Series_Period			
timeInterval	A time interval of the settlement period	Used	Mandatory
resolution	PT15M	Used	Mandatory

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

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

<b>Reason (associated with Point)</b>		<b>Not used</b>	<b>Conditional</b>
---	--	-----------------	--------------------

343

344 **5.3.9 Financial amount table**

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

346

**Table 9 – Financial amount table**

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

347

348 **5.3.10 Dependencies governing the Balancing\_MarketDocument**

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

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

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

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

		Use	XSD requirements
<b>Balancing_MarketDocument</b>			
mRID	Unique identification of the balancing market Document	Used	Mandatory
revisionNumber	Initial transmission shall equal "1"	Used	Mandatory
type	A84 = activated balancing price	Used	Mandatory
process.processType	A16 = Realised	Used	Mandatory
sender_MarketParticipant.mRID	EIC of the common platform Operator	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
controlArea.Domain.mRID	Scheduling area described by the document	Used	Conditional
Period.timeInterval	The duration of the delivery period covered by the document.	Used	Mandatory
allocationDecision_DateAndOrTime	Date and time when the decision on allocation was made	Not used	Optional

<b>TimeSeries</b>			
mRID	Unique identification of the time series	Used	Mandatory
businessType	A98 = replacement reserve	Used	Mandatory
curveType	A01 = Sequential fixed block	Used	Conditional
cancelledTS	If the data for a time series has been cancelled this attribute shall be specified with A02 = Yes	Not used	Conditional
quantity_Measure_Unit.name	MAW = Megawatts	Not used	Conditional
mktPSRType.psrType	Identification of the source type of the reserve	Not used	Conditional
acquiring_Domain.mRID		Not used	Conditional
price_Measure_Unit.name	MWH= Megawatt hours	Used	Conditional
connecting_Domain.mRID		Not used	Conditional
currency_Unit.name	EUR = Euro	Used	Conditional

flowDirection.direction	A01 = Up A02 = Down	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	Used when the reported quantities refer to specific products: A02 = Specific product A03 = Integrated scheduling process	Not used	Conditional

359

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

Point			
position	Position within the time interval	Used	Mandatory
quantity	The accepted offer quantity identified for a point.	Not used	Conditional
secondaryQuantity	The activated quantity	Not used	Conditional
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
unavailable_Quantity	The unavailable quantity	Not used	Conditional

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

360

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

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

		Use	XSD requirements
<b>Balancing_MarketDocument</b>			
mRID	Unique identification of the balancing market Document	Used	Mandatory

revisionNumber	Initial transmission shall equal "1"	Used	Mandatory
type	A84 = activated balancing price	Used	Mandatory
process.processType	A16 = Realised	Used	Mandatory
sender_MarketParticipant.mRID	EIC of the common platform Operator	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
controlArea.Domain.mRID	Scheduling area described by the document	Used	Conditional
Period.timeInterval	The duration of the delivery period covered by the document.	Used	Mandatory
allocationDecision_DateAndOrTime	Date and time when the decision on allocation was made	Not used	Optional

<b>TimeSeries</b>			
mRID	Unique identification of the time series	Used	Mandatory
businessType	A98 = replacement reserve	Used	Mandatory
curveType	A01 = Sequential fixed block	Used	Conditional
cancelledTS	If the data for a time series has been cancelled this attribute shall be specified with A02 = Yes	Not used	Conditional
quantity_Measure_Unit.name	MAW = Megawatts	Not used	Conditional
mktPSRType.psrType	Identification of the source type of the reserve	Not used	Conditional
acquiring_Domain.mRID		Not used	Conditional
price_Measure_Unit.name	MWH= Megawatt hours	Used	Conditional
connecting_Domain.mRID		Not used	Conditional
currency_Unit.name	EUR = Euro	Used	Conditional
flowDirection.direction	A03 = Up and Down	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

<b>Series_Period</b>			
----------------------	--	--	--



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

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

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

366

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

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

		Use	XSD requirements
<b>Balancing_MarketDocument</b>			
mRID	Unique identification of the balancing market Document	Used	Mandatory
revisionNumber	Initial transmission shall equal "1"	Used	Mandatory
type	A24 = Bid document	Used	Mandatory
process.processType	A46 = Replacement reserve (RR)	Used	Mandatory
sender_MarketParticipant.mRID	EIC of the common platform Operator	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
controlArea.Domain.mRID	Scheduling area described by the document	Used	Conditional

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

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

371

Series_Period			
timeInterval	A time interval equal to the delivery period	Used	Mandatory
resolution	PT15M	Used	Mandatory

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

unavailable_Quantity	The unavailable quantity	Used	Conditional
----------------------	--------------------------	------	-------------

<b>Financial_Price (associated with Point)</b>		<b>Not used</b>	<b>Conditional</b>
amount		Not used	Mandatory
Direction		Not used	Conditional

372

373

374 **5.3.11 Dependencies governing the Reporting\_MarketDocument**

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

380 There will be separate virtual scheduling areas corresponding to the regions for RR and  
 381 mFRR, respectively.

382 Table 13 provides the dependencies for the reporting market document.

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

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

384

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

385 Note 1: The in\_Domain or the out\_Domain must identify the region, also referred to as the  
 386 virtual scheduling area. The other domain shall be equivalent to a TSO's scheduling area.

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

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

## 389 **6 Contextual and assembly models**

### 390 **6.1 Capacity market document**

391 The contextual and assembly models for the capacity market document shall be based on  
392 the equivalent models as defined in urn:iec62325.351:tc57wg16:451-  
393 3:capacitydocument:8:0.

### 394 **6.2 HVDC link market document**

395 The contextual and assembly models for the HVDC link market document shall be based on  
396 the equivalent models as defined in urn:iec62325.351:tc57wg16:451-  
397 8:hvdclinkdocument:1:0.

### 398 **6.3 Reserve bid market document**

399 The contextual and assembly models for the reserve bid market document shall be based on  
400 the equivalent models as defined in urn:iec62325.351:tc57wg16:451-  
401 7:reservebiddocument:7:1.

### 402 **6.4 Merit order list market document**

403 The contextual and assembly models for the merit order list market document shall be based  
404 on the equivalent models as defined in urn:iec62325.351:tc57wg16:451-7:moldocument:7:0.

### 405 **6.5 Schedule market document**

406 The contextual and assembly models for the schedule market document shall be based on  
407 the equivalent models as defined in urn:iec62325.351:tc57wg16:451-  
408 2:scheduledocument:5:0.

### 409 **6.6 Energy account market document**

410 The contextual and assembly models for the energy account market document shall be  
411 based on the equivalent models as defined in urn:iec62325.351:tc57wg16:451-  
412 4:energyaccountdocument:4:0.

### 413 **6.7 Balancing market document**

414 The contextual and assembly models for the balancing market document shall be based on  
415 the equivalent models as defined in urn:iec62325.351:tc57wg16:451-  
416 6:balancingdocument:4:0.

### 417 **6.8 Reporting market document**

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

421 **7 XML schema**

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

424