



European Network of
Transmission System Operators
for Electricity

CAPACITY MANAGEMENT MODULE IMPLEMENTATION GUIDE

2022-10-19

VERSION 1.0.0

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

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

39

Revision History

40

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Table 1 Revision History

Version	Release	Date	Comments
0.1	1	15.12.2021	First draft
0.2	1	07.01.2022	Internal revision cycle
0.3	1	10.01.2022	Internal revision cycle
0.4	1	12.01.2022	Internal revision cycle
0.5	1	17.01.2022	Sent for Revision
0.6	1	08.02.2022	Sent for Revision
0.7	1	23.02.2022	Sent for Revision
0.8	1	14.06.2022	Incorporated MARI SC decisions on open issues
0.9	1	16.07.2022	Incorporated remarks from ENTSO-E WG ESMP
0.9.1	1		Incorporated remarks from MARI SC revision 26/7 (SWISSGRID, ELES, PSE)
0.9.2	1		Incorporated remarks from ESMP WG and CIM WG.
1.0.0	1	19.10.2022	Approved version for publishing on ENTSO-E website Approved by ICTC.

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95 **1 Scope**

96 This implementation guide defines the data exchanges between the Capacity Management
97 Module (CMM) and its participating parties.

98 **2 References**

99 **2.1 Normative references**

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

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

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

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

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

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

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

117 *IEC 62325-451-5, Framework for energy market communications - Part 451-5: Problem*
118 *statement and status request business processes, contextual and assembly models for*
119 *European market*

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

122 **2.1 Other references**

123 *Common Platform for Replacement Reserves Implementation Guide v1.1*

124 *Common Platform for manually activated restoration reserves Implementation Guide v1.4*

125 *ENTSO-E Automatic Frequency Restoration Reserve Process Implementation Guide v1.0*

126 *The Harmonised Electricity Market Role Model [Harmonised Role Model 2022-01.pdf](#)*
127 *entsoe.eu*

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129 **3 Terms and definitions**

130 **AOF**

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

132 **Area**

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

135 **BCCO**

136 Balancing Capacity Cooperation Operator. Provides CZCA (volumes of cross
137 zonal capacity allocated ahead of particular balancing process/es)

138 **CZCA**

139 Capacity allocated for sharing or exchange of balancing capacity between two or
140 more Areas for individual processes and direction. It means volumes of shared or
141 exchanged cross zonal balancing capacity allocated in advance; also as defined
142 by EBGL art. 38(1)(b) and art. 41.

143 **CMF**

144 Capacity Management Function is function performed by Capacity Management
145 Module to determine cross-zonal capacity limit for the balancing cross-zonal
146 allocation.

147 **CBCL**

148 Cross-border capacity limit (equal to CZCL)

149 **CZCL**

150 Cross-zonal capacity limit (equal to CBCL)

151 **XB**

152 Cross-border

153 **RR Interconnector**

154 Borders participating in RR process (possibly also in other processes)

155 **Non-RR Interconnector**

156 Borders not participating in RR process but participating in mFRR and/or PICASSO process

157 **mFRR DA**

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

160 **mFRR SA**

161 Scheduled activation can be initiated only at a specific point in time in relation to
162 given MTU

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163 **QH**
164 Quarter hour

165 **aFRR**

166 Automatic frequency restoration reserves; the FRR that can be activated by an
167 automatic control device (load-frequency controller) designed to regulate the
168 Frequency Restoration Control Error (FRCE) to zero.

169 **mFRR**

170 Manual frequency restoration reserves; the FRR that can be activated by an
171 manual trigger, as required by TSO Control Centre. This tertiary control reserve
172 intervenes when there are longer lasting deviations in the power grid that cannot
173 be resolved solely by the other downstream balancing services (FCR or aFRR).

174 **RR**

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

179 **IN**

180 Imbalance netting; the IN is a real-time process of netting of aFRR Demands
181 between the TSO in order to avoid aFRR activation in opposite direction in each
182 LFC area.

183 **DP**

184 Delivery period

185 **MTU**

186 Market time Unit

187 **4 The CMM business process**

188 **4.1 General introduction to CMM process**

189 The CMM process is based on continuous update and provision of capacity to balancing
190 platforms. The process for one quarter hour for non-RR and one hour for RR is chronologically
191 described in the table below. The continuity of the process is pictured in the process timeline
192 Table 2 below.

193
194 NTC, AAC, CZCA and CZCL data shall be exchanged with 15 minute resolution and during a
195 transitory period (RR works with 60-minute gates), until full harmonization of XB scheduling steps
196 at 15 minutes, CMM will transform input Tso's data provided with 30- or 60-minute resolution into
197 15-minute resolution.

198
199 These deliverables will be part of CMM future versions: Affected TSO procedure (V2), BCCO
200 connection (V?), Ramping (V3).

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202

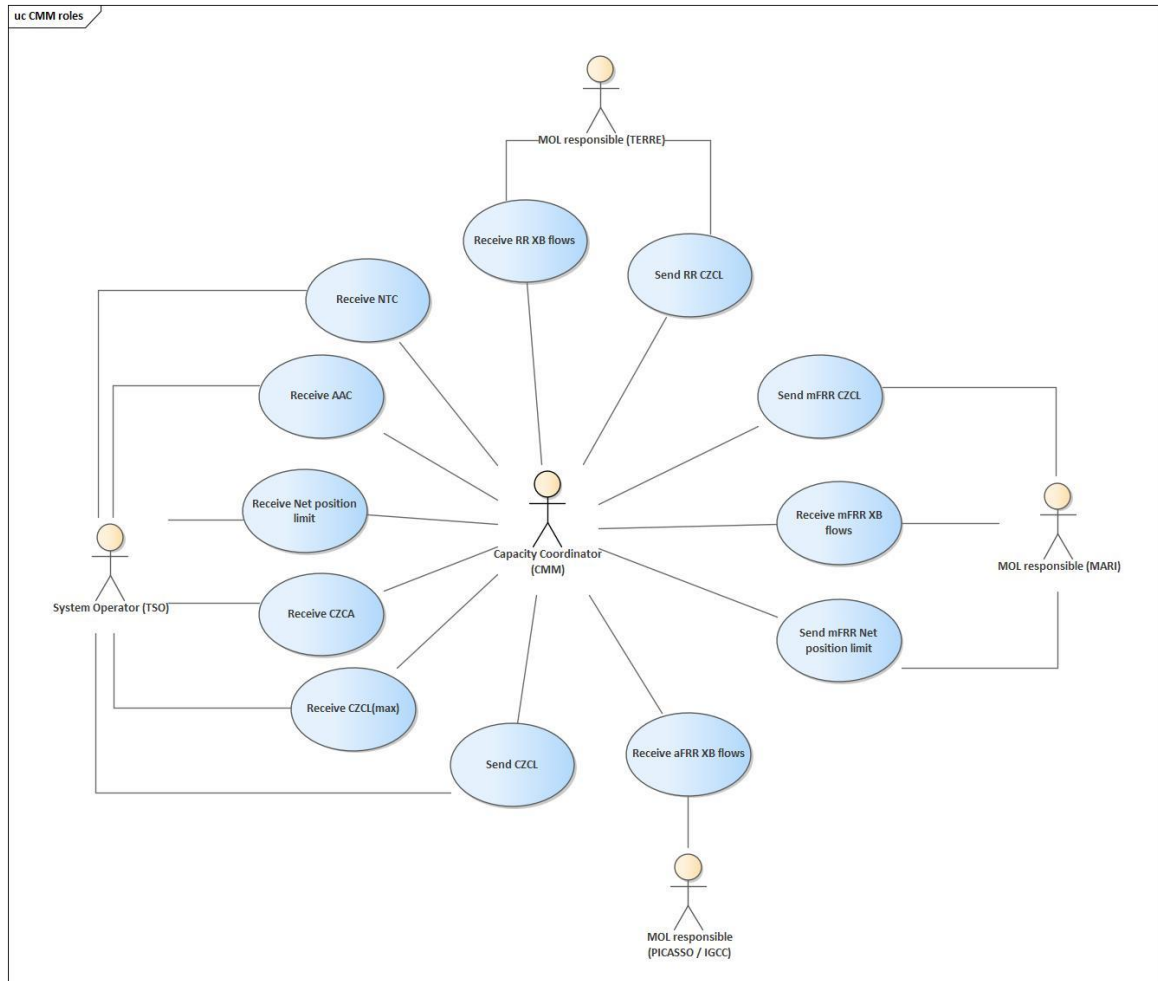
203
204
205

Table 2 Timeline of the process

Flow number	From	Action	Information	To	Time of receiving
1a	RR TSOs*	submits	NTC, AAC,	CMM	at the latest T-42
1b	BCCO or TSO	submits	CZCA for RR	CMM	at the latest T-42
1c	CMM	sends	Problem document if the data is missing	TERRE, TSOs	T-42
1d	Non-RR TSOs	submits	NTC, Net position limits, AAC	CMM	at the latest T-30
1e	BCCO or TSO	submits	CZCA for mFRR and aFRR	CMM	at the latest T-30
1f	Fingrid, Elering, possibly also other Nordic TSOs	submits	NTC, Net position limits, XB flows after IntraDay	CMM	T-25
1g	CMM	sends	Problem document if the data is missing	TSO	T-30
1h	CMM	sends	Problem document if the data is missing	Fingrid, Elering	T-25
2	CMM	Calculates	RR CZCL	-	<T-42; T-41>
3a	CMM	submits	RR CZCL	TERRE, TSOs	T-40
3b	RR	submits	XB flows for entire hour	CMM	At the latest T-30
4	CMM	calculates	CZCL		T-25
5a	CMM	submits	CZCL, Net position limits,	MARI, TSOs	T-24
5b	MARI	submits	XB flows of MARI SA	CMM	T-8
5e	MARI	submits	XB flows of MARI DA**	CMM	<T-7; T+6>
6	CMM	calculates	CZCL		<T-8; T+15>
7a	CMM	submits	CZCL	PICASSO, TSOs	<T-8; T+15>
7b	PICASSO	submits	XB flows	CMM	T+15
update	TSO	submits	Correction of NTC/AAC	CMM	<T-42; T+15>
8a	CMM	archives	Data	database	T+20

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208 **4.2 Roles and Use cases**



209
210

Figure 1 CMM Roles and use cases

211 **4.2.1 Roles**

212

Table 3 Roles

Role Label	Role Description
System Operator	A natural or legal person responsible for operating the transmission system in each area, including the balancing of the generation and consumption, and, where applicable, its interconnections with other systems. System operator is providing the cross-zonal capacities to CMM and controlling allocation processes while respecting all limitations.

<p>Merit Order List Responsible</p>	<p>TERRE is a European platform for the replacement reserve exchange in accordance with Article 19 of Commission Regulation (EU) 2017/2195 establishing a guideline on electricity balancing (RR implementation framework).</p> <p>MARI is a European platform for the exchange of balancing energy from frequency restoration reserves with manual activation in accordance with Article 20 of Commission Regulation (EU) 2017/2195 establishing a guideline on electricity balancing (mFRR Implementation framework).</p> <p>PICASSO is a European platform for the exchange of balancing energy from frequency restoration reserves with automatic activation in accordance with Article 21 of Commission Regulation (EU) 2017/2195 of 23 November 2017 establishing a guideline on electricity balancing (aFRR Implementation framework).</p> <p>IGCC is a European platform for the imbalance netting process in accordance with Article 22 of Commission Regulation (EU) 2017/2195 of 23 November 2017 establishing a guideline on electricity balancing (IN Implementation framework).</p>
<p>Capacity Coordinator</p>	<p>CMM is an IT system for management of CZCL among all European platforms (TERRE, MARI, PICASSO) for the exchange of balancing energy and TSOs developed in line with the requirements of the European platforms (respecting relevant implementation frameworks and their legal deadline), while respecting availability and performance requirements.</p>

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215 **4.2.2 Use cases**

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Table 4 Use cases

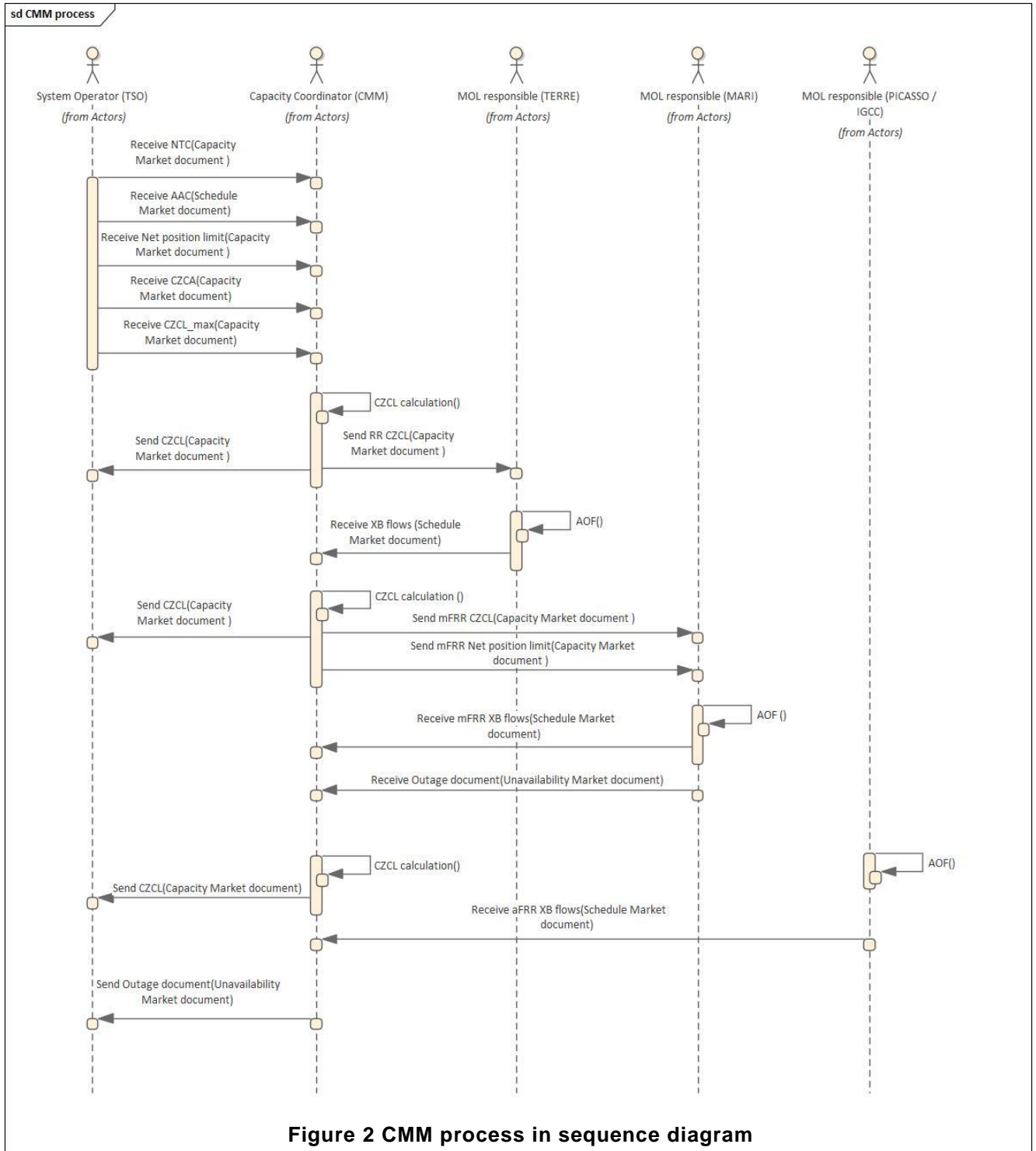
Use case label	Roles involved	Action descriptions and assertions
Receive NTC	<ul style="list-style-type: none"> • System Operator • Capacity Coordinator 	<p>The participating TSOs shall provide Net Transfer Capacity (NTC) to the CMM. This information will be used in calculating Cross-zonal Capacity Limits (CZCL). TSOs may submit updates to NTC continuously within respective balancing processes windows. In contrary to the rest of the values send by TSOs, NTC can be negative.</p>
Receive AAC	<ul style="list-style-type: none"> • System Operator • Capacity Coordinator 	<p>The participating TSOs shall provide Already Allocated Capacity (AAC) to the CMM platform after the Single IntraDay Coupling (SIDC) after the relevant SIDC Gate Closure Time. This information will be used in calculating Cross-zonal Capacity Limits (CZCL). TSOs may submit updates to AAC continuously within respective balancing processes windows.</p>
Receive Net Position Limit	<ul style="list-style-type: none"> • System Operator • Capacity Coordinator 	<p>The participating TSOs have the opportunity to provide Net Position Limit value per process or provide a single value applicable to both mFRR and aFRR processes with consideration to RR XB flows, if desired by the TSO. This information will serve as an additional information for balancing platforms in order to limit the exchanges within areas. TSOs may submit updates to Net position limit continuously within respective balancing processes windows</p>
Receive CZCA	<ul style="list-style-type: none"> • System Operator • Capacity Coordinator 	<p>The participating TSOs have the opportunity to provide Cross-zonal capacity allocations (CZCA) per process to the CMM platform. This information will be used in calculating Cross-zonal Capacity Limits (CZCL). TSOs may submit updates to CZCA continuously within respective balancing processes windows.</p>

Send CZCL	<ul style="list-style-type: none"> • System Operator • Capacity Coordinator 	Resulting CZCLs may be sent to the TSOs after each change.
Receive CZCL _{max})	<ul style="list-style-type: none"> • System Operator • Capacity Coordinator 	The participating TSOs have the opportunity to provide the CZCL _{max} value per process or one value for whole balancing timeframe. This limits the maximum possible value for the CZCL determined by the CMM for given balancing process. TSOs may submit updates to CZCL _{max} continuously within respective balancing processes windows.
Send RR CZCL	<ul style="list-style-type: none"> • Capacity Coordinator • Merit Order List Responsible 	<p>The CMM provides to the TERRE platform the CZCLs (TERRE refers –available transmission capacity ATC).</p> <p>CMM submits updates of CZCL for the current MTU during the corresponding RR process (if update of NTC, CZCL_{max}, AAC or/and CZCA is submitted by TSO).</p>
Receive RR XB flows	<ul style="list-style-type: none"> • Capacity Coordinator • Merit Order List Responsible 	The RR platform informs the CMM of the XB flows resulting from RR process (refer to Cross border schedules in RR).
Send mFRR CZCL	<ul style="list-style-type: none"> • Capacity Coordinator • Merit Order List Responsible • 	<p>The CMM provides to the MARI platform the CZCLs (MARI refers to cross-border capacity limits - CBCLs).</p> <p>CMM submits updates of CZCL for the current MTU during the corresponding mFRR process (if update of NTC, CZCL_{max}, AAC or/and CZCA is submitted by TSO).</p>

Receive mFRR XB flows	<ul style="list-style-type: none"> • Capacity Coordinator • Merit Order List Responsible 	The MARI platform informs the CMM of the XB flows (in MARI referred as cross-border flows) resulting from scheduled and direct activations, respectively.
Send mFRR Net position limit	<ul style="list-style-type: none"> • Capacity Coordinator • Merit Order List Responsible 	CMM shall provide mFRR platform with the Net position limit, if a TSO desires to use this kind of limitation. This information serves as an additional information for balancing platforms in order to limit the net position within areas.
Receive aFRR XB flows	<ul style="list-style-type: none"> • Capacity Coordinator • Merit Order List Responsible 	aFRR platform provides after each finished QH to the CMM the aFRR XB-flows (quarter-hour average, for the whole QH) via Schedule market document.

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220 **4.3 Document exchange processes**



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224 **4.4 General Overview**

225 This Implementation Guide provides the means of exchanging data between the CMM and all
226 concerned parties necessary to fulfill the CMM process outlined above.

227 Input data sent from TSO to CMM cannot contain values for RR and non-RR interconnectors in
228 one document. Values must be submitted separately. For RR interconnector 60-minute time
229 interval is expected, for non-RR interconnectors 15-minute time interval is expected.

230

231 Net position limit is submitted together with NTC in the same document. The value for NPL is
232 distinguished by the use of *in_Domain* and *out_Domain* mRIDs elements.

233 **4.4.1.1 Receive NTC**

234 NTC can be received for technical profile as well (Technical profile does not apply in RR).

235 **4.4.1.2 Receive AAC**

236 AAC is received separately for RR and non-RR interconnectors. For RR interconnector 60
237 minute MTU is expected, for non-RR interconnectors 15 minute MTU is expected. AAC can be
238 received for technical profile as well. For Gross technical profiles individual files are expected:
239 1) intraday AAC for each interconnector participating in technical profile, and 2) day ahead and
240 long-term AAC for technical profile.

241 **4.4.1.3 Receive Net position limit**

242 Net position limit does not apply in RR.

243 **4.4.1.4 Problem Statement document**

244 The balancing platform shall send out a Problem Statement document in case a problem (such
245 as missing data) occurred during the process or the balancing platform becomes unavailable or
246 experiences a failure, the balancing platform sends a Problem Statement document to the CMM
247 and TSOs participating in the process.

248 **4.4.1.5 Send CZCL**

249 The CMM platform sends CZCL after end of every calculation to TSOs as well to balancing
250 platforms with the exception of aFRR which is only sent to TSOs (aFRR CZCL is sent via signals
251 and not with EDI document).

252 **4.4.1.6 Outage document**

253 The CMM shall send out Outage document in case capacity management process itself has
254 stopped or started, balancing platform or TSO has been disconnected or reconnected from/to
255 the capacity management process, a future dated disconnection/reconnection is recorded or
256 any subsequent updates to the corresponding start and end times.

257 **4.4.1.7 Acknowledgement – Acknowledgement Market Document**

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

261 **4.4.1.8 Regions**

262 The RR, mFRR and aFRR processes described in this chapter will be executed separately for
263 each region as defined below in *Table 5*.

264

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Table 5 Region codes*

Process	Region	Geographical scope
RR	Western Europe	UK-FR-CH-IT-ES-PT
RR	Central Europe	PL-CZ
RR	Eastern Europe	HU-RO
mFRR	virtual scheduling area	scheduling areas of all TSOs participating in the mFRR process
aFRR	virtual scheduling area	scheduling areas of all TSOs participating in the aFRR process
CMF	Balancing Capacity Calculation Region	Area participating in CMM

266 *See [Approved EIC CODES \(entsoe.eu\)](https://www.entsoe.eu) for EIC codes of above regions.

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

268 **4.4.1.9 Versioning**

269 For all business documents, higher versions must contain the same number of time series and
 270 cover the same time interval. If platform for a given border, interconnector, technical profile or
 271 area and time interval already has received and successfully validated data (NTC, AAC, CZCA,
 272 NPL, CZCLmax) from given data provider, any data subsequently received from same data
 273 provider for the same border, interconnector, technical profile or area and time interval but with
 274 a different document ID shall be rejected.

275 **4.4.1.10 Validation**

276 The CMM platform will as far as technically feasible validate that submitted data complies with
 277 the business rules and permitted combinations of attributes as articulated by this
 278 implementation guide. Any data submission that fails such validation will be rejected by the
 279 platform.

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287 **4.5 Document overview**

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

290 **Table 6 Applicable EDI documents**

EDI document	version
Capacity Market document	urn :iec62325.351 :tc 57wg16 :451-3 :capacitydocument :8 :0
Schedule market document	urn:iec62325.351:tc57wg16:451-2:scheduledocument:5:1.
Acknowledgement document	urn:iec62325.351:tc57wg16:451-1:acknowledgementdocument:8:0 for RR urn:iec62325.351:tc57wg16:451-1:acknowledgementdocument:8:1
Problem Statement document	urn:iec62325.351:tc57wg16:451-5:problemdocument:3:0
Unavailability market document	urn:iec62325.351:tc57wg16:451-6:outagedocument:4:0

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

292 **4.6 Capacity_MarketDocument**

293 The capacity market document is used to provide the Net Transfer Capacity (NTC) and Net Position Limit (NPL) for borders, interconnectors and
294 technical profiles to the CMM platform by the TSOs. It is also used to provide Cross-Zonal Capacity Allocations (CZCA) to CMM by BCCOs and/or
295 TSOs. The Capacity_MarketDocument is then used to provide cross-zonal capacity limits and net position limits when applicable during exactly one
296 DP to LIBRA platform for the RR and one MTU period for the mFRR processes by the CMM platform. For a given border, interconnector or area,
297 values must be provided for both directions in the same file.

298 TSOs shall send one Capacity Market Document with one value for each quarter-hour for non-RR interconnectors. For RR interconnectors separate
299 Capacity Market Document with four values for each hour is expected. RR and non-RR interconnectors can't be sent in one Capacity Market Document.

300 **Table 7 Capacity market document dependency table (submission of NTC/NPL to CMM platform)**

		Use	XSD requirements
Capacity_MarketDocument			
mRID	Unique identification of the Capacity Document	Used	Mandatory
revisionNumber	Initial transmission should normally equal "1"	Used	Mandatory
type	A26 = Capacity document (used when submitting Net transfer capacity, net position (profile) limits or technical profiles to CMM platform)	Used	Mandatory
process.processType	A15 = Capacity determination (used to send NTC for entire balancing timeframe) A47 = Manual frequency restoration reserve (only used to send Net position limit for mFRR) A51 = Automatic frequency restoration reserve (only used to send Net Position limit for aFRR) A56 = Frequency restoration reserve (used for aggregated Net position limit for mFRR and aFRR which takes RR XB flows into consideration)	Used	Mandatory
sender_MarketParticipant.mRID	EIC of the Transmission System Operator	Used	Mandatory
sender_MarketParticipant.marketRole.type	A04 = System operator	Used	Mandatory
receiver_MarketParticipant.mRID	EIC of the CMM platform	Used	Mandatory
receiver_MarketParticipant.marketRole.type	A36 = Capacity Coordinator	Used	Mandatory
createdDateTime	Date and time of document creation	Used	Mandatory
Period.timeInterval	Duration of delivery period (initially 1 hour) for RR interconnectors Duration of MTU/delivery period (15 minutes) otherwise	Used	Mandatory
domain.mRID	EIC of the CMM region	Used	Mandatory

		Use	XSD requirements
TimeSeries			
mRID	The unique identification of the time series within the document	Used	Mandatory
businessType	A27 = NTC	Used	Mandatory
product	8716867000016 = active power	Used	Mandatory
in_Domain.mRID	EIC identification of the area (either of interconnector or technical profile) 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 (either of interconnector or technical profile) 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	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

Series_Period			
timeInterval	A time interval of the same length as the Period.timeInterval	Used	Mandatory
resolution	Shall coincide with the scheduling step of the border. For RR following scheduling steps are supported: PT60M PT30M PT15M Otherwise PT15M	Used	Mandatory

Point			
position	Position within the time interval	Used	Mandatory

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		Use	XSD requirements
quantity	Quantity of limit with 0.1 MW precision	used	Mandatory

Reason (associated with time series)	Exactly one instance of Reason class may be included 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	

Reason (associated with point)	Exactly one instance of Reason class may be included 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	

Table 8 Capacity market document dependency table (submission of CZCA to CMM platform)

		Use	XSD requirements
Capacity_MarketDocument			
mRID	Unique identification of the Capacity Document	Used	Mandatory
revisionNumber	Initial transmission should normally equal "1"	Used	Mandatory
type	A13 = interconnection capacity	Used	Mandatory
process.processType	A46 = Replacement reserve (RR) A47 = Manual frequency restoration reserve (mFRR) A51 = Automatic frequency restoration reserve (aFRR)	Used	Mandatory
sender_MarketParticipant.mRID	EIC of the Transmission System Operator or Balancing capacity cooperation operator	Used	Mandatory
sender_MarketParticipant.marketRole.type	A04 = System operator	Used	Mandatory
receiver_MarketParticipant.mRID	EIC of the CMM platform Operator	Used	Mandatory
receiver_MarketParticipant.marketRole.type	A36 = Capacity Coordinator	Used	Mandatory

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		Use	XSD requirements
createdDateTime	Date and time of document creation	Used	Mandatory
Period.timeInterval	Duration of delivery period (initially 1 hour) when processType = A46 Duration of MTU/delivery period (15 minutes) otherwise	Used	Mandatory
domain.mRID	EIC of the CMM region	Used	Mandatory

TimeSeries			
mRID	The unique identification of the time series within the document	Used	Mandatory
businessType	C88 = Reserved cross zonal capacity	Used	Mandatory
product	8716867000016 = active power	Used	Mandatory
in_Domain.mRID	EIC identification of the area where the power is being put.	Used	Mandatory
out_Domain.mRID	EIC identification of the area where the power is coming from.	Used	Mandatory
measure_Unit.name	MAW = Megawatts	Used	Mandatory
auction.mRID	The identification of an auction specification	Not used	Conditional
auction.category	The category under which capacity is classified	Not used	Conditional
curveType	A01 = Sequential fixed size block.	Used	Mandatory
connectingLine_RegisteredResource.mRID	The identification of a set of lines that connect two areas together. This is only used when specific tie lines have to be identified.	May be used	Conditional

Series_Period			
timeInterval	A time interval of the same length as the Period.timeInterval	Used	Mandatory
resolution	Shall coincide with the scheduling step of the border. For RR following scheduling steps are supported: PT60M PT30M PT15M Otherwise PT15M.	Used	Mandatory

		Use	XSD requirements
Point			
position	Position within the time interval	Used	Mandatory
quantity	Quantity of limit with 0.1 MW precision	used	Mandatory

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Table 9 Capacity market document dependency table (submission of CZCLmax to CMM platform)

		Use	XSD requirements
Capacity_MarketDocument			
mRID	Unique identification of the Capacity Document	Used	Mandatory
revisionNumber	Initial transmission should normally equal “1”	Used	Mandatory
type	B31 = Additional Constraint document	Used	Mandatory
process.processType	A15 = Capacity determination A46 = Replacement reserve (RR) A47 = Manual frequency restoration reserve (mFRR) A51 = Automatic frequency restoration reserve (aFRR)	Used	Mandatory
sender_MarketParticipant.mRID	EIC of the Transmission System Operator	Used	Mandatory
sender_MarketParticipant.marketRole.type	A04 = System operator	Used	Mandatory
receiver_MarketParticipant.mRID	EIC of the CMM platform Operator	Used	Mandatory
receiver_MarketParticipant.marketRole.type	A36 = Capacity Coordinator	Used	Mandatory
createdDateTime	Date and time of document creation	Used	Mandatory
Period.timeInterval	Duration of delivery period (initially 1 hour) for RR interconnectors. . Duration of MTU/delivery period (15 minutes) otherwise	Used	Mandatory
domain.mRID	EIC of the CMM region	Used	Mandatory

TimeSeries			
mRID	The unique identification of the time series within the document	Used	Mandatory

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		Use	XSD requirements
businessType	C79 = Maximum available capacity	Used	Mandatory
product	8716867000016 = active power	Used	Mandatory
in_Domain.mRID	EIC identification of the area where the power is being put.	Used	Mandatory
out_Domain.mRID	EIC identification of the area where the power is coming from.	Used	Mandatory
measure_Unit.name	MAW = Megawatts	Used	Mandatory
auction.mRID	The identification of an auction specification	Not used	Conditional
auction.category	The category under which capacity is classified	Not used	Conditional
curveType	A01 = Sequential fixed size block.	Used	Mandatory
connectingLine_RegisteredResource.mRID	The identification of a set of lines that connect two areas together. This is only used when specific tie lines have to be identified.	May be used	Conditional

Series_Period			
timeInterval	A time interval of the same length as the Period.timeInterval	Used	Mandatory
resolution	Shall coincide with the scheduling step of the border. For RR following scheduling steps are supported: PT60M PT30M PT15M Otherwise PT15M.	Used	Mandatory

Point			
position	Position within the time interval	Used	Mandatory
quantity	Quantity of limit with 0.1 MW precision	used	Mandatory

Table 10 Capacity market document dependency table (CZCL to RR Platform and TSOs)

		Use	XSD requirements
Capacity_MarketDocument			
mRID	Unique identification of the Capacity Document	Used	Mandatory
revisionNumber	Initial transmission shall equal "1"	Used	Mandatory
type	A31 = Agreed capacity	Used	Mandatory
process.processType	A15 = Capacity determination	Used	Mandatory
sender_MarketParticipant.mRID	EIC of the CMM platform Operator	Used	Mandatory
sender_MarketParticipant.marketRole.type	A36 = Capacity Coordinator	Used	Mandatory
receiver_MarketParticipant.mRID	EIC of the balancing platform Operator or TSO	Used	Mandatory
receiver_MarketParticipant.marketRole.type	A35 = MOL responsible Operator A04 = System Operator	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 balancing region	Used	Mandatory
TimeSeries			
mRID	The unique identification of the time series within the document	Used	Mandatory
businessType	A26 = ATC	Used	Mandatory
product	8716867000016 = active power	Used	Mandatory
in_Domain.mRID	EIC identification of the scheduling area where the power is being put	Used	Mandatory
out_Domain.mRID	EIC identification of the scheduling area where the power is coming from	Used	Mandatory
measurement_Unit.name	MAW = Megawatts	Used	Mandatory
auction.mRID	The identification of an auction specification	Not used	Conditional

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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

308

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

309

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

310
311 **Table 11 Capacity market document dependency table (CZCL/ NPL to mFRR Platform and TSOs)**

		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	Mandatory
process.processType	A47 = Manual frequency restoration reserve	Used	Mandatory
sender_MarketParticipant.mRID	EIC of the CMM platform Operator	Used	Mandatory
sender_MarketParticipant.marketRole.type	A36 = Capacity Coordinator	Used	Mandatory
receiver_MarketParticipant.mRID	EIC of the balancing platform Operator or TSO	Used	Mandatory
receiver_MarketParticipant.marketRole.type	A35 = MOL responsible Operator	Used	Mandatory

		Use	XSD requirements
	A04 = System Operator		
createdDateTime	Date and time of document creation	Used	Mandatory
Period.timeInterval	The period of the affected MTU (15 minutes)	Used	Mandatory
domain.mRID	EIC of the balancing 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.	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

Series_Period			
timeInterval	A time interval of the same length as the Period.timeInterval	Used	Mandatory
resolution	PT15M	Used	Mandatory

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		Use	XSD requirements
Point			
position	Position within the time interval	Used	Mandatory
quantity	Quantity of limit with 1 MW precision.	Used	Mandatory
Reason (associated with time series)	Exactly one instance of Reason class may be included to indicate adjustment due to operational security.	May be used	Conditional
code	B47 = Operational security constraints	Used	
text	May be populated to provide additional explanation or justification in free text format	May be used	

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Table 12 Capacity market document dependency table (CZCL/ NPL for PICASSO / IGCC to TSOs)

		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	Mandatory
process.processType	A51 = Automatic frequency restoration reserve	Used	Mandatory
sender_MarketParticipant.mRID	EIC of the CMM platform Operator	Used	Mandatory
sender_MarketParticipant.marketRole.type	A36 = Capacity Coordinator	Used	Mandatory
receiver_MarketParticipant.mRID	EIC of the TSO	Used	Mandatory
receiver_MarketParticipant.marketRole.type	A04 = System Operator	Used	Mandatory
createdDateTime	Date and time of document creation	Used	Mandatory
Period.timeInterval	The MTU period(s) described (15 minutes)	Used	Mandatory

		Use	XSD requirements
domain.mRID	EIC of the balancing 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.	Used	Mandatory
out_Domain.mRID	EIC identification of the area where the power is coming from.	Used	Mandatory
measure_Unit.name	MAW = Megawatts	Used	Mandatory
auction.mRID	The identification of an auction specification	Not used	Conditional
auction.category	The category under which capacity is classified	Not used	Conditional
curveType	A03 = variable sized 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

Series_Period			
timeInterval	A time interval of the same length as the Period.timeInterval	Used	Mandatory
resolution	PT1M	Used	Mandatory

Point			
position	Position within the time interval	Used	Mandatory
quantity	Quantity of remaining capacity with 1 MW precision.	used	Mandatory

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Reason (associated with time series)	Exactly one instance of Reason class may be included to indicate adjustment due to operational security.	May be used	Conditional
code	B47 = Operational security constraints	Used	
text	May be populated to provide additional explanation or justification in free text format	May be used	

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319 4.7 Schedule_MarketDocument

320 The schedule document is used by the Balancing platforms to provide all the resulting cross-border flows to the CMM platform. This document is also
321 used by the TSOs to provide AAC values to the CMM platform.

322

323 **Table 13 Schedule market dependency table (submission of AAC to CMM platform)**

		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)	Used	Mandatory
process.processType	A15 = Capacity determination (used to send total aggregated AAC _{LT+DA+ID} or in specific case of gross technical profile for which ID AAC is submitted separately, then the value represents AAC _{LT+DA}) A49 = Intraday capacity determination (used to only send AAC _{ID} for interconnectors separately, which participate in gross technical profile)	Used	Mandatory
process.ClassificationType	A02 = Summary type	Used	Mandatory
sender_MarketParticipant.mRID	EIC of the TSO	Used	Mandatory
sender_MarketParticipant.marketRole.type	A04 = System Operator	Used	Mandatory
receiver_MarketParticipant.mRID	EIC of the CMM platform Operator:	Used	Mandatory
receiver_MarketParticipant.marketRole.type	A36 = Capacity Coordinator	Used	Mandatory

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createdDateTime	Date and time of document creation	Used	Mandatory
schedule_Time_Period.timeInterval	The duration of the delivery period (initially 1 hour) The MTU period described (15 minutes)	Used	Mandatory
domain.mRID	EIC of the CMM region	Used	Mandatory
subject_MarketParticipant.mRID	EIC of the TSO	Used	Mandatory
subject_MarketParticipant.marketRole.type	A04 = System Operator	Used	Mandatory
matching_Time_Period.timeInterval	Matching period for the schedule document	Not used	Conditional

324

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	A29 = Already allocated capacity (AAC)	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	Not used	Conditional
out_MarketParticipant.mRID	Identification of a market participant that is taking the power from the area	Not used	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	Conditional
measurement_Unit.name	MAW = Megawatts	Used	Mandatory
curveType	A01 = Sequential fixed size block	Used	Mandatory

325

Series_Period			
timeInterval	A time interval within the schedule_Time_Period.timeInterval	Used	Mandatory
resolution	PT60M PT30M PT15M	Used	Mandatory

Point			
position	Position within the time interval	Used	Mandatory
quantity	Quantity scheduled with 0.1 MW precision	Used	Mandatory

Reason (associated with time series and point)		Not used	Conditional
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Table 14 Schedule market dependency table (submission of RR XB Flows to CMM platform)

		Use	XSD requirements
Schedule_MarketDocument			
mRID	Unique identification of the Schedule Document	Used	Mandatory
revisionNumber	Initial transmission shall equal "1"	Used	Mandatory
type	A30 = Cross border schedule	Used	Mandatory
process.processType	A46 = Replacement reserve (RR)	Used	Mandatory
process.ClassificationType	A01 = Detail type	Used	Mandatory
sender_MarketParticipant.mRID	EIC of the balancing platform Operator: 10X1001C--00006N	Used	Mandatory

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sender_MarketParticipant.marketRole.type	A35 = MOL responsible Operator	Used	Mandatory
receiver_MarketParticipant.mRID	EIC of the CMM platform Operator	Used	Mandatory
receiver_MarketParticipant.marketRole.type	A36 = Capacity Coordinator	Used	Mandatory
createdDateTime	Date and time of document creation	Used	Mandatory
schedule_Time_Period.timeInterval	The duration of the delivery period (initially 1 hour)	Used	Mandatory
domain.mRID	EIC of the balancing region	Used	Mandatory
subject_MarketParticipant.mRID	EIC of the CMM platform Operator	Used	Mandatory
subject_MarketParticipant.markRole.type	A36 = Capacity Coordinator	Used	Mandatory
matching_Time_Period.timeInterval	Matching period for the schedule document	Not used	Conditional

328

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	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

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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	Not used	Conditional
in_MarketParticipant.mRID	identification of a market participant putting the power into the area	Not used	Conditional
connectingLine_RegisteredResource.mRID	Provided in case there are multiple interconnectors	Used	Conditional

329

330

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

331

Point			
position	Position within the time interval	Used	Mandatory
quantity	Quantity scheduled with 0.1 MW precision	Used	Mandatory

332

Reason (associated with time series and point)		Not used	Conditional
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335 **Table 15 Schedule market dependency table (submission of mFRR XB Flows to CMM platform)**

		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)	Used	Mandatory
process.processType	A47 = Manual frequency restoration reserve	Used	Mandatory
process.ClassificationType	A01 = Detail type	Used	Mandatory
sender_MarketParticipant.mRID	EIC of the balancing platform Operator: 10X1001C--00009H	Used	Mandatory
sender_MarketParticipant.marketRole.type	A35 = MOL responsible Operator	Used	Mandatory
receiver_MarketParticipant.mRID	EIC of the CMM platform Operator:	Used	Mandatory
receiver_MarketParticipant.marketRole.type	A36 = Capacity Coordinator	Used	Mandatory
createdDateTime	Date and time of document creation	Used	Mandatory
schedule_Time_Period.timeInterval	The MTU period(s) described (15 minutes for SA and 30 minutes for DA)	Used	Mandatory
domain.mRID	EIC of the balancing region	Used	Mandatory
subject_MarketParticipant.mRID	EIC of the CMM platform Operator	Used	Mandatory
subject_MarketParticipant.marketRole.type	A36 = Capacity Coordinator	Used	Mandatory
matching_Time_Period.timeInterval	Matching period for the schedule document	Not used	Conditional

336

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	Used	Mandatory

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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	Not used	Conditional
out_MarketParticipant.mRID	Identification of a market participant that is taking the power from the area	Not used	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	Conditional
measurement_Unit.name	MAW = Megawatts	Used	Mandatory
curveType	A03 = Variable sized Block	Used	Mandatory

337

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 with 1 MW precision	Used	Mandatory

Reason (associated with time series and point)		Not used	Conditional
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339 **Table 16 Schedule market dependency table (submission of PICASSO/IGCC XB Flows to CMM platform)**

		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)	Used	Mandatory
process.processType	A51 = Automatic frequency restoration reserve (aFRR)	Used	Mandatory
process.ClassificationType	A01 = Detail type	Used	Mandatory
sender_MarketParticipant.mRID	EIC of the balancing platform Operator: 10X1001C--00010W	Used	Mandatory
sender_MarketParticipant.marketRole.type	A35 = MOL responsible Operator	Used	Mandatory
receiver_MarketParticipant.mRID	EIC of the CMM platform Operator:	Used	Mandatory
receiver_MarketParticipant.marketRole.type	A36 = Capacity Coordinator	Used	Mandatory
createdDateTime	Date and time of document creation	Used	Mandatory
schedule_Time_Period.timeInterval	The MTU period described (15 minutes)	Used	Mandatory
domain.mRID	EIC of the balancing region	Used	Mandatory
subject_MarketParticipant.mRID	EIC of the CMM platform Operator	Used	Mandatory
subject_MarketParticipant.marketRole.type	A36 = Capacity Coordinator	Used	Mandatory
matching_Time_Period.timeInterval	Matching period for the schedule document	Not used	Conditional

340

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

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businessType	A45=Scheduled activated reserves	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	Not used	Conditional
out_MarketParticipant.mRID	Identification of a market participant that is taking the power from the area	Not used	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	Conditional
measurement_Unit.name	MAW = Megawatts	Used	Mandatory
curveType	A03 = Variable sized Block	Used	Mandatory

341

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 with 1 MW precision	Used	Mandatory

Reason (associated with time series and point)		Not used	Conditional
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343 **4.8 Unavailability_MarketDocument**

344 The CMM platform uses the unavailability document to inform all participating TSOs that the capacity management process itself has stopped or
 345 started, balancing platform disconnected or reconnected from/to the capacity management process, TSO is disconnected or reconnected from/to the
 346 capacity management process, a future date start/stop or disconnection/reconnection is recorded and/or any subsequent updates to the corresponding
 347 start and end times. Each document will describe a single instance of a disconnection, unavailability or failure. Hence the document shall contain
 348 exactly one time series. No Series_Period shall be included. Unavailability documents can be sent by mFRR to CMM and/or CMM to TSOs.

349 **Table 17 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	A15 = Capacity determination A46 = Replacement reserve A47 = Manual frequency restoration reserve A51 = Automatic frequency restoration reserves	Used	Mandatory
createdDateTime	Date and time of document creation	Used	Mandatory
sender_MarketParticipant.mRID	EIC of the Transmission System Operator or Balancing platform operator or CMM platform operator	Used	Mandatory
sender_MarketParticipant.marketRole.type	A35 = MOL responsible operator A36 = Capacity Coordinator A04 = System Operator	Used	Mandatory
receiver_MarketParticipant.mRID	EIC of the Transmission System Operator or CMM platform operator	Used	Mandatory
receiver_MarketParticipant.marketRole.type	A04 = System Operator A36 = Capacity Coordinator	Used	Mandatory
unavailability_Time_Period.timeInterval	The MTU period(s) affected by the unavailability.	Used	Mandatory
docStatus	A01 = Intermediate A02 = Final	Used	Conditional

	A09 = Cancelled		
	A09 is used when a future dated outage or disconnection is cancelled. A13 may be used to withdraw erroneously communicated outage		

TimeSeries			
mRID	identification of the time series	Used	Mandatory
businessType	C47 = Disconnection when sender_MarketParticipant.marketRole.type = A04 or A36 A83 = Auction cancellation when sender sender_MarketParticipant.marketRole.type = A35 (used in case no solution found or algorithm failure) A53 = Planned maintenance when sender_MarketParticipant.marketRole.type = A35 or A36 A54 = Unplanned outage when sender_MarketParticipant.marketRole.type = A35 or A36	Used	Mandatory
biddingZone_Domain.mRID	EIC code of control area when businessType = C47 EIC code of region when businessType = 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 MTU period as defined in unavailability_Time_Period.timeInterval	Used	Mandatory
start_DateAndOrTime.Time	start time of the first affected MTU period as defined in unavailability_Time_Period.timeInterval	Used	Mandatory
end_DateAndOrTime.Date	start date of the first MTU period no longer affected by unavailability_Time_Period.timeInterval	Used	Mandatory
end_DateAndOrTime.Time	start time of the first MTU period no longer affected by unavailability_Time_Period.timeInterval	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

351
352

Reason (associated with time series)			
code	B13 = Communication status currently inactive (when TSO or Balancing platform disconnects) B18 = Failure (in platform) B19 = Foreseen Maintenance B27 = Calculation process failed when sender_MarketParticipant.marketRole.type = A35 (algorithm failed) A99 = Auction cancelled when sender_MarketParticipant.marketRole.type = A35 (no solution found by algorithm)	Used	Mandatory
text	May be populated to provide additional explanation in free text format	May be used	Conditional

353 Exactly one Reason shall be associated with the time series.

354 Series_Period and consequently Point classes are not used.

355

357 5 Communication channels

358 The following protocols will be supported:

- 359 - File based exchange
 - 360 ○ Web services (IEC 62325-504)
 - 361 ○ MADES 2 (IEC 62325-503)
- 362 - Signal based exchange (Out of scope)
 - 363 ○ IEC 60870-5-101

364 As indicated in chapter **Error! Reference source not found.**, the CZCLs and profile limits will be communicated as a real-time signal to PICASSO
365 platform with intervals of 4 seconds. The signal at any given second will be linearly interpolated between the two surrounding points. During ramping,
366 each 4 second value will follow the gradient and not have the same value for a whole minute.