



European Network of
Transmission System Operators
for Electricity

ALLOCATION RESULT DOCUMENT UML MODEL AND SCHEMA

2021-04-20
APPROVED DOCUMENT
VERSION 1.1

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Revision History

Version	Release	Date	Comments
0	1	2018-03-12	First drafting of the document.
1	0	2018-05-08	Document approved by MC
1	1	2021-04-20	Title changed to Allocation Result document UML and schema instead of Allocation document. Changes in XSD v7.1: Reason is to align the market document name with the schema name. Cardinality of Bid_Original_MarketDocument association was changed from [1] to [0..1]. Approved by MC.

62

63 1 Objective

64 The purpose of this document is to provide the contextual and assembly UML models and the
65 schema of the AllocationResult_MarketDocument.

66 The schema of the AllocationResult_MarketDocument could be used in various business
67 processes.

68 It is not the purpose of this document to describe all the use cases, sequence diagrams,
69 business processes, etc. for which this schema is to be used.

70 This document shall only be referenced in an implementation guide of a specific business
71 process. The content of the business process implementation guide shall be as follows:

- 72 • Description of the business process;
- 73 • Use case of the business process;
- 74 • Sequence diagrams of the business process;
- 75 • List of the schema (XSD) to be used in the business process and versions of the
76 schema;
- 77 • For each schema, dependency tables providing the necessary information for the
78 generation of the XML instances, i.e. when the optional attributes are to be used, which
79 codes from which ENTSO-E codelist are to be used.

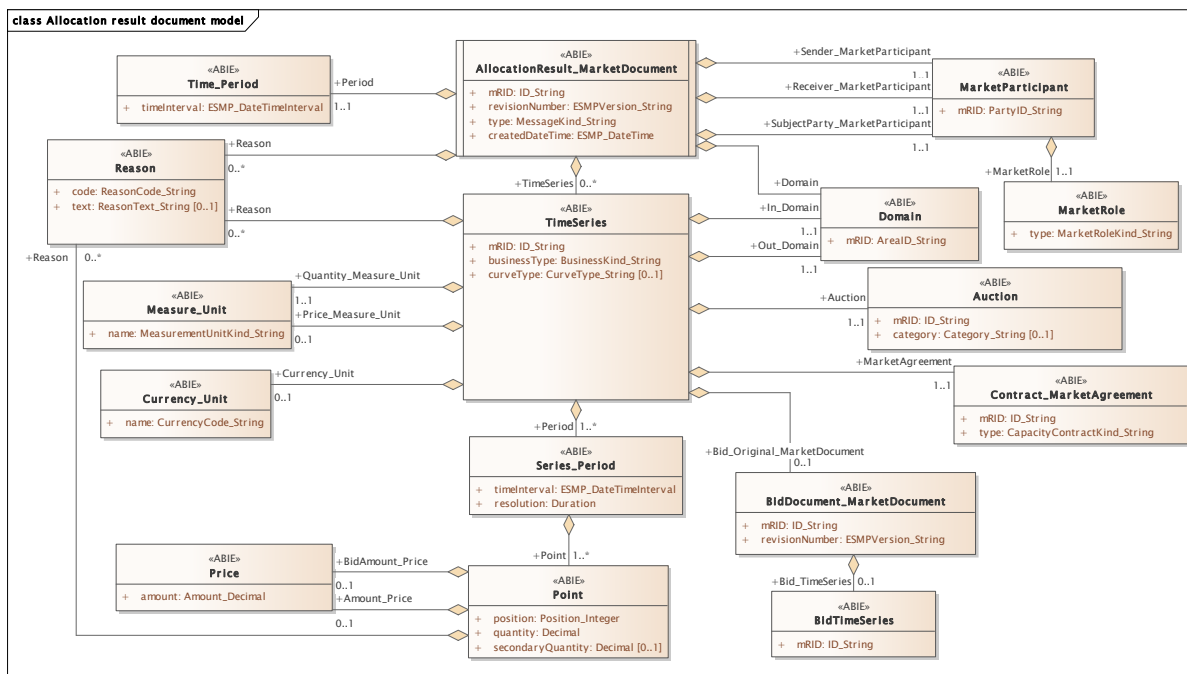
80

81 **2 AllocationResult_MarketDocument**

82 **2.1 Allocation result contextual model**

83 **2.1.1 Overview of the model**

84 Figure 1 shows the model.



85

86

87

Figure 1 - Allocation result contextual model

88

89 **2.1.2 IsBasedOn relationships from the European style market profile**

90 Table 1 shows the traceability dependency of the classes used in this package towards the
 91 upper level.

92

Table 1 - IsBasedOn dependency

Name	Complete IsBasedOn Path
AllocationResult_MarketDocument	TC57CIM::IEC62325::MarketManagement::MarketDocument
Auction	TC57CIM::IEC62325::MarketManagement::Auction
BidDocument_MarketDocument	TC57CIM::IEC62325::MarketManagement::MarketDocument
BidTimeSeries	TC57CIM::IEC62325::MarketManagement::BidTimeSeries
Contract_MarketAgreement	TC57CIM::IEC62325::MarketManagement::MarketAgreement
Currency_Unit	TC57CIM::IEC62325::MarketManagement::Unit
Domain	TC57CIM::IEC62325::MarketManagement::Domain
MarketParticipant	TC57CIM::IEC62325::MarketCommon::MarketParticipant
MarketRole	TC57CIM::IEC62325::MarketCommon::MarketRole
Measure_Unit	TC57CIM::IEC62325::MarketManagement::Unit
Point	TC57CIM::IEC62325::MarketManagement::Point
Price	TC57CIM::IEC62325::MarketManagement::Price
Reason	TC57CIM::IEC62325::MarketManagement::Reason
Series_Period	TC57CIM::IEC62325::MarketManagement::Period
Time_Period	TC57CIM::IEC62325::MarketManagement::Period
TimeSeries	TC57CIM::IEC62325::MarketManagement::TimeSeries

93

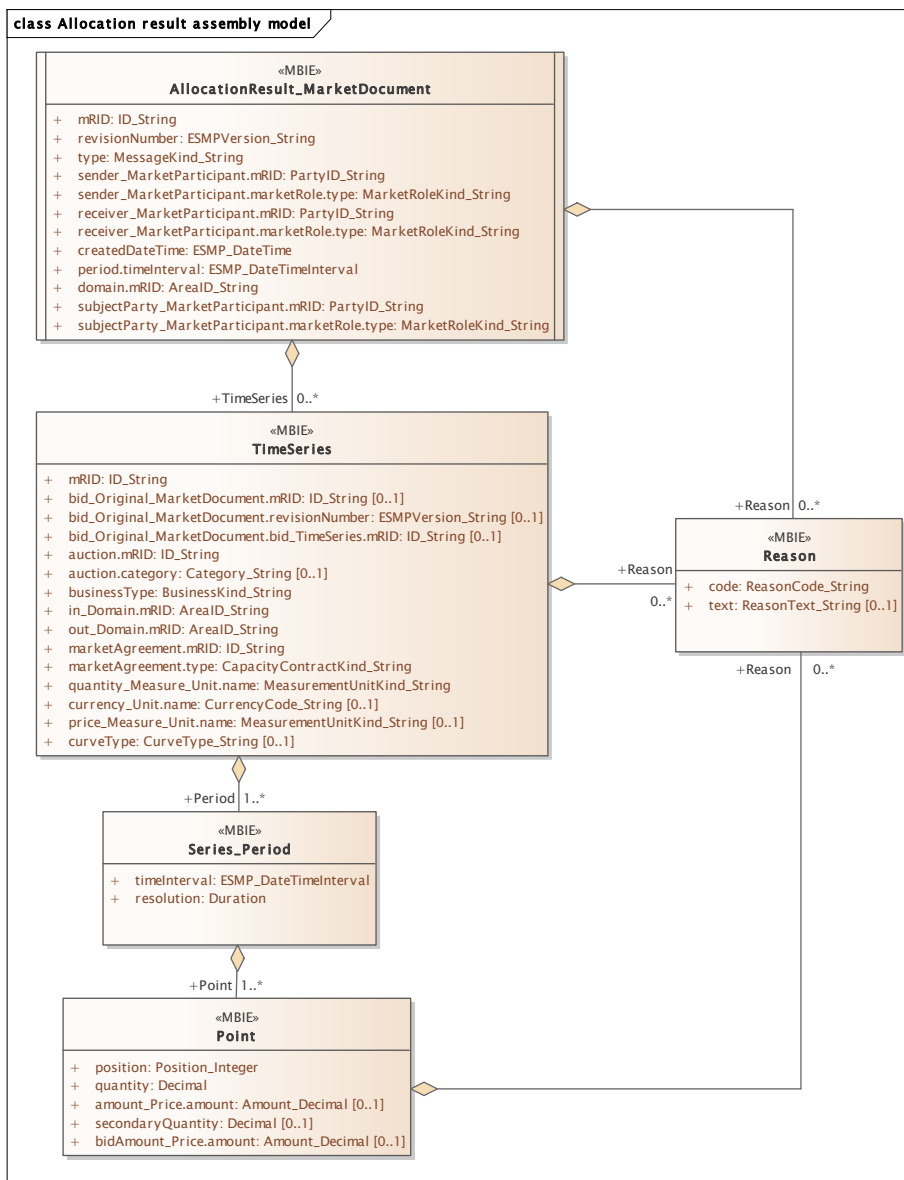
94

95

96 **2.2 Allocation result assembly model**

97 **2.2.1 Overview of the model**

98 Figure 2 shows the model.



99

100

Figure 2 - Allocation result assembly model

101

102

103 **2.2.2 IsBasedOn relationships from the European style market profile**

104 Table 2 shows the traceability dependency of the classes used in this package towards the
105 upper level.

106

Table 2 - IsBasedOn dependency

Name	Complete IsBasedOn Path
AllocationResult_MarketDocument	TC57CIM::IEC62325::MarketManagement::MarketDocument
Point	TC57CIM::IEC62325::MarketManagement::Point
Reason	TC57CIM::IEC62325::MarketManagement::Reason
Series_Period	TC57CIM::IEC62325::MarketManagement::Period
TimeSeries	TC57CIM::IEC62325::MarketManagement::TimeSeries

107

108 **2.2.3 Detailed Allocation result assembly model**

109 **2.2.3.1 AllocationResult_MarketDocument root class**

110 An electronic document containing the information necessary to satisfy the requirements of a
111 given business process.

112 There is only one allocation result document per sender and subject party for a given auction
113 identification and bid time interval.

114 In the case where the allocation result document contains all bids and resales that have been
115 validated for processing in the auction in the latest version of bid and resales documents
116 received, this shall include bids and resales that have not been satisfied. In this case the
117 quantity and price amount of the bids and resales that have not been satisfied shall be equal to
118 zero.

119 It is also possible for the allocation result document to contain only the bids that have been
120 allocated capacity transmission rights and resales that have sold capacity transmission rights.

121 A third possibility exists where only the aggregation of the bids that have capacity transmission
122 rights and the aggregation of transmission rights that have been sold are provided. In this case
123 the bid identification shall not be specified.

124 Only one of these possibilities is permitted in a given allocation result document.

125 Table 3 shows all attributes of AllocationResult_MarketDocument.

126

Table 3 - Attributes of Allocation result assembly model::AllocationResult_MarketDocument

127

Order	mult.	Attribute name / Attribute type	Description
0	[1..1]	mRID ID_String	The unique identification of the document being exchanged within a business process flow.
1	[1..1]	revisionNumber ESMPVersion_String	The identification of the version that distinguishes one evolution of a document from another.
2	[1..1]	type MessageKind_String	The coded type of a document. The document type describes the principal characteristic of the document.

Order	mult.	Attribute name / Attribute type	Description
3	[1..1]	sender_MarketParticipant.mRID PartyID_String	The identification of a party in the energy market. --- Document owner.
4	[1..1]	sender_MarketParticipant.marketRole.type MarketRoleKind_String	The identification of the role played by a market player. --- Document owner.
5	[1..1]	receiver_MarketParticipant.mRID PartyID_String	The identification of a party in the energy market. --- Document recipient.
6	[1..1]	receiver_MarketParticipant.marketRole.type MarketRoleKind_String	The identification of the role played by a market player. --- Document recipient.
7	[1..1]	createdDateTime ESMP_DateTime	The date and time of the creation of the document.
8	[1..1]	period.timeInterval ESMP_DateTimeInterval	The start and end date and time for a given interval. --- The beginning and ending date and time of the period covered by the document.
9	[1..1]	domain.mRID AreaID_String	The unique identification of the domain. --- The domain covered within the document.
10	[1..1]	subjectParty_MarketParticipant.mRID PartyID_String	The identification of a party in the energy market. --- The party for whom the bid is allocated.
11	[1..1]	subjectParty_MarketParticipant.marketRole.type MarketRoleKind_String	The identification of the role played by a market player. --- The party for whom the bid is allocated.

128

129 Table 4 shows all association ends of AllocationResult_MarketDocument with other classes.

130

131

Table 4 - Association ends of Allocation result assembly model::AllocationResult_MarketDocument with other classes

Order	mult.	Class name / Role	Description
12	[0..*]	TimeSeries TimeSeries	Association Based On: Allocation result contextual model::TimeSeries.TimeSeries[0..*] ----- Allocation result contextual model::AllocationResult_MarketDocument.[]
13	[0..*]	Reason Reason	Association Based On: Allocation result contextual model::Reason.Reason[0..*] ----- Allocation result contextual model::AllocationResult_MarketDocument.[]

132

133 2.2.3.2 Point

134 The identification of the values being addressed within a specific interval of time.

135 Table 5 shows all attributes of Point.

136

Table 5 - Attributes of Allocation result assembly model::Point

Order	mult.	Attribute name / Attribute type	Description
0	[1..1]	position Position_Integer	A sequential value representing the relative position within a given time interval.
1	[1..1]	quantity Decimal	The quantity that has been allocated or resold in the auction. The principal quantity identified for a point.
2	[0..1]	amount_Price.amount Amount_Decimal	A number of monetary units specified in a unit of currency. --- The price expressed for each unit of quantity allocated.
3	[0..1]	secondaryQuantity Decimal	The quantity that was in the original bid or resale document. The secondary quantity identified for a point.
4	[0..1]	bidAmount_Price.amount Amount_Decimal	A number of monetary units specified in a unit of currency. --- The original price expressed in the original bid or resale for each unit of quantity requested.

137

138 Table 6 shows all association ends of Point with other classes.

Table 6 - Association ends of Allocation result assembly model::Point with other classes

139

140

Order	mult.	Class name / Role	Description
5	[0..*]	Reason Reason	Association Based On: Allocation result contextual model::Reason.Reason[0..*] ----- Allocation result contextual model::Point.[]

141

142 2.2.3.3 Reason

143 The motivation of an act.

144 Table 7 shows all attributes of Reason.

Table 7 - Attributes of Allocation result assembly model::Reason

145

Order	mult.	Attribute name / Attribute type	Description
0	[1..1]	code ReasonCode_String	The motivation of an act in coded form.
1	[0..1]	text ReasonText_String	The textual explanation corresponding to the reason code.

146

147 2.2.3.4 Series_Period

148 The identification of the period of time corresponding to a given time interval and resolution.

149 Table 8 shows all attributes of Series_Period.

150 **Table 8 - Attributes of Allocation result assembly model::Series_Period**

Order	mult.	Attribute name / Attribute type	Description
0	[1..1]	timeInterval ESMP_DateTimeInterval	The start and end time of the period.
1	[1..1]	resolution Duration	The definition of the number of units of time that compose an individual step within a period.

151

152 Table 9 shows all association ends of Series_Period with other classes.

153 **Table 9 - Association ends of Allocation result assembly model::Series_Period with**
154 **other classes**

Order	mult.	Class name / Role	Description
2	[1..*]	Point Point	Association Based On: Allocation result contextual model::Point.Point[1..*] ----- Allocation result contextual model::Series_Period.[]

155

156 **2.2.3.5 TimeSeries**

157 A set of time-ordered quantities being exchanged in relation to a product.

158 For each time series in the document, the identification shall be a unique number assigned by
159 the auction office.

160 Table 10 shows all attributes of TimeSeries.

161 **Table 10 - Attributes of Allocation result assembly model::TimeSeries**

Order	mult.	Attribute name / Attribute type	Description
0	[1..1]	mRID ID_String	A unique identification of the time series.
1	[0..1]	bid_Original_MarketDocument.mRID ID_String	The unique identification of the document being exchanged within a business process flow. --- The identification of the document that contains the bids or resales referenced in the BidTimeSeries.
2	[0..1]	bid_Original_MarketDocument.revisionNumber ESMPVersion_String	The identification of the version that distinguishes one evolution of a document from another. --- The identification of the document that contains the bids or resales referenced in the BidTimeSeries.
3	[0..1]	bid_Original_MarketDocument.bid_TimeSeries.mRID ID_String	A unique identification of the time series. --- The identification of the document that contains the bids or resales referenced in the BidTimeSeries. --- The identification of the time series that was used in the original bid or resale. This is the unique number that is assigned by the bidder when he made his original bid or resale.

Order	mult.	Attribute name / Attribute type	Description
4	[1..1]	auction.mRID ID_String	The unique identification of the auction. --- The identification linking the allocation to a set of specifications created by the auction operator.
5	[0..1]	auction.category Category_String	The product category of an auction. --- The identification linking the allocation to a set of specifications created by the auction operator.
6	[1..1]	businessType BusinessKind_String	The identification of the nature of the time series.
7	[1..1]	in_Domain.mRID AreaID_String	The unique identification of the domain. --- The area where the energy is to be put.
8	[1..1]	out_Domain.mRID AreaID_String	The unique identification of the domain. --- The area where the energy is coming from.
9	[1..1]	marketAgreement.mRID ID_String	The unique identification of the agreement. --- The contract type defines the conditions under which the transmission capacity was allocated and handled, e.g.: daily auction, weekly auction, monthly auction, yearly auction, long term contract, etc. The significance of this type is dependent on the in area and out area specific coded working methods. The transmission capacity allocator responsible for the area in question auctions defines the contract type to be used.
10	[1..1]	marketAgreement.type CapacityContractKind_String	The specification of the kind of the agreement, e.g. long term, daily contract. --- The contract type defines the conditions under which the transmission capacity was allocated and handled, e.g.: daily auction, weekly auction, monthly auction, yearly auction, long term contract, etc. The significance of this type is dependent on the in area and out area specific coded working methods. The transmission capacity allocator responsible for the area in question auctions defines the contract type to be used.
11	[1..1]	quantity_Measure_Unit.name MeasurementUnitKind_String	The identification of the formal code for a measurement unit (UN/ECE Recommendation 20). --- The unit of measure that is applied to the quantities in which the time series is expressed, e.g. MAW.
12	[0..1]	currency_Unit.name CurrencyCode_String	The identification of the formal code for a currency (ISO 4217). --- The currency in which the monetary amount is expressed.
13	[0..1]	price_Measure_Unit.name MeasurementUnitKind_String	The identification of the formal code for a measurement unit (UN/ECE Recommendation 20). --- The unit of measure in which the price in the time series is expressed
14	[0..1]	curveType CurveType_String	The identification of the coded representation of the type of curve being described.

163 Table 11 shows all association ends of TimeSeries with other classes.

164 **Table 11 - Association ends of Allocation result assembly model::TimeSeries with other**
165 **classes**

Order	mult.	Class name / Role	Description
15	[1..*]	Series_Period Period	Association Based On: Allocation result contextual model::Series_Period.Period[1..*] ----- Allocation result contextual model::TimeSeries.[]
16	[0..*]	Reason Reason	Association Based On: Allocation result contextual model::Reason.Reason[0..*] ----- Allocation result contextual model::TimeSeries.[]

166

167 2.2.4 Datatypes

168 The list of datatypes used for the Allocation result assembly model is as follows:

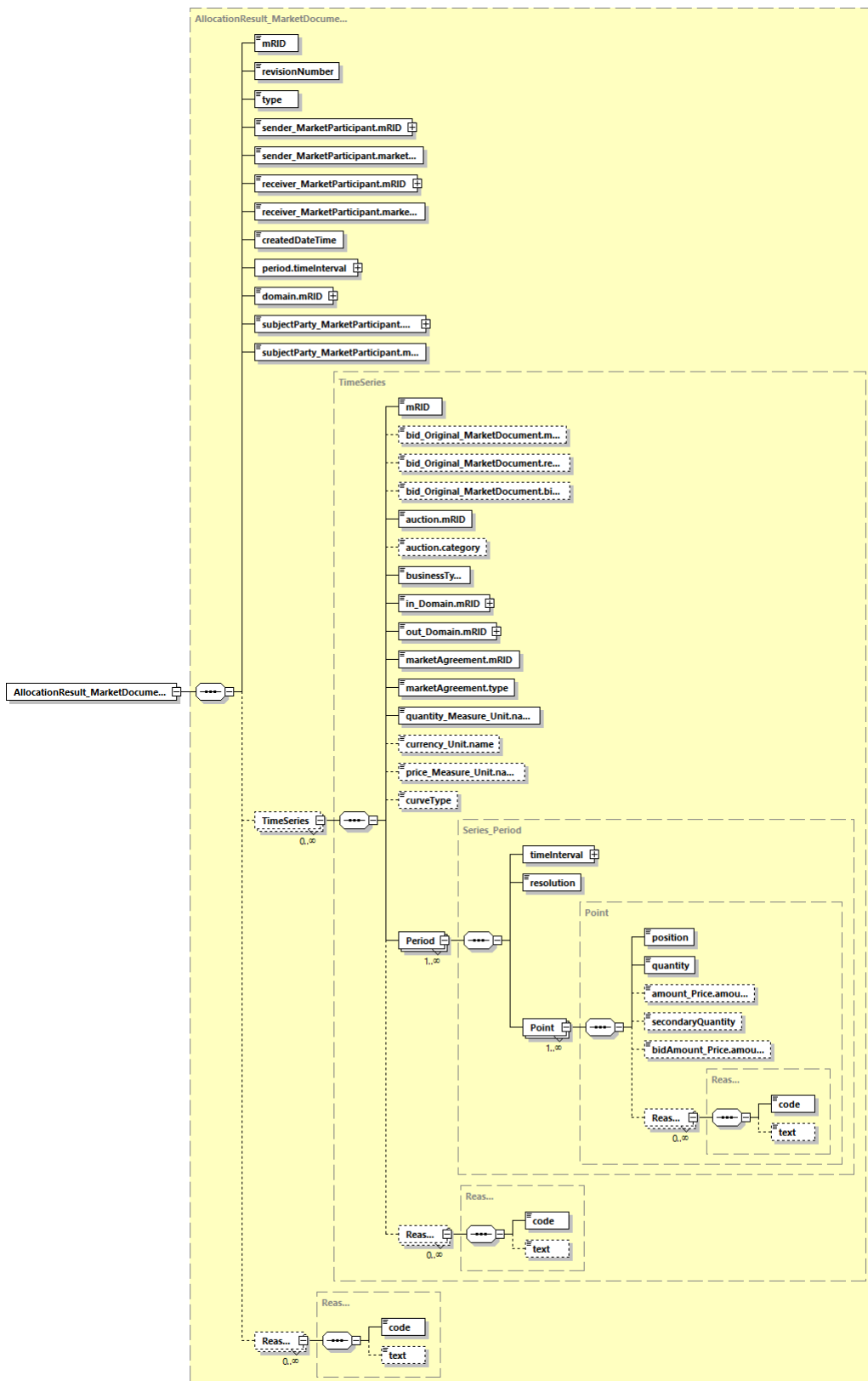
- 169 • ESMP_DateTimeInterval compound
- 170 • Amount_Decimal datatype
- 171 • AreaID_String datatype, codelist CodingSchemeTypeList
- 172 • BusinessKind_String datatype, codelist BusinessTypeList
- 173 • CapacityContractKind_String datatype, codelist ContractTypeList
- 174 • Category_String datatype, codelist CategoryTypeList
- 175 • CurrencyCode_String datatype, codelist CurrencyTypeList
- 176 • CurveType_String datatype, codelist CurveTypeList
- 177 • ESMP_DateTime datatype
- 178 • ESMPVersion_String datatype
- 179 • ID_String datatype
- 180 • MarketRoleKind_String datatype, codelist RoleTypeList
- 181 • MeasurementUnitKind_String datatype, codelist UnitOfMeasureTypeList
- 182 • MessageKind_String datatype, codelist MessageTypeList
- 183 • PartyID_String datatype, codelist CodingSchemeTypeList
- 184 • Position_Integer datatype
- 185 • ReasonCode_String datatype, codelist ReasonCodeTypeList
- 186 • ReasonText_String datatype
- 187 • YMDHM_DateTime datatype

188

189

190 2.2.5 AllocationResult_MarketDocument XML schema structure

191



192
 193

Figure 3 - AllocationResult_MarketDocument schema structure

194 2.2.6 AllocationResult_MarketDocument XML schema

195

196 The schema to be used to validate XML instances is to be identified by:

197 urn:iec62325.351:tc57wg16:451-3:allocationresultdocument:7:1

```
198 <?xml version="1.0" encoding="utf-8"?>
199 <xs:schema xmlns:ecl="urn:entsoe.eu:wgedi:codelists"
200 xmlns="urn:iec62325.351:tc57wg16:451-3:allocationresultdocument:7:1"
201 xmlns:sawsdl="http://www.w3.org/ns/sawsdl"
202 xmlns:cimp="http://www.iec.ch/cimprofile"
203 xmlns:xs="http://www.w3.org/2001/XMLSchema"
204 targetNamespace="urn:iec62325.351:tc57wg16:451-3:allocationresultdocument:7:1"
205 elementFormDefault="qualified" attributeFormDefault="unqualified">
206   <xs:import namespace="urn:entsoe.eu:wgedi:codelists" schemaLocation="urn-
207 entsoe-eu-wgedi-codelists.xsd"/>
208   <xs:element name="AllocationResult_MarketDocument"
209 type="AllocationResult_MarketDocument"/>
210   <xs:simpleType name="ID_String"
211 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
212     <xs:restriction base="xs:string">
213       <xs:maxLength value="60"/>
214     </xs:restriction>
215   </xs:simpleType>
216   <xs:simpleType name="ESMPVersion_String"
217 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
218     <xs:restriction base="xs:string">
219       <xs:pattern value="[1-9]([0-9]){0,2}"/>
220     </xs:restriction>
221   </xs:simpleType>
222   <xs:simpleType name="MessageKind_String"
223 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
224     <xs:restriction base="ecl:MessageTypeList"/>
225   </xs:simpleType>
226   <xs:simpleType name="PartyID_String-base"
227 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
228     <xs:restriction base="xs:string">
229       <xs:maxLength value="16"/>
230     </xs:restriction>
231   </xs:simpleType>
232   <xs:complexType name="PartyID_String"
233 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
234     <xs:simpleContent>
235       <xs:extension base="PartyID_String-base">
236         <xs:attribute name="codingScheme"
237 type="ecl:CodingSchemeTypeList" use="required"/>
238       </xs:extension>
239     </xs:simpleContent>
240   </xs:complexType>
241   <xs:simpleType name="MarketRoleKind_String"
242 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
243     <xs:restriction base="ecl:RoleTypeList"/>
244   </xs:simpleType>
245   <xs:simpleType name="ESMP_DateTime"
246 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#DateTime">
```



```

247         <xs:restriction base="xs:dateTime">
248             <xs:pattern value="((([0-9]{4})[\-](0[13578]|1[02])[\-](0[1-
249 9]|[12][0-9]|3[01])|([0-9]{4})[\-]((0[469])|(11))[\-](0[1-9]|12)[0-
250 9]|30))T((([01][0-9]|2[0-3]):[0-5][0-9]:[0-5][0-
251 9])Z)|(((13579)[26][02468][048]|13579)[01345789](0)[48]|13579)[01345789][2468][0
252 48]|02468)[048][02468][048]|02468)[1235679](0)[48]|02468)[1235679][2468][048]|([
253 0-9][0-9][13579][26])[\-](02)[\-](0[1-9]|1[0-9]|2[0-9])T((([01][0-9]|2[0-3]):[0-
254 5][0-9]:[0-5][0-
255 9])Z)|(((13579)[26][02468][1235679]|13579)[01345789](0)[01235679]|13579)[0134578
256 9][2468][1235679]|02468)[048][02468][1235679]|02468)[1235679](0)[01235679]|0246
257 8)[1235679][2468][1235679]|0-9][0-9][13579][01345789])[\-](02)[\-](0[1-9]|1[0-
258 9]|2[0-8])T((([01][0-9]|2[0-3]):[0-5][0-9]:[0-5][0-9])Z)"/>
259         </xs:restriction>
260     </xs:simpleType>
261     <xs:simpleType name="AreaID_String-base"
262 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
263         <xs:restriction base="xs:string">
264             <xs:maxLength value="18"/>
265         </xs:restriction>
266     </xs:simpleType>
267     <xs:complexType name="AreaID_String"
268 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
269         <xs:simpleContent>
270             <xs:extension base="AreaID_String-base">
271                 <xs:attribute name="codingScheme"
272 type="ecl:CodingSchemeTypeList" use="required"/>
273             </xs:extension>
274         </xs:simpleContent>
275     </xs:complexType>
276     <xs:simpleType name="YMDHM_DateTime"
277 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#DateTime">
278         <xs:restriction base="xs:string">
279             <xs:pattern value="((([0-9]{4})[\-](0[13578]|1[02])[\-](0[1-
280 9]|[12][0-9]|3[01])|([0-9]{4})[\-]((0[469])|(11))[\-](0[1-9]|12)[0-
281 9]|30))T((([01][0-9]|2[0-3]):[0-5][0-
282 9])Z)|(((13579)[26][02468][048]|13579)[01345789](0)[48]|13579)[01345789][2468][0
283 48]|02468)[048][02468][048]|02468)[1235679](0)[48]|02468)[1235679][2468][048]|([
284 0-9][0-9][13579][26])[\-](02)[\-](0[1-9]|1[0-9]|2[0-9])T((([01][0-9]|2[0-3]):[0-
285 5][0-
286 9])Z)|(((13579)[26][02468][1235679]|13579)[01345789](0)[01235679]|13579)[0134578
287 9][2468][1235679]|02468)[048][02468][1235679]|02468)[1235679](0)[01235679]|0246
288 8)[1235679][2468][1235679]|0-9][0-9][13579][01345789])[\-](02)[\-](0[1-9]|1[0-
289 9]|2[0-8])T((([01][0-9]|2[0-3]):[0-5][0-9]:[0-5][0-9])Z)"/>
290         </xs:restriction>
291     </xs:simpleType>
292     <xs:complexType name="ESMP_DateTimeInterval"
293 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#DateTimeInterval">
294         <xs:sequence>
295             <xs:element name="start" type="YMDHM_DateTime" minOccurs="1"
296 maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
297 cim16#DateTimeInterval.start"/>
298             <xs:element name="end" type="YMDHM_DateTime" minOccurs="1"
299 maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
300 cim16#DateTimeInterval.end"/>
301         </xs:sequence>
302     </xs:complexType>

```

```

303     <xs:complexType name="AllocationResult_MarketDocument"
304 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#MarketDocument">
305     <xs:sequence>
306         <xs:element name="mRID" type="ID_String" minOccurs="1"
307 maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
308 cim16#IdentifiedObject.mRID"/>
309         <xs:element name="revisionNumber" type="ESMPVersion_String"
310 minOccurs="1" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-
311 schema-cim16#Document.revisionNumber"/>
312         <xs:element name="type" type="MessageKind_String" minOccurs="1"
313 maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
314 cim16#Document.type"/>
315         <xs:element name="sender_MarketParticipant.mRID"
316 type="PartyID_String" minOccurs="1" maxOccurs="1"
317 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
318 cim16#IdentifiedObject.mRID"/>
319         <xs:element name="sender_MarketParticipant.marketRole.type"
320 type="MarketRoleKind_String" minOccurs="1" maxOccurs="1"
321 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#MarketRole.type"/>
322         <xs:element name="receiver_MarketParticipant.mRID"
323 type="PartyID_String" minOccurs="1" maxOccurs="1"
324 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
325 cim16#IdentifiedObject.mRID"/>
326         <xs:element name="receiver_MarketParticipant.marketRole.type"
327 type="MarketRoleKind_String" minOccurs="1" maxOccurs="1"
328 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#MarketRole.type"/>
329         <xs:element name="createdDateTime" type="ESMP_DateTime"
330 minOccurs="1" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-
331 schema-cim16#Document.createdDateTime"/>
332         <xs:element name="period.timeInterval"
333 type="ESMP_DateTimeInterval" minOccurs="1" maxOccurs="1"
334 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
335 cim16#Period.timeInterval"/>
336         <xs:element name="domain.mRID" type="AreaID_String"
337 minOccurs="1" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-
338 schema-cim16#IdentifiedObject.mRID"/>
339         <xs:element name="subjectParty_MarketParticipant.mRID"
340 type="PartyID_String" minOccurs="1" maxOccurs="1"
341 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
342 cim16#IdentifiedObject.mRID"/>
343         <xs:element
344 name="subjectParty_MarketParticipant.marketRole.type" type="MarketRoleKind_String"
345 minOccurs="1" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-
346 schema-cim16#MarketRole.type"/>
347         <xs:element name="TimeSeries" type="TimeSeries" minOccurs="0"
348 maxOccurs="unbounded" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
349 cim16#MarketDocument.TimeSeries"/>
350         <xs:element name="Reason" type="Reason" minOccurs="0"
351 maxOccurs="unbounded" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
352 cim16#MarketDocument.Reason"/>
353     </xs:sequence>
354 </xs:complexType>
355 <xs:simpleType name="Position_Integer"
356 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#Integer">
357     <xs:restriction base="xs:integer">
358         <xs:maxInclusive value="999999"/>

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359         <xs:minInclusive value="1"/>
360     </xs:restriction>
361 </xs:simpleType>
362 <xs:simpleType name="Amount_Decimal"
363 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#Decimal">
364     <xs:restriction base="xs:decimal">
365         <xs:totalDigits value="17"/>
366     </xs:restriction>
367 </xs:simpleType>
368 <xs:complexType name="Point"
369 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#Point">
370     <xs:sequence>
371         <xs:element name="position" type="Position_Integer"
372 minOccurs="1" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-
373 schema-cim16#Point.position"/>
374         <xs:element name="quantity" type="xs:decimal" minOccurs="1"
375 maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
376 cim16#Point.quantity"/>
377         <xs:element name="amount_Price.amount" type="Amount_Decimal"
378 minOccurs="0" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-
379 schema-cim16#Price.amount"/>
380         <xs:element name="secondaryQuantity" type="xs:decimal"
381 minOccurs="0" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-
382 schema-cim16#Point.secondaryQuantity"/>
383         <xs:element name="bidAmount_Price.amount" type="Amount_Decimal"
384 minOccurs="0" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-
385 schema-cim16#Price.amount"/>
386         <xs:element name="Reason" type="Reason" minOccurs="0"
387 maxOccurs="unbounded" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
388 cim16#Point.Reason"/>
389     </xs:sequence>
390 </xs:complexType>
391 <xs:simpleType name="ReasonCode_String"
392 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
393     <xs:restriction base="ecl:ReasonCodeTypeList"/>
394 </xs:simpleType>
395 <xs:simpleType name="ReasonText_String"
396 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
397     <xs:restriction base="xs:string">
398         <xs:maxLength value="512"/>
399     </xs:restriction>
400 </xs:simpleType>
401 <xs:complexType name="Reason"
402 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#Reason">
403     <xs:sequence>
404         <xs:element name="code" type="ReasonCode_String" minOccurs="1"
405 maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
406 cim16#Reason.code"/>
407         <xs:element name="text" type="ReasonText_String" minOccurs="0"
408 maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
409 cim16#Reason.text"/>
410     </xs:sequence>
411 </xs:complexType>
412 <xs:complexType name="Series_Period"
413 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#Period">
414     <xs:sequence>

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415         <xs:element name="timeInterval" type="ESMP_DateTimeInterval"  
416 minOccurs="1" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-  
417 schema-cim16#Period.timeInterval"/>  
418         <xs:element name="resolution" type="xs:duration" minOccurs="1"  
419 maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-  
420 cim16#Period.resolution"/>  
421         <xs:element name="Point" type="Point" minOccurs="1"  
422 maxOccurs="unbounded" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-  
423 cim16#Period.Point"/>  
424     </xs:sequence>  
425 </xs:complexType>  
426 <xs:simpleType name="Category_String"  
427 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">  
428     <xs:restriction base="ecl:CategoryTypeList"/>  
429 </xs:simpleType>  
430 <xs:simpleType name="BusinessKind_String"  
431 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">  
432     <xs:restriction base="ecl:BusinessTypeList"/>  
433 </xs:simpleType>  
434 <xs:simpleType name="CapacityContractKind_String"  
435 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">  
436     <xs:restriction base="ecl:ContractTypeList"/>  
437 </xs:simpleType>  
438 <xs:simpleType name="MeasurementUnitKind_String"  
439 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">  
440     <xs:restriction base="ecl:UnitOfMeasureTypeList"/>  
441 </xs:simpleType>  
442 <xs:simpleType name="CurrencyCode_String"  
443 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">  
444     <xs:restriction base="ecl:CurrencyTypeList"/>  
445 </xs:simpleType>  
446 <xs:simpleType name="CurveType_String"  
447 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">  
448     <xs:restriction base="ecl:CurveTypeList"/>  
449 </xs:simpleType>  
450 <xs:complexType name="TimeSeries"  
451 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#TimeSeries">  
452     <xs:sequence>  
453         <xs:element name="mRID" type="ID_String" minOccurs="1"  
454 maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-  
455 cim16#IdentifiedObject.mRID"/>  
456         <xs:element name="bid_Original_MarketDocument.mRID"  
457 type="ID_String" minOccurs="0" maxOccurs="1"  
458 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-  
459 cim16#IdentifiedObject.mRID"/>  
460         <xs:element name="bid_Original_MarketDocument.revisionNumber"  
461 type="ESMPVersion_String" minOccurs="0" maxOccurs="1"  
462 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-  
463 cim16#Document.revisionNumber"/>  
464     </xs:element>  
465     name="bid_Original_MarketDocument.bid_TimeSeries.mRID" type="ID_String"  
466     minOccurs="0" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-  
467     schema-cim16#IdentifiedObject.mRID"/>  
468     <xs:element name="auction.mRID" type="ID_String" minOccurs="1"  
469     maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-  
470     cim16#IdentifiedObject.mRID"/>
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471         <xs:element name="auction.category" type="Category_String"
472 minOccurs="0" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-
473 schema-cim16#Auction.category"/>
474         <xs:element name="businessType" type="BusinessKind_String"
475 minOccurs="1" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-
476 schema-cim16#TimeSeries.businessType"/>
477         <xs:element name="in_Domain.mRID" type="AreaID_String"
478 minOccurs="1" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-
479 schema-cim16#IdentifiedObject.mRID"/>
480         <xs:element name="out_Domain.mRID" type="AreaID_String"
481 minOccurs="1" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-
482 schema-cim16#IdentifiedObject.mRID"/>
483         <xs:element name="marketAgreement.mRID" type="ID_String"
484 minOccurs="1" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-
485 schema-cim16#IdentifiedObject.mRID"/>
486         <xs:element name="marketAgreement.type"
487 type="CapacityContractKind_String" minOccurs="1" maxOccurs="1"
488 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#Document.type"/>
489         <xs:element name="quantity_Measure_Unit.name"
490 type="MeasurementUnitKind_String" minOccurs="1" maxOccurs="1"
491 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#Unit.name"/>
492         <xs:element name="currency_Unit.name"
493 type="CurrencyCode_String" minOccurs="0" maxOccurs="1"
494 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#Unit.name"/>
495         <xs:element name="price_Measure_Unit.name"
496 type="MeasurementUnitKind_String" minOccurs="0" maxOccurs="1"
497 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#Unit.name"/>
498         <xs:element name="curveType" type="CurveType_String"
499 minOccurs="0" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-
500 schema-cim16#TimeSeries.curveType"/>
501         <xs:element name="Period" type="Series_Period" minOccurs="1"
502 maxOccurs="unbounded" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
503 cim16#TimeSeries.Period"/>
504         <xs:element name="Reason" type="Reason" minOccurs="0"
505 maxOccurs="unbounded" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
506 cim16#TimeSeries.Reason"/>
507     </xs:sequence>
508 </xs:complexType>
509 </xs:schema>
510
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