



European Network of  
Transmission System Operators  
for Electricity

---

# ENTSO-E

## Capacity allocation configuration

## IMPLEMENTATION GUIDE

---

2015-03-05

---

DOCUMENT FOR APPROVAL  
VERSION 1.0

## Copyright notice:

### Copyright © ENTSO-E. All Rights Reserved.

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

This document and the information contained herein is provided on an "as is" basis.

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

**This document is maintained by the ENTSO-E WG EDI. Comments or remarks are to be provided at [EDI.Library@entsoe.eu](mailto:EDI.Library@entsoe.eu)**

### NOTE CONCERNING WORDING USED IN THIS DOCUMENT

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

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

40

## Revision History

Version	Release	Date	Paragraph	Comments
0	0	2015-02-25		Draft release
1	0	2015-03-05		Initial release

## CONTENTS

41		
42	Copyright notice:.....	2
43	Revision History.....	3
44	CONTENTS .....	4
45	INTRODUCTION.....	6
46	1 Scope .....	6
47	2 Normative references .....	6
48	3 The transmission capacity allocation configuration business process.....	6
49	3.1 Overall business context .....	6
50	3.2 Use case.....	6
51	3.3 Sequence diagram .....	7
52	4 Business rules for the capacity allocation configuration process .....	8
53	4.1 General rules .....	8
54	4.2 Cancellation of allocation instance .....	8
55	4.3 Dependencies governing the Document .....	8
56	5 Contextual and assembly models .....	11
57	5.1 Capacity allocation configuration contextual model .....	11
58	5.1.1 Overview of the model .....	11
59	5.1.2 IsBasedOn relationships from the European style market	
60	profile .....	12
61	5.2 Capacity allocation configuration assembly model.....	13
62	5.2.1 Overview of the model .....	13
63	5.2.1 IsBasedOn relationships from the European style market	
64	profile .....	13
65	5.2.2 Detailed Capacity allocation configuration assembly model .....	14
66	5.2.3 Datatypes .....	18
67	6 XML schema.....	19
68	6.1 Schema structure .....	19
69	6.2 Schema description .....	21
70		
71	<b>List of figures</b>	
72	Figure 1 – Use case.....	7
73	Figure 2 – Sequence diagram .....	8
74	Figure 3 – Capacity allocation configuration contextual model .....	11
75	Figure 4 – Capacity allocation configuration assembly model.....	13
76	Figure 5 – Capacity allocation configuration document schema – 1/3.....	19
77	Figure 6 – Capacity allocation configuration document schema – 2/3.....	21
78	Figure 7 – Capacity allocation configuration document schema – 3/3.....	21
79		
80	<b>List of tables</b>	
81	Table 1 – Mandatory attributes of the document.....	8
82	Table 2 – Dependent attributes .....	9
83	Table 3 – IsBasedOn dependency .....	12
84	Table 4 – IsBasedOn dependency .....	14

85	Table 5 – Attributes of Capacity allocation configuration assembly	
86	model::CapacityAllocationConfiguration_MarketDocument .....	14
87	Table 6 – Association ends of Capacity allocation configuration assembly	
88	model::CapacityAllocationConfiguration_MarketDocument with other classes .....	15
89	Table 7 – Attributes of Capacity allocation configuration assembly	
90	model::Allocation_TimeSeries .....	15
91	Table 8 – Association ends of Capacity allocation configuration assembly	
92	model::Allocation_TimeSeries with other classes .....	17
93	Table 9 – Attributes of Capacity allocation configuration assembly model::Point .....	17
94		

## INTRODUCTION

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

### 1 Scope

The objective of this implementation guide is to make it possible for software vendors to develop an IT application to enable the submission to the ENTSO-E central transparency platform of documents describing instances of transmission capacity allocations and in particular the handling of the transmission capacity allocation calendar of the platform.

The implementation guide is one of the building blocks for using UML (Unified Modelling Language) based techniques in defining processes and documents for interchange between the involved actors.

### 2 Normative references

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

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

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

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

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

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

### 3 The transmission capacity allocation configuration business process

#### 3.1 Overall business context

The capacity allocation processes have to be configured on the ENTSO-E central transparency platform before any data describing the offered or allocated capacities are submitted. Data providers have a choice between manually configuring the capacity allocation processes or submitting a capacity allocation configuration document.

The ENTSO-E central transparency platform will use the allocation configuration to validate data submitted under articles 11.1(a), 12.1.a, 12.1.c, 12.1.e and 12.1.h of the EU Transparency Regulation. The allocation configuration will also be used to monitor compliance with the submission deadlines outlined in articles 11.2, 12.2.a, 12.2.c and 12.2.g of the EU Transparency Regulation.

#### 3.2 Use case

The provision of capacity allocation configuration is relatively straightforward (see Figure 1) and is basically broken down into two alternative sub use cases. The two alternative sub use cases are as follows:

- a) Provide explicit capacity allocation configuration
- b) Provide implicit capacity allocation configuration

138 The capacity allocation configuration will not be published by the ENTSO-E central  
139 transparency platform. Rather, it is intended to validate submitted data and to monitor  
140 compliance with submission deadlines.

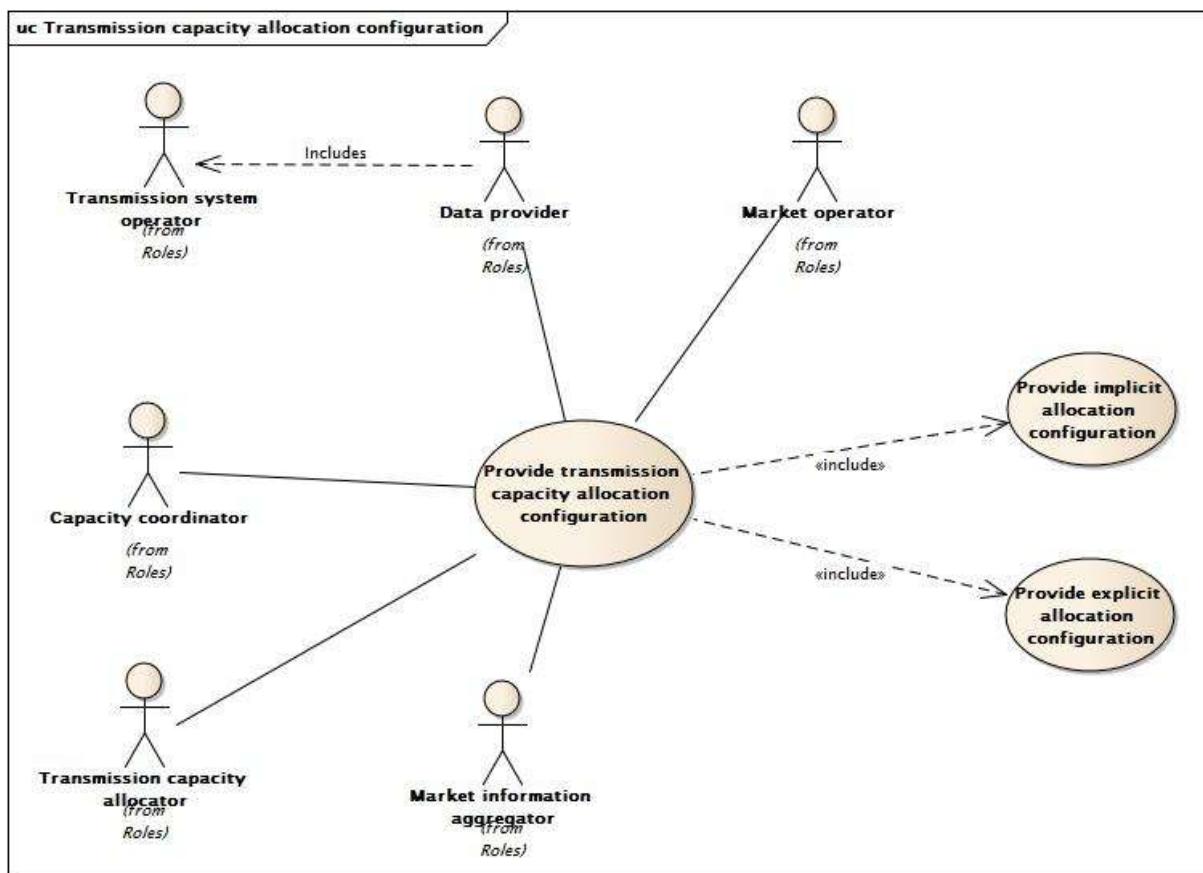
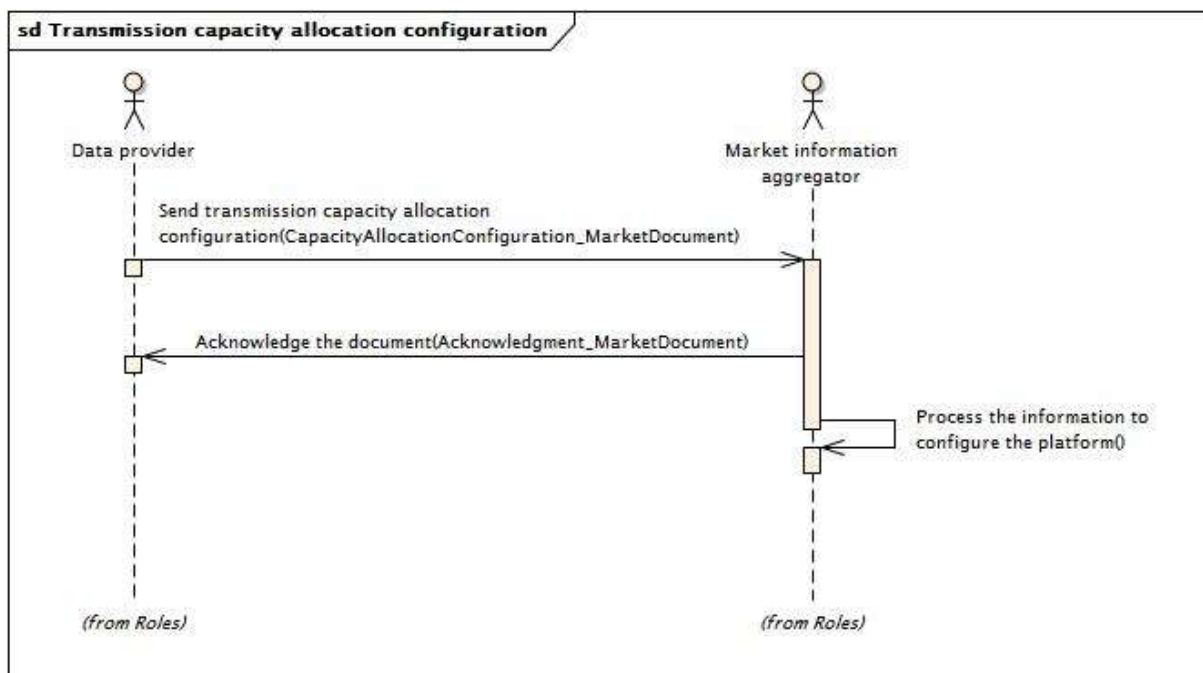


Figure 1 – Use case

### 3.3 Sequence diagram

The sequence diagram is provided in Figure 2.



**Figure 2 – Sequence diagram**

## 4 Business rules for the capacity allocation configuration process

### 4.1 General rules

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

### 4.2 Cancellation of allocation instance

The cancellation of an allocation instance, i.e. the couple (allocation instance and delivery period), is carried out as an update with the attribute cancelled set to "A01" (yes).

### 4.3 Dependencies governing the Document

The XML document described in this implementation guide is to be used for the upload of information to the ENTSO-E central platform. It is currently not foreseen that the document would be used to download information.

The attributes described in Table 1 are mandatory:

**Table 1 – Mandatory attributes of the document**

Attribute name	Set of value
mRID	Mandatory
type	A51 = Capacity auction specification document
process.processType	A07 = Capacity allocation
sender_MarketParticipant.mRID	Mandatory
sender_MarketParticipant.marketRole.type	Mandatory
receiver_MarketParticipant.mRID	The EIC code is 10X1001A1001A450 for the EMFIP platform.
receiver_MarketParticipant.marketRole.type	The role is A32, market information aggregator.
createdDateTime	Mandatory as YYYY-MM-DDTHH:MM:SSZ



162 The attributes in table 2 are dependent:

163 **Table 2 – Dependent attributes**

Attribute		Explicit allocation	Implicit allocation
Allocation_TimeSeries	Name	Mandatory 20 character length	
	cancelledTS	May be used A01 = Yes (Allocation Instance should be cancelled) A02 = No (Allocation Instance is active and valid). A02 is the default value when element is not provided.	
	description	May be used 100 character length	
	auction.type	A02 = Explicit	A01 = Implicit
	subType_Auction.type	May be used A06 = shadow auction	Not used
	auction.allocationMode	May be used A01 = Auction (with pro rata as secondary criterion) A02 = Auction (with first come – first served as secondary criterion) A03 = First come – first served A04 = Pro rata A05 = Continuous	
	marketAgreement.type	Mandatory A01 = Daily. A02 = Weekly A03 = Monthly A04 = Yearly A06 = Long term A07 = Intraday A08 = Quarter Yearly A09 = Semestrial	
	timeZone_AttributeInstanceComponent.attribute	Mandatory WET – Western European Time CET – Central European Time EET – Eastern European Time UTC – Coordinated Universal Time	
	delivery_Period.timeInterval	Mandatory	
	allocation_Period.timeInterval	Mandatory	
	bidding_Period.timeInterval	May be used	
	offeredCapacityProvider_MarketParticipant.mRID	May be used Article 11.1	
	useOfCapacityProvider_MarketParticipant.mRID	May be used Article 12.1(a)	Not used
	alreadyAllocatedCapacityProvider_MarketParticipant.mRID	May be used Article 12.1(c)	Not used
	auctionRevenueProvider_MarketParticipant.mRID	May be used Article 12.1(a)	Not used

Attribute		Explicit allocation	Implicit allocation
	capacityThirdCountriesProvider_MarketParticipant.mRID	May be used Article 12.1(h)	Not used
	congestionIncome_MarketParticipant.mRID	Not used	May be used Article 12.1(e)
	conductingParty_MarketParticipant.mRID	May be used	
Point	position	Mandatory	
	timeSeries.name	Mandatory	
	timeSeries.in_Domain.mRID	Mandatory	
	timeSeries.out_Domain.mRID	Mandatory	
	timeSeries.currency_Unit.name	Mandatory	
	timeSeries.auction.category	Mandatory A01 = Base A02 = Peak A03 = Offpeak A04 = Hourly	Not used

164

## 165 5 Contextual and assembly models

### 166 5.1 Capacity allocation configuration contextual model

#### 167 5.1.1 Overview of the model

168 Figure 3 shows the model.

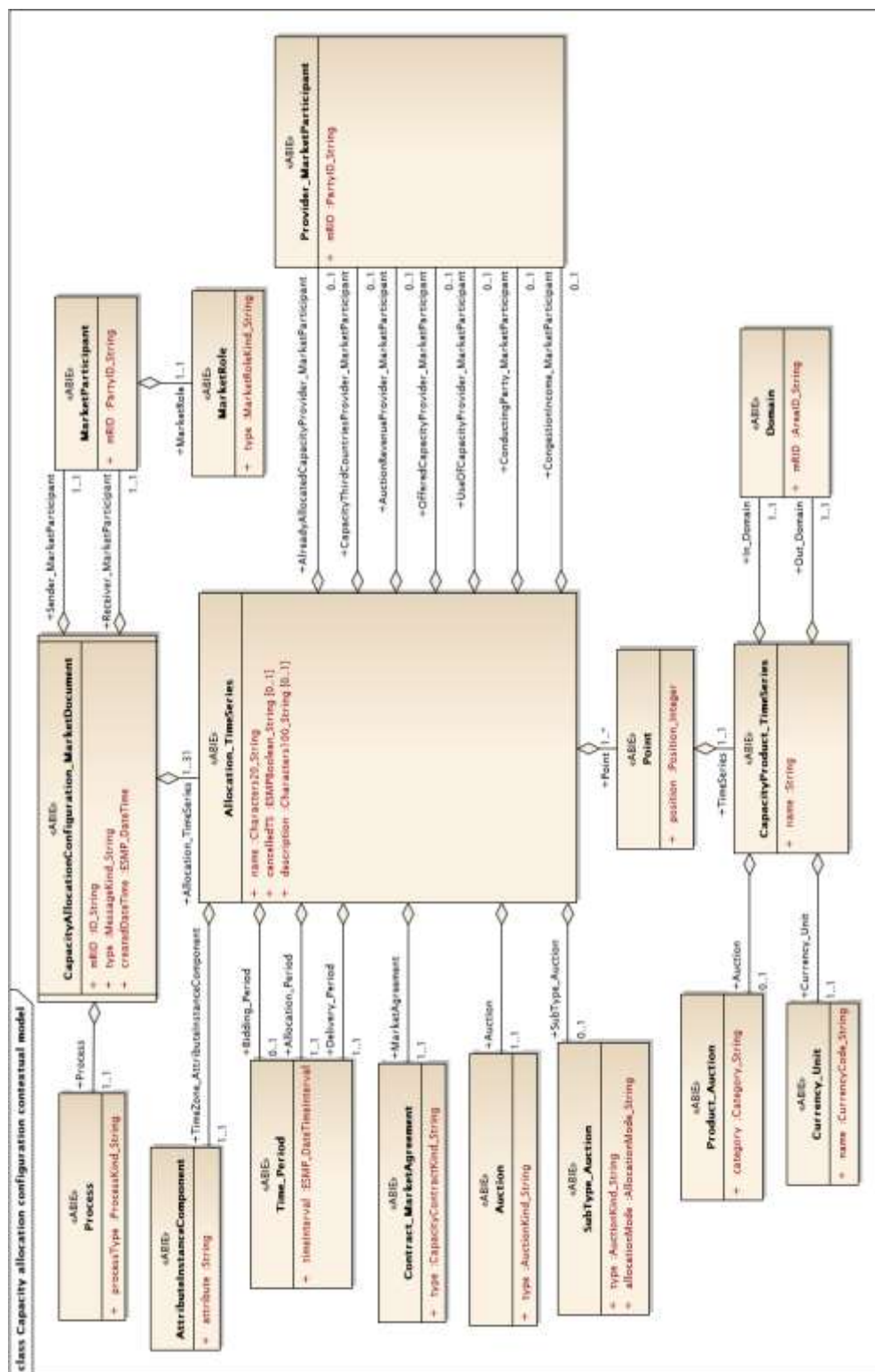


Figure 3 – Capacity allocation configuration contextual model

171 **5.1.2 IsBasedOn relationships from the European style market profile**

172 Table 3 shows the traceability dependency of the classes used in this package towards the  
173 upper level.

174 **Table 3 – IsBasedOn dependency**

Name	Complete IsBasedOn Path
Allocation_TimeSeries	TC57CIM::IEC62325::MarketManagement::TimeSeries
AttributeInstanceComponent	TC57CIM::IEC62325::MarketManagement::AttributeInstanceComponent
Auction	TC57CIM::IEC62325::MarketManagement::Auction
CapacityAllocationConfiguration_MarketDocument	TC57CIM::IEC62325::MarketManagement::MarketDocument
CapacityProduct_TimeSeries	TC57CIM::IEC62325::MarketManagement::TimeSeries
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
Point	TC57CIM::IEC62325::MarketManagement::Point
Process	TC57CIM::IEC62325::MarketManagement::Process
Product_Auction	TC57CIM::IEC62325::MarketManagement::Auction
Provider_MarketParticipant	TC57CIM::IEC62325::MarketCommon::MarketParticipant
SubType_Auction	TC57CIM::IEC62325::MarketManagement::Auction
Time_Period	TC57CIM::IEC62325::MarketManagement::Period

175

## 5.2 Capacity allocation configuration assembly model

### 5.2.1 Overview of the model

Figure 4 shows the model.

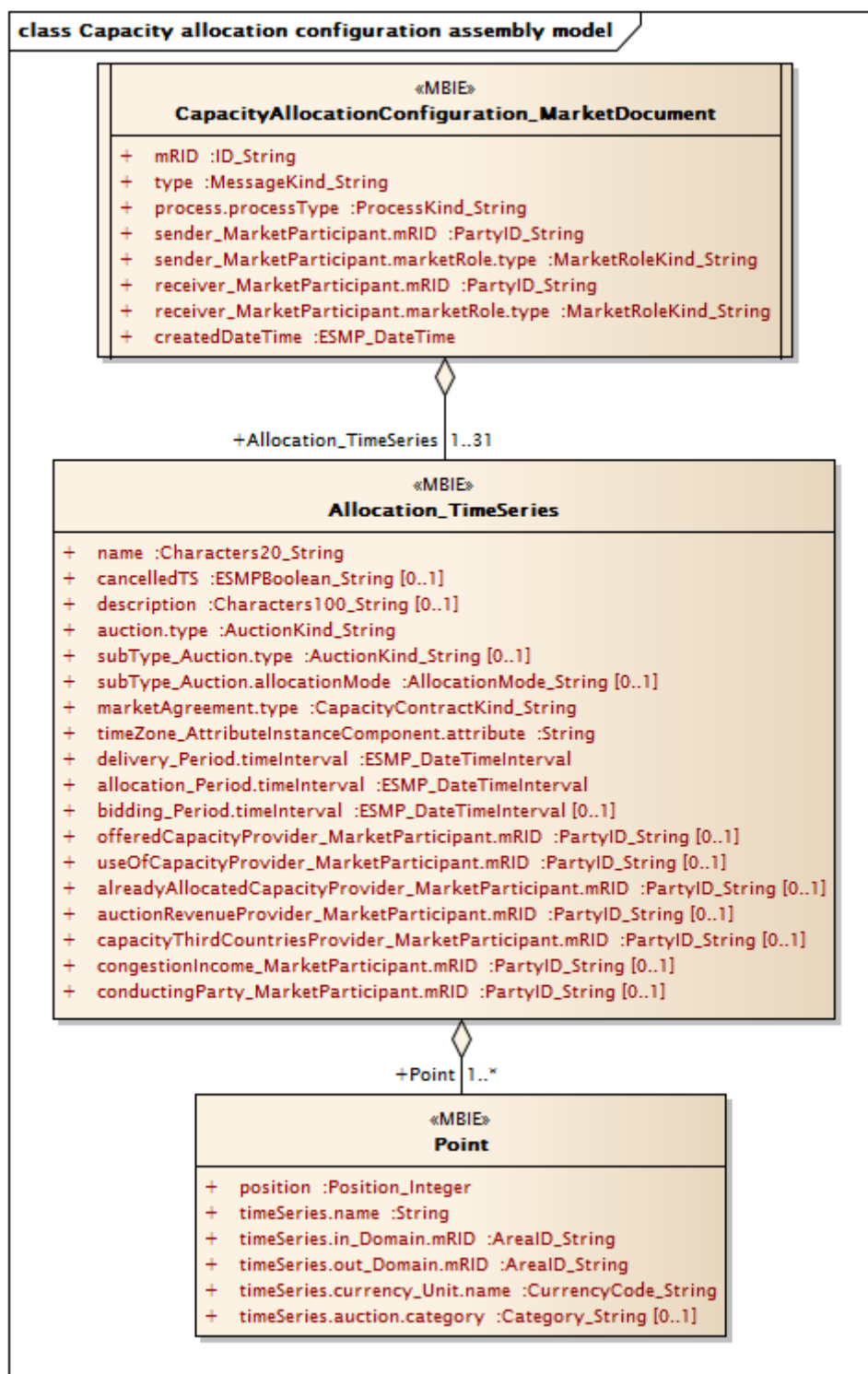


Figure 4 – Capacity allocation configuration assembly model

### 5.2.1 IsBasedOn relationships from the European style market profile

Table 4 shows the traceability dependency of the classes used in this package towards the upper level.

184

**Table 4 – IsBasedOn dependency**

Name	Complete IsBasedOn Path
Allocation_TimeSeries	TC57CIM::IEC62325::MarketManagement::TimeSeries
CapacityAllocationConfiguration_MarketDocument	TC57CIM::IEC62325::MarketManagement::MarketDocument
Point	TC57CIM::IEC62325::MarketManagement::Point

185

## 186 5.2.2 Detailed Capacity allocation configuration assembly model

### 187 5.2.2.1 CapacityAllocationConfiguration\_MarketDocument root class

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

190 The CapacityAllocationConfiguration\_MarketDocument is issued by the data provider to  
191 inform about the transmission capacity allocation calendar

192 It provides information on the auction that will be carried out.

193 Table 5 shows all attributes of CapacityAllocationConfiguration\_MarketDocument.

194 **Table 5 – Attributes of Capacity allocation configuration assembly**  
195 **model::CapacityAllocationConfiguration\_MarketDocument**

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]	type MessageKind_String	The coded type of a document. The document type describes the principal characteristic of the document.
2	[1..1]	process.processType ProcessKind_String	The identification of the nature of process that the document addresses.
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. --- The role associated with a MarketParticipant.
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. --- The role associated with a MarketParticipant.
7	[1..1]	createdDateTime ESMP_DateTime	The date and time of the creation of the document.

196

197 Table 6 shows all association ends of CapacityAllocationConfiguration\_MarketDocument with  
198 other classes.

**Table 6 – Association ends of Capacity allocation configuration assembly  
model::CapacityAllocationConfiguration\_MarketDocument with other classes**

Order	mult.	Class name / Role	Description
8	[1..31]	Allocation_TimeSeries Allocation_TimeSeries	The time series that is associated with an electronic document. Association Based On : Capacity allocation configuration contextual model::Allocation_TimeSeries.Allocation_TimeSeries[1..31] ----- Capacity allocation configuration contextual model::CapacityAllocationConfiguration_MarketDocument.[]

#### 5.2.2.2 Allocation\_TimeSeries

The Allocation\_TimeSeries provide the necessary information about what is auctioned as transmission capacity.

A maximum of 31 timeseries per document is accepted. Note that recurring allocations can be configured manually in the ENTSO-E central transparency platform via the web based graphical user interface.

Table 7 shows all attributes of Allocation\_TimeSeries.

**Table 7 – Attributes of Capacity allocation configuration assembly  
model::Allocation\_TimeSeries**

Order	mult.	Attribute name / Attribute type	Description
0	[1..1]	name Characters20_String	The name is any free human readable and possibly non unique text naming the object. This attribute identifies the allocation instance. It may be non unique; however the combination of the name and delivery_Period shall be unique.
1	[0..1]	cancelledTS ESMPBoolean_String	An indicator stating that the allocation instance is cancelled.
2	[0..1]	description Characters100_String	The description is a free human readable text describing or naming the object. It may be non unique and may not correlate to a naming hierarchy.
3	[1..1]	auction.type AuctionKind_String	The kind of the auction (e.g. implicit, explicit, ...).
4	[0..1]	subType_Auction.type AuctionKind_String	Additional information about the auction, i.e. shadow auction.
5	[0..1]	subType_Auction.allocationMode AllocationMode_String	The identification of the method of allocation in an auction.
6	[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 capacity will be allocated.
7	[1..1]	timeZone_AttributeInstanceComponent.attribute String	Definition of the time zone where the allocation is planned. This information could be used to map the UTC datetime values into the local business time. The identification of an attribute for a given request component. --- It provides the information of the local time zone where the allocation will be carried out.

Order	mult.	Attribute name / Attribute type	Description
8	[1..1]	delivery_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 when the capacity is to be used.
9	[1..1]	allocation_Period.timeInterval ESMP_DateTimeInterval	The start and end date and time for a given interval. --- The allocation period is the period of time during an auction when capacity allocation (e.g. auction for explicit capacity) is carried out
10	[0..1]	bidding_Period.timeInterval ESMP_DateTimeInterval	The start and end date and time for a given interval. --- The beginning and ending date and time of the bidding period within which capacity traders can submit a bid to the transmission capacity allocator.
11	[0..1]	offeredCapacityProvider_MarketParticipant.mRID PartyID_String	The identification of a party in the energy market. --- The identification of a market participant associated with a TimeSeries. The party providing data describing the offered capacity (article 11.1 of transparency regulation).
12	[0..1]	useOfCapacityProvider_MarketParticipant.mRID PartyID_String	The identification of a party in the energy market. --- The identification of a market participant associated with a TimeSeries. The party providing data describing the requested and allocated capacity, the price of the capacity and possibly also the auction revenue (article 12.1.a of transparency regulation).
13	[0..1]	alreadyAllocatedCapacityProvider_MarketParticipant.mRID PartyID_String	The identification of a party in the energy market. --- The identification of a market participant associated with a TimeSeries. The party providing data describing the already allocated capacity (article 12.1.c of transparency regulation).
14	[0..1]	auctionRevenueProvider_MarketParticipant.mRID PartyID_String	The identification of a party in the energy market. --- The identification of a market participant associated with a TimeSeries. The party providing data describing the auction revenue (article 12.1.a of transparency regulation).
15	[0..1]	capacityThirdCountriesProvider_MarketParticipant.mRID PartyID_String	The identification of a party in the energy market. --- The identification of a market participant associated with a TimeSeries. The party providing data describing the cross-zonal capacities allocated between bidding zones in Member States and third countries (article 12.1.h of transparency regulation).
16	[0..1]	congestionIncome_MarketParticipant.mRID PartyID_String	The identification of a party in the energy market. --- The identification of a market participant associated with a TimeSeries. The party providing data describing the congestion income (article 12.1.e of transparency regulation).



Order	mult.	Attribute name / Attribute type	Description
17	[0..1]	conductingParty_MarketParticipant.mRID PartyID_String	The identification of a party in the energy market. --- The identification of the party who manages the allocation process. The party conducting the capacity allocation.

211

212 Table 8 shows all association ends of Allocation\_TimeSeries with other classes.

213 **Table 8 – Association ends of Capacity allocation configuration assembly**  
214 **model::Allocation\_TimeSeries with other classes**

Order	mult.	Class name / Role	Description
18	[1..*]	Point Point	The values and the position associated with the TimeSeries. Association Based On : Capacity allocation configuration contextual model::Point.Point[1..*] ----- Capacity allocation configuration contextual model::Allocation_TimeSeries.[]

215

### 216 5.2.2.3 Point

217 The identification of the values.

218 Table 9 shows all attributes of Point.

219 **Table 9 – Attributes of Capacity allocation configuration assembly model::Point**

Order	mult.	Attribute name / Attribute type	Description
0	[1..1]	position Position_Integer	A sequential value representing a relative sequence number. This defines the sequence of the capacity product within a given auction category such as Base 1 or Base 2. This corresponds to the auction round being carried out for a product category.
1	[1..1]	timeSeries.name String	The name is any free human readable and possibly non unique text naming the object. Any human readable and possibly non unique text naming the capacity product, for example EURO Base 1 FR>BE. --- TheTimeSeries provides additional information related to a Position within a given time interval.
2	[1..1]	timeSeries.in_Domain.mRID AreaID_String	The unique identification of the domain. --- TheTimeSeries provides additional information related to a Position within a given time interval. --- The identification of the area where the energy is flowing into. The identification of the area where the energy is destined for the capacity product. The codification scheme used for the coded identification is indicated by the coding scheme attribute. Refer to ENTSO-E Core Component Code list document for valid coding scheme codes.
3	[1..1]	timeSeries.out_Domain.mRID AreaID_String	The unique identification of the domain. --- TheTimeSeries provides additional information related to a Position within a given time interval. --- The identification of the area from where the energy is coming. The identification of the area where the energy is destined for the capacity product. The codification scheme used for the coded identification is indicated by the coding scheme attribute. Refer to ENTSO-E Core Component Code list document for valid coding scheme codes.

Order	mult.	Attribute name / Attribute type	Description
4	[1..1]	timeSeries.currency_Unit.name CurrencyCode_String	The identification of the formal code for a currency (ISO 4217). --- TheTimeSeries provides additional information related to a Position within a given time interval. --- The currency associated with a TimeSeries.
5	[0..1]	timeSeries.auction.category Category_String	The product category of an auction. --- TheTimeSeries provides additional information related to a Position within a given time interval. --- The auction characteristics that are associated with a TimeSeries. The category of the capacity product as defined by market rules. This information describes what hours of the day are covered by the product. The following codes have been initially defined: A01: Base A02: Peak A03: Off-peak A04: Hourly

220

### 221 5.2.3 Datatypes

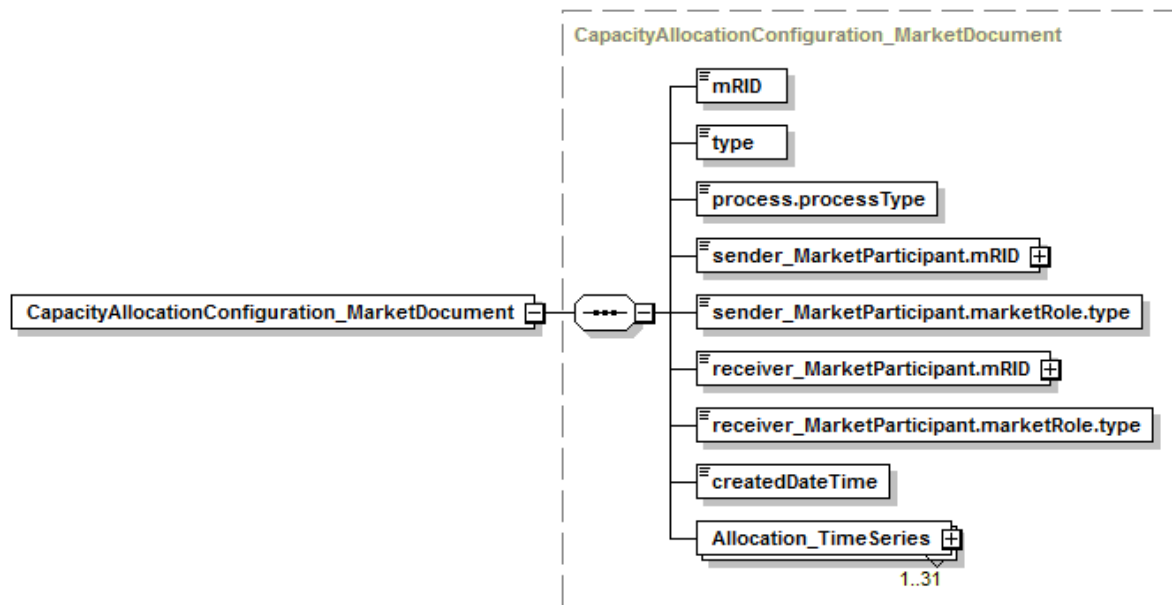
222 The list of datatypes used for the Capacity allocation configuration assembly model is as  
223 follows:

- 224 • ESMP\_DateTimeInterval compound
- 225 • AllocationMode\_String datatype, codelist AllocationModeTypeList
- 226 • AreaID\_String datatype, codelist CodingSchemeTypeList
- 227 • AuctionKind\_String datatype, codelist AuctionTypeList
- 228 • CapacityContractKind\_String datatype, codelist ContractTypeList
- 229 • Category\_String datatype, codelist CategoryTypeList
- 230 • Characters100\_String datatype
- 231 • Characters20\_String datatype
- 232 • CurrencyCode\_String datatype, codelist CurrencyTypeList
- 233 • ESMP\_DateTime datatype
- 234 • ESMPBoolean\_String datatype, codelist IndicatorTypeList
- 235 • ID\_String datatype
- 236 • MarketRoleKind\_String datatype, codelist RoleTypeList
- 237 • MessageKind\_String datatype, codelist MessageTypeList
- 238 • PartyID\_String datatype, codelist CodingSchemeTypeList
- 239 • Position\_Integer datatype
- 240 • ProcessKind\_String datatype, codelist ProcessTypeList
- 241 • YMDHM\_DateTime datatype

## 242 6 XML schema

### 243 6.1 Schema structure

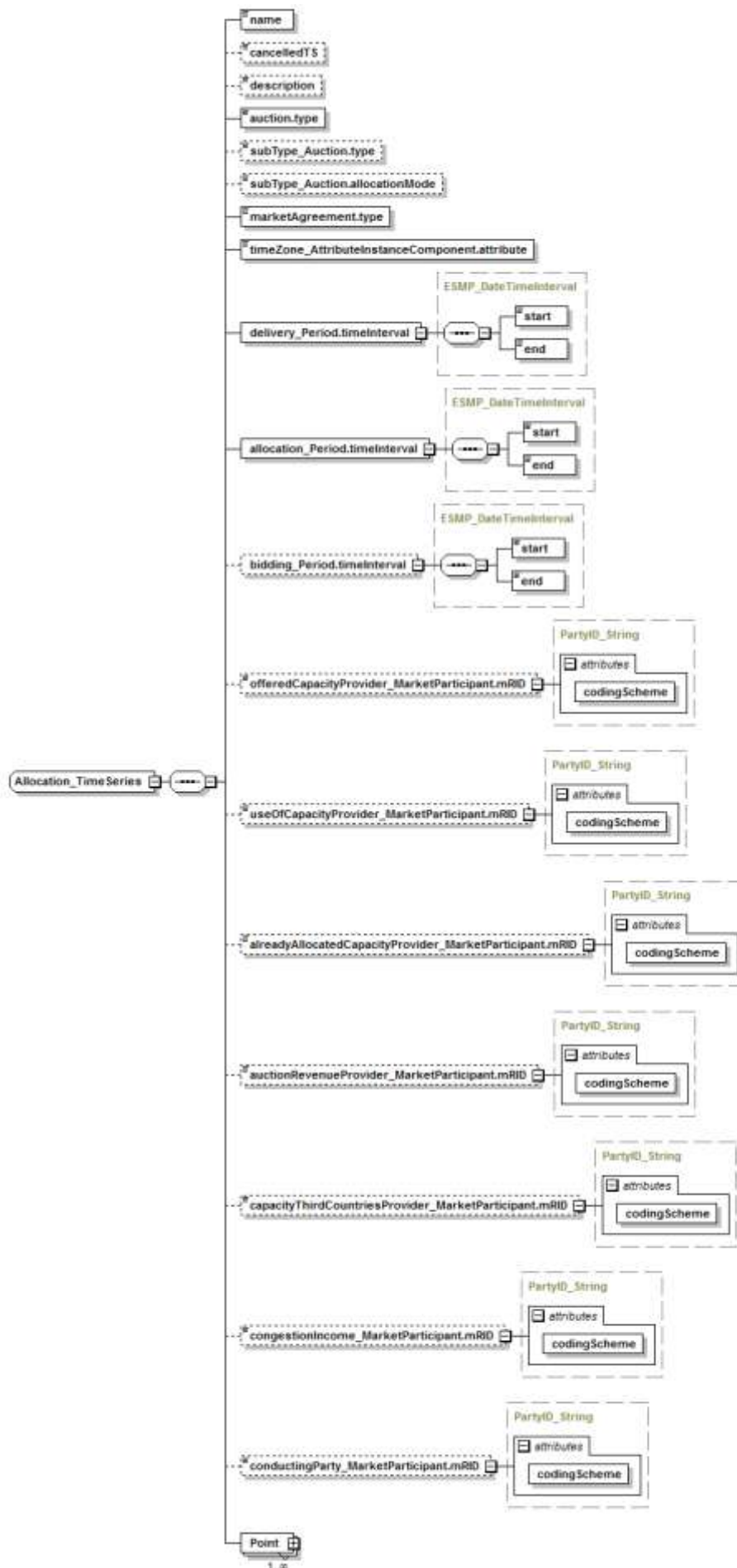
244 Figure 5 to Figure 7 provide the schema.



245

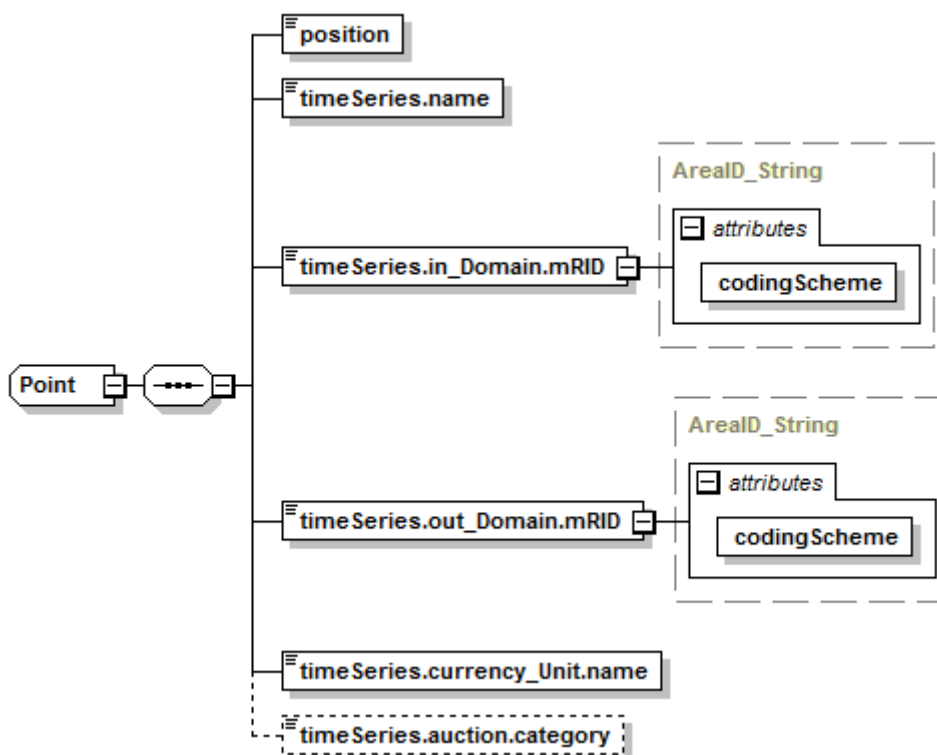
246

Figure 5 – Capacity allocation configuration document schema – 1/3



248

**Figure 6 – Capacity allocation configuration document schema – 2/3**



249

250

**Figure 7 – Capacity allocation configuration document schema – 3/3**

## 251 6.2 Schema description

```

252 <?xml version="1.0" encoding="utf-8"?>
253 <xs:schema xmlns:cl="urn:entsoe.eu:wgedi:codelists"
254 xmlns:sawsdl="http://www.w3.org/ns/sawsdl" xmlns="urn:iec62325.351:tc57wg16:451-
255 n:capacityallocationconfigurationdocument:1:0"
256 xmlns:cimp="http://www.iec.ch/cimprofile" attributeFormDefault="unqualified"
257 elementFormDefault="qualified" targetNamespace="urn:iec62325.351:tc57wg16:451-
258 n:capacityallocationconfigurationdocument:1:0"
259 xmlns:xs="http://www.w3.org/2001/XMLSchema">
260   <xs:import schemaLocation="urn-entsoe-eu-wgedi-codelists.xsd"
261 namespace="urn:entsoe.eu:wgedi:codelists" />
262   <xs:element name="CapacityAllocationConfiguration_MarketDocument"
263 type="CapacityAllocationConfiguration_MarketDocument" />
264   <xs:simpleType name="Characters20_String"
265 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
266     <xs:restriction base="xs:string">
267       <xs:maxLength value="20" />
268     </xs:restriction>
269   </xs:simpleType>
270   <xs:simpleType name="ESMPBoolean_String"
271 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
272     <xs:restriction base="cl:IndicatorTypeList" />
273   </xs:simpleType>
274   <xs:simpleType name="Characters100_String"
275 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
276     <xs:restriction base="xs:string">
277       <xs:maxLength value="100" />
278     </xs:restriction>
279   </xs:simpleType>
280   <xs:simpleType name="AuctionKind_String"
281 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
282     <xs:restriction base="cl:AuctionTypeList" />
283   </xs:simpleType>
284   <xs:simpleType name="AllocationMode_String"
285 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">

```



```

286 <xs:restriction base="cl:AllocationModeTypeList" />
287 </xs:simpleType>
288 <xs:simpleType name="CapacityContractKind_String"
289 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
290 <xs:restriction base="cl:ContractTypeList" />
291 </xs:simpleType>
292 <xs:simpleType name="PartyID_String-base"
293 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
294 <xs:restriction base="xs:string">
295 <xs:maxLength value="16" />
296 </xs:restriction>
297 </xs:simpleType>
298 <xs:complexType name="PartyID_String"
299 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
300 <xs:simpleContent>
301 <xs:extension base="PartyID_String-base">
302 <xs:attribute name="codingScheme" type="cl:CodingSchemeTypeList"
303 use="required" />
304 </xs:extension>
305 </xs:simpleContent>
306 </xs:complexType>
307 <xs:simpleType name="YMDHM_DateTime"
308 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#DateTime">
309 <xs:restriction base="xs:string">
310 <xs:pattern value="((([0-9]{4})[\-](0[13578]|1[02])[\-](0[1-9]|12)[0-
311 9]|3[01])|([0-9]{4})[\-]((0[469])|(11))[\-](0[1-9]|12)[0-9]|30))T((01)[0-9]|2[0-
312 3]):[0-5][0-9]Z)|(((13579)[26][02468][048]|13579)[01345789](0)[48]|13579)[01345789][2468][048]
313 |13579)[02468][048]|13579)[1235679](0)[48]|13579)[1235679][2468][048]|13579)[0-
314 9][0-9]|13579)[26])[\-](02)[\-](0[1-9]|1[0-9]|2[0-9])T((01)[0-9]|2[0-3]):[0-5][0-
315 9])Z)|(((13579)[26][02468][1235679]|13579)[01345789](0)[01235679]|13579)[01345789][
316 2468][1235679]|13579)[02468][048]|13579)[1235679]|13579)[1235679](0)[01235679]|13579)[123
317 5679][2468][1235679]|13579)[0-9][0-9]|13579)[01345789])[\-](02)[\-](0[1-9]|1[0-9]|2[0-
318 8])T((01)[0-9]|2[0-3]):[0-5][0-9])Z)" />
319 </xs:restriction>
320 </xs:simpleType>
321 <xs:complexType name="ESMP_DateTimeInterval"
322 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#DateTimeInterval">
323 <xs:sequence>
324 <xs:element minOccurs="1" maxOccurs="1" name="start" type="YMDHM_DateTime"
325 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
326 cim16#DateTimeInterval.start">
327 </xs:element>
328 <xs:element minOccurs="1" maxOccurs="1" name="end" type="YMDHM_DateTime"
329 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
330 cim16#DateTimeInterval.end">
331 </xs:element>
332 </xs:sequence>
333 </xs:complexType>
334 <xs:complexType name="Allocation_TimeSeries"
335 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#TimeSeries">
336 <xs:sequence>
337 <xs:element minOccurs="1" maxOccurs="1" name="name" type="Characters20_String"
338 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
339 cim16#IdentifiedObject.name">
340 </xs:element>
341 <xs:element minOccurs="0" maxOccurs="1" name="cancelledTS"
342 type="ESMPBoolean_String" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
343 cim16#TimeSeries.cancelledTS">
344 </xs:element>
345 <xs:element minOccurs="0" maxOccurs="1" name="description"
346 type="Characters100_String" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-
347 schema-cim16#IdentifiedObject.description">
348 </xs:element>
349 <xs:element minOccurs="1" maxOccurs="1" name="auction.type"
350 type="AuctionKind_String" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
351 cim16#Auction.type">
352 </xs:element>
353

```

```

354         <xs:element minOccurs="0" maxOccurs="1" name="subType_Auction.type"
355 type="AuctionKind_String" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
356 cim16#Auction.type">
357         </xs:element>
358         <xs:element minOccurs="0" maxOccurs="1" name="subType_Auction.allocationMode"
359 type="AllocationMode_String" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-
360 schema-cim16#Auction.allocationMode">
361         </xs:element>
362         <xs:element minOccurs="1" maxOccurs="1" name="marketAgreement.type"
363 type="CapacityContractKind_String"
364 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#Document.type">
365         </xs:element>
366         <xs:element minOccurs="1" maxOccurs="1"
367 name="timeZone_AttributeInstanceComponent.attribute" type="xs:string"
368 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
369 cim16#AttributeInstanceComponent.attribute">
370         </xs:element>
371         <xs:element minOccurs="1" maxOccurs="1" name="delivery_Period.timeInterval"
372 type="ESMP_DateTimeInterval" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-
373 schema-cim16#Period.timeInterval">
374         </xs:element>
375         <xs:element minOccurs="1" maxOccurs="1" name="allocation_Period.timeInterval"
376 type="ESMP_DateTimeInterval" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-
377 schema-cim16#Period.timeInterval">
378         </xs:element>
379         <xs:element minOccurs="0" maxOccurs="1" name="bidding_Period.timeInterval"
380 type="ESMP_DateTimeInterval" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-
381 schema-cim16#Period.timeInterval">
382         </xs:element>
383         <xs:element minOccurs="0" maxOccurs="1"
384 name="offeredCapacityProvider_MarketParticipant.mRID" type="PartyID_String"
385 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
386 cim16#IdentifiedObject.mRID">
387         </xs:element>
388         <xs:element minOccurs="0" maxOccurs="1"
389 name="useOfCapacityProvider_MarketParticipant.mRID" type="PartyID_String"
390 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
391 cim16#IdentifiedObject.mRID">
392         </xs:element>
393         <xs:element minOccurs="0" maxOccurs="1"
394 name="alreadyAllocatedCapacityProvider_MarketParticipant.mRID" type="PartyID_String"
395 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
396 cim16#IdentifiedObject.mRID">
397         </xs:element>
398         <xs:element minOccurs="0" maxOccurs="1"
399 name="auctionRevenueProvider_MarketParticipant.mRID" type="PartyID_String"
400 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
401 cim16#IdentifiedObject.mRID">
402         </xs:element>
403         <xs:element minOccurs="0" maxOccurs="1"
404 name="capacityThirdCountriesProvider_MarketParticipant.mRID" type="PartyID_String"
405 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
406 cim16#IdentifiedObject.mRID">
407         </xs:element>
408         <xs:element minOccurs="0" maxOccurs="1"
409 name="congestionIncome_MarketParticipant.mRID" type="PartyID_String"
410 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
411 cim16#IdentifiedObject.mRID">
412         </xs:element>
413         <xs:element minOccurs="0" maxOccurs="1"
414 name="conductingParty_MarketParticipant.mRID" type="PartyID_String"
415 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
416 cim16#IdentifiedObject.mRID">
417         </xs:element>
418         <xs:element minOccurs="1" maxOccurs="unbounded" name="Point" type="Point"
419 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#TimeSeries.Point">
420         </xs:element>
421     </xs:sequence>
422 </xs:complexType>

```



```

423     <xs:simpleType name="ID_String" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-
424 schema-cim16#String">
425     <xs:restriction base="xs:string">
426     <xs:maxLength value="35" />
427     </xs:restriction>
428     </xs:simpleType>
429     <xs:simpleType name="MessageKind_String"
430 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
431     <xs:restriction base="cl:MessageTypeList" />
432     </xs:simpleType>
433     <xs:simpleType name="ProcessKind_String"
434 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
435     <xs:restriction base="cl:ProcessTypeList" />
436     </xs:simpleType>
437     <xs:simpleType name="MarketRoleKind_String"
438 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
439     <xs:restriction base="cl:RoleTypeList" />
440     </xs:simpleType>
441     <xs:simpleType name="ESMP_DateTime"
442 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#DateTime">
443     <xs:restriction base="xs:dateTime">
444     <xs:pattern value="((([0-9]{4})[-](0[13578]|1[02])[-](0[1-9]|12)[0-
445 9]|3[01])|([0-9]{4})[-](0[469]|(11))[-](0[1-9]|12)[0-9]|30))T((([01][0-9]|2[0-
446 3]):[0-5][0-9]:[0-5][0-
447 9])Z)|(((13579)[26][02468][048]|13579[01345789](0)[48]|13579[01345789][2468][048]
448 |12468[048][02468][048]|12468[1235679](0)[48]|12468[1235679][2468][048]|0-
449 9)[0-9][13579][26])[-](02)[-](0[1-9]|1[0-9]|2[0-9])T((([01][0-9]|2[0-3]):[0-5][0-
450 9]:[0-5][0-
451 9])Z)|(((13579)[26][02468][1235679]|13579[01345789](0)[01235679]|13579[01345789][
452 2468][1235679]|12468[048][02468][1235679]|12468[1235679](0)[01235679]|12468[123
453 5679][2468][1235679]|0-9)[0-9][13579][01345789])[-](02)[-](0[1-9]|1[0-9]|2[0-
454 8])T((([01][0-9]|2[0-3]):[0-5][0-9]:[0-5][0-9])Z)" />
455     </xs:restriction>
456     </xs:simpleType>
457     <xs:complexType name="CapacityAllocationConfiguration_MarketDocument"
458 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#MarketDocument">
459     <xs:sequence>
460     <xs:element minOccurs="1" maxOccurs="1" name="mRID" type="ID_String"
461 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
462 cim16#IdentifiedObject.mRID">
463     </xs:element>
464     <xs:element minOccurs="1" maxOccurs="1" name="type" type="MessageKind_String"
465 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#Document.type">
466     </xs:element>
467     <xs:element minOccurs="1" maxOccurs="1" name="process.processType"
468 type="ProcessKind_String" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
469 cim16#Process.processType">
470     </xs:element>
471     <xs:element minOccurs="1" maxOccurs="1" name="sender_MarketParticipant.mRID"
472 type="PartyID_String" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
473 cim16#IdentifiedObject.mRID">
474     </xs:element>
475     <xs:element minOccurs="1" maxOccurs="1"
476 name="sender_MarketParticipant.marketRole.type" type="MarketRoleKind_String"
477 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#MarketRole.type">
478     </xs:element>
479     <xs:element minOccurs="1" maxOccurs="1" name="receiver_MarketParticipant.mRID"
480 type="PartyID_String" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
481 cim16#IdentifiedObject.mRID">
482     </xs:element>
483     <xs:element minOccurs="1" maxOccurs="1"
484 name="receiver_MarketParticipant.marketRole.type" type="MarketRoleKind_String"
485 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#MarketRole.type">
486     </xs:element>
487     <xs:element minOccurs="1" maxOccurs="1" name="createdDateTime"
488 type="ESMP_DateTime" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
489 cim16#Document.createdDateTime">
490     </xs:element>

```



```

491         <xs:element minOccurs="1" maxOccurs="31" name="Allocation_TimeSeries"
492 type="Allocation_TimeSeries" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-
493 schema-cim16#MarketDocument.Allocation_TimeSeries">
494     </xs:element>
495 </xs:sequence>
496 </xs:complexType>
497 <xs:simpleType name="Position_Integer"
498 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#Integer">
499     <xs:restriction base="xs:integer">
500         <xs:maxInclusive value="999999" />
501         <xs:minInclusive value="1" />
502     </xs:restriction>
503 </xs:simpleType>
504 <xs:simpleType name="AreaID_String-base"
505 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
506     <xs:restriction base="xs:string">
507         <xs:maxLength value="18" />
508     </xs:restriction>
509 </xs:simpleType>
510 <xs:complexType name="AreaID_String"
511 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
512     <xs:simpleContent>
513         <xs:extension base="AreaID_String-base">
514             <xs:attribute name="codingScheme" type="cl:CodingSchemeTypeList"
515 use="required" />
516         </xs:extension>
517     </xs:simpleContent>
518 </xs:complexType>
519 <xs:simpleType name="CurrencyCode_String"
520 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
521     <xs:restriction base="cl:CurrencyTypeList" />
522 </xs:simpleType>
523 <xs:simpleType name="Category_String"
524 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
525     <xs:restriction base="cl:CategoryTypeList" />
526 </xs:simpleType>
527 <xs:complexType name="Point" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-
528 schema-cim16#Point">
529     <xs:sequence>
530         <xs:element minOccurs="1" maxOccurs="1" name="position" type="Position_Integer"
531 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#Point.position">
532     </xs:element>
533         <xs:element minOccurs="1" maxOccurs="1" name="timeSeries.name" type="xs:string"
534 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
535 cim16#IdentifiedObject.name">
536     </xs:element>
537         <xs:element minOccurs="1" maxOccurs="1" name="timeSeries.in_Domain.mRID"
538 type="AreaID_String" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
539 cim16#IdentifiedObject.mRID">
540     </xs:element>
541         <xs:element minOccurs="1" maxOccurs="1" name="timeSeries.out_Domain.mRID"
542 type="AreaID_String" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
543 cim16#IdentifiedObject.mRID">
544     </xs:element>
545         <xs:element minOccurs="1" maxOccurs="1" name="timeSeries.currency_Unit.name"
546 type="CurrencyCode_String" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
547 cim16#Unit.name">
548     </xs:element>
549         <xs:element minOccurs="0" maxOccurs="1" name="timeSeries.auction.category"
550 type="Category_String" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
551 cim16#Auction.category">
552     </xs:element>
553     </xs:sequence>
554 </xs:complexType>
555 </xs:schema>

```