



European Network of  
Transmission System Operators  
for Electricity

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# BID AVAILABILITY DOCUMENT UML MODEL AND SCHEMA

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2020-12-15  
APPROVED DOCUMENT  
VERSION 1.0

2

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54

## Revision History

Version	Release	Date	Comments
0	1	2020-10-15	First draft of the document.
1	0	2020-12-15	Approved by MC.

55

## 56 1 Objective

57 The purpose of this document is to provide the contextual and assembly UML models and the  
58 schema of the BidAvailability\_MarketDocument.

59 The schema of the BidAvailability\_MarketDocument could be used in various business  
60 processes.

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

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

- 65 • Description of the business process;
- 66 • Use case of the business process;
- 67 • Sequence diagrams of the business process;
- 68 • List of the schema (XSD) to be used in the business process and versions of the  
69 schema;
- 70 • For each schema, dependency tables providing the necessary information for the  
71 generation of the XML instances, i.e. when the optional attributes are to be used, which  
72 codes from which ENTSO-E codelist are to be used.

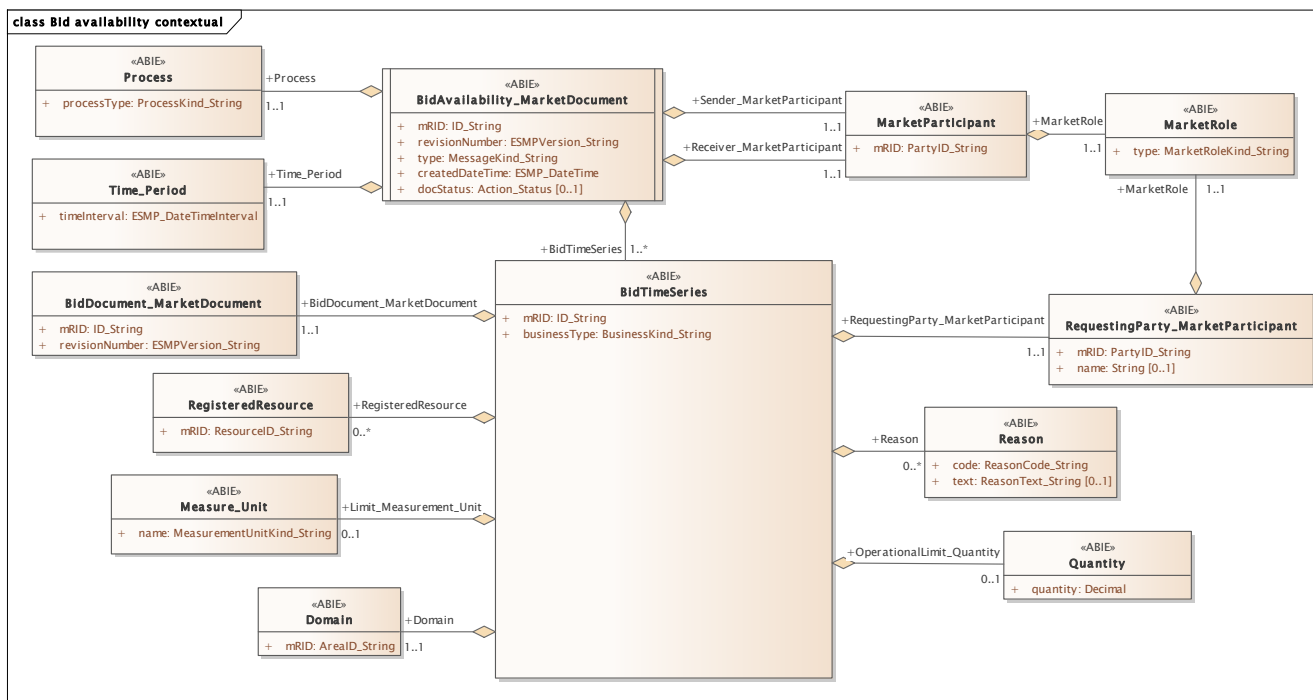
73

74 **2 BidAvailability\_MarketDocument**

75 **2.1 Bid availability contextual**

76 **2.1.1 Overview of the model**

77 Figure 1 shows the model.



78

79

Figure 1 - Bid availability contextual

80

81 **2.1.2 IsBasedOn relationships from the European style market profile**

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

84

**Table 1 - IsBasedOn dependency**

Name	Complete IsBasedOn Path
BidAvailability_MarketDocument	TC57CIM::IEC62325::MarketManagement::MarketDocument
BidDocument_MarketDocument	TC57CIM::IEC62325::MarketManagement::MarketDocument
BidTimeSeries	TC57CIM::IEC62325::MarketManagement::BidTimeSeries
Domain	TC57CIM::IEC62325::MarketManagement::Domain
MarketParticipant	TC57CIM::IEC62325::MarketCommon::MarketParticipant
MarketRole	TC57CIM::IEC62325::MarketCommon::MarketRole
Measure_Unit	TC57CIM::IEC62325::MarketManagement::Unit
Process	TC57CIM::IEC62325::MarketManagement::Process
Quantity	TC57CIM::IEC62325::MarketManagement::Quantity
Reason	TC57CIM::IEC62325::MarketManagement::Reason
RegisteredResource	TC57CIM::IEC62325::MarketCommon::RegisteredResource
RequestingParty_MarketParticipant	TC57CIM::IEC62325::MarketCommon::MarketParticipant
Time_Period	TC57CIM::IEC62325::MarketManagement::Period

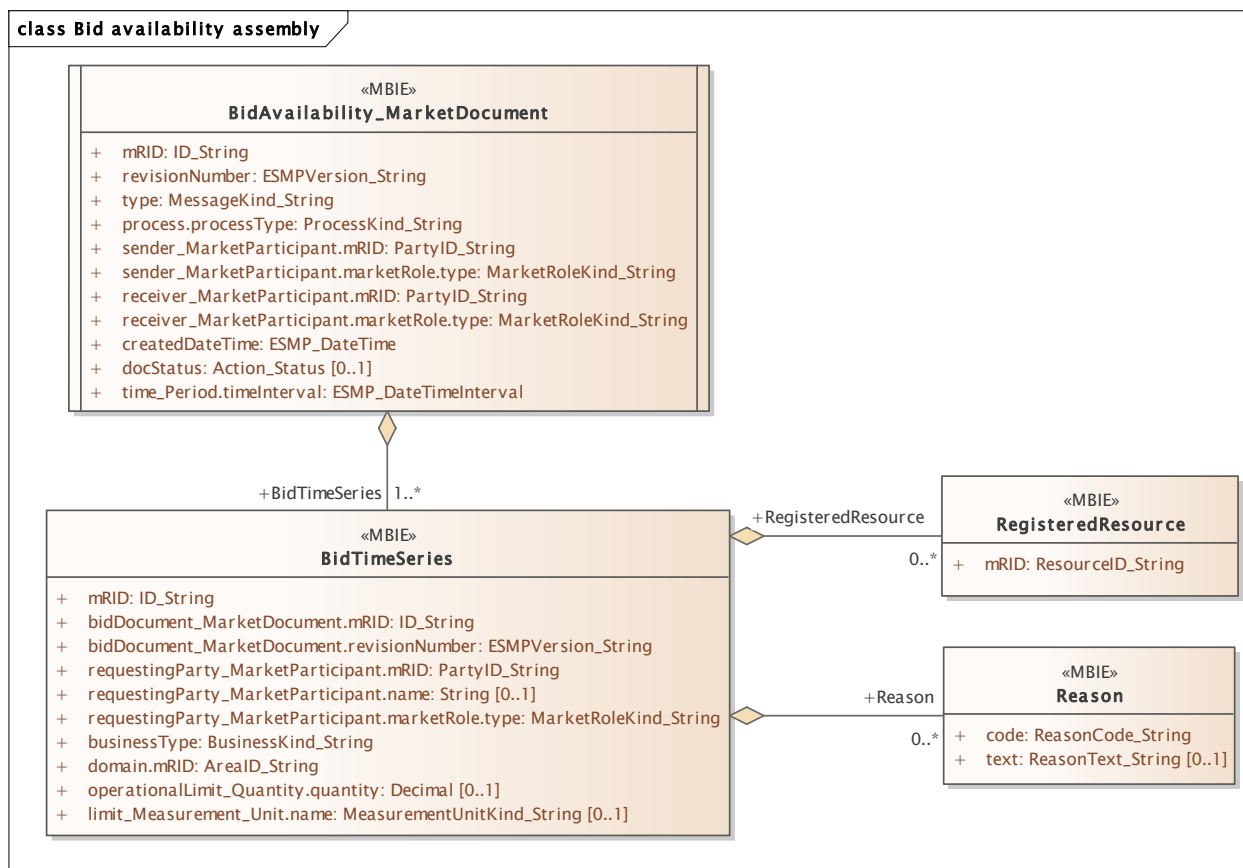
85

86

87 **2.2 Bid availability assembly**

88 **2.2.1 Overview of the model**

89 Figure 2 shows the model.



90

91

**Figure 2 - Bid availability assembly**

92 **2.2.2 IsBasedOn relationships from the European style market profile**

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

95

**Table 2 - IsBasedOn dependency**

Name	Complete IsBasedOn Path
BidAvailability_MarketDocument	TC57CIM::IEC62325::MarketManagement::MarketDocument
BidTimeSeries	TC57CIM::IEC62325::MarketManagement::BidTimeSeries
Reason	TC57CIM::IEC62325::MarketManagement::Reason
RegisteredResource	TC57CIM::IEC62325::MarketCommon::RegisteredResource

96



97

98 **2.2.3 Detailed Bid availability assembly**

99 **2.2.3.1 BidAvailability\_MarketDocument root class**

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

102 Table 3 shows all attributes of BidAvailability\_MarketDocument.

103 **Table 3 - Attributes of Bid availability assembly::BidAvailability\_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]	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.
3	[1..1]	process.processType ProcessKind_String	The identification of the nature of process that the document addresses. --- The Process associated with an electronic document header that is valid for the whole document.
4	[1..1]	sender_MarketParticipant.mRID PartyID_String	The identification of a party in the energy market. --- Document owner
5	[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.
6	[1..1]	receiver_MarketParticipant.mRID PartyID_String	The identification of a party in the energy market. --- Document recipient.
7	[1..1]	receiver_MarketParticipant.marketRole.type MarketRoleKind_String	The identification of the role played by a market player. --- The MarketParticipant associated with an electronic document header. --- The role associated with a MarketParticipant.
8	[1..1]	createdDateTime ESMP_DateTime	The date and time of the creation of the document.
9	[0..1]	docStatus Action_Status	The identification of the condition or position of the document with regard to its standing.
10	[1..1]	time_Period.timeInterval ESMP_DateTimeInterval	The start and end date and time for a given interval. --- The time interval that is associated with an electronic document and which is valid for the whole document.

104

105 Table 4 shows all association ends of BidAvailability\_MarketDocument with other classes.

106 **Table 4 - Association ends of Bid availability assembly::BidAvailability\_MarketDocument with other classes**  
107

Order	mult.	Class name / Role	Description
11	[1..*]	BidTimeSeries BidTimeSeries	The time series that is associated with an electronic document. Association Based On: Bid availability contextual::BidTimeSeries.BidTimeSeries[1..*] ----- Bid availability contextual::BidAvailability_MarketDocument.[]

108

109 **2.2.3.2 BidTimeSeries**

110 The formal specification of specific characteristics related to a bid.

111 Table 5 shows all attributes of BidTimeSeries.

112 **Table 5 - Attributes of Bid availability assembly::BidTimeSeries**

Order	mult.	Attribute name / Attribute type	Description
0	[1..1]	mRID ID_String	A unique identification of the bid time series.
1	[1..1]	bidDocument_MarketDocument.mRID ID_String	The unique identification of the document being exchanged within a business process flow. In the ESMP context, the "model authority" is defined as a party (originator of the exchange) that provides an identification in the context of a business exchange such as document identification, ... Master resource identifier issued by a model authority. The mRID is globally unique within an exchange context. Global uniqueness is easily achieved by using a UUID for the mRID. It is strongly recommended to do this. For CIMXML data files in RDF syntax, the mRID is mapped to rdf:ID or rdf:about attributes that identify CIM object elements. --- The identification of an electronic document associated with a TimeSeries.
2	[1..1]	bidDocument_MarketDocument.revisionNumber ESMPVersion_String	The identification of the version that distinguishes one evolution of a document from another. --- The identification of an electronic document associated with a TimeSeries.
3	[1..1]	requestingParty_MarketParticipant.mRID PartyID_String	The identification of a party in the energy market. In the ESMP context, the "model authority" is defined as an authorized issuing office that provides an agreed identification coding scheme for market participant, domain, measurement point, resources (generator, lines, substations, etc.) identification. Master resource identifier issued by a model authority. The mRID is globally unique within an exchange context. Global uniqueness is easily achieved by using a UUID for the mRID. It is strongly recommended to do this. For CIMXML data files in RDF syntax, the mRID is mapped to rdf:ID or rdf:about attributes that identify CIM object elements. --- The identification of a market participant associated with a TimeSeries.
4	[0..1]	requestingParty_MarketParticipant.name String	The name is any free human readable and possibly non unique text naming the object. --- The identification of a market participant associated with a TimeSeries.
5	[1..1]	requestingParty_MarketParticipant.marketRole.type MarketRoleKind_String	The identification of the role played by a market player. --- The identification of a market participant associated with a TimeSeries. --- The role associated with a MarketParticipant.
6	[1..1]	businessType BusinessKind_String	The identification of the nature of the time series.
7	[1..1]	domain.mRID AreaID_String	The unique identification of the domain. --- The domain associated with a TimeSeries.

Order	mult.	Attribute name / Attribute type	Description
8	[0..1]	operationalLimit_Quantity.quantity Decimal	The quantity value. The association role provides the information about what is expressed. --- The quantity information associated to a TimeSeries.
9	[0..1]	limit_Measurement_Unit.name MeasurementUnitKind_String	The identification of the formal code for a measurement unit (UN/ECE Recommendation 20). --- The unit of measure associated with the quantities in a TimeSeries.

113

114 Table 6 shows all association ends of BidTimeSeries with other classes.

115 **Table 6 - Association ends of Bid availability assembly::BidTimeSeries with other**  
116 **classes**

Order	mult.	Class name / Role	Description
10	[0..*]	RegisteredResource RegisteredResource	The identification of a resource associated with a TimeSeries. Association Based On: Bid availability contextual::RegisteredResource.RegisteredResource[0..*] ----- Bid availability contextual::BidTimeSeries.[]
11	[0..*]	Reason Reason	The reason information associated with a TimeSeries providing motivation information. Association Based On: Bid availability contextual::Reason.Reason[0..*] ----- Bid availability contextual::BidTimeSeries.[]

117

### 118 2.2.3.3 Reason

119 The motivation of an act.

120 Table 7 shows all attributes of Reason.

121 **Table 7 - Attributes of Bid availability assembly::Reason**

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.

122

### 123 2.2.3.4 RegisteredResource

124 A resource that is registered through the market participant registration system. Examples  
125 include generating unit, load, and non-physical generator or load.

126 Table 8 shows all attributes of RegisteredResource.

127

**Table 8 - Attributes of Bid availability assembly::RegisteredResource**

Order	mult.	Attribute name / Attribute type	Description
0	[1..1]	mRID ResourceID_String	The unique identification of a resource. In the ESMP context, the "model authority" is defined as an authorized issuing office that provides an agreed identification coding scheme for market participant, domain, measurement point, resources (generator, lines, substations, etc.) identification. Master resource identifier issued by a model authority. The mRID is globally unique within an exchange context. Global uniqueness is easily achieved by using a UUID for the mRID. It is strongly recommended to do this. For CIMXML data files in RDF syntax, the mRID is mapped to rdf:ID or rdf:about attributes that identify CIM object elements.

128

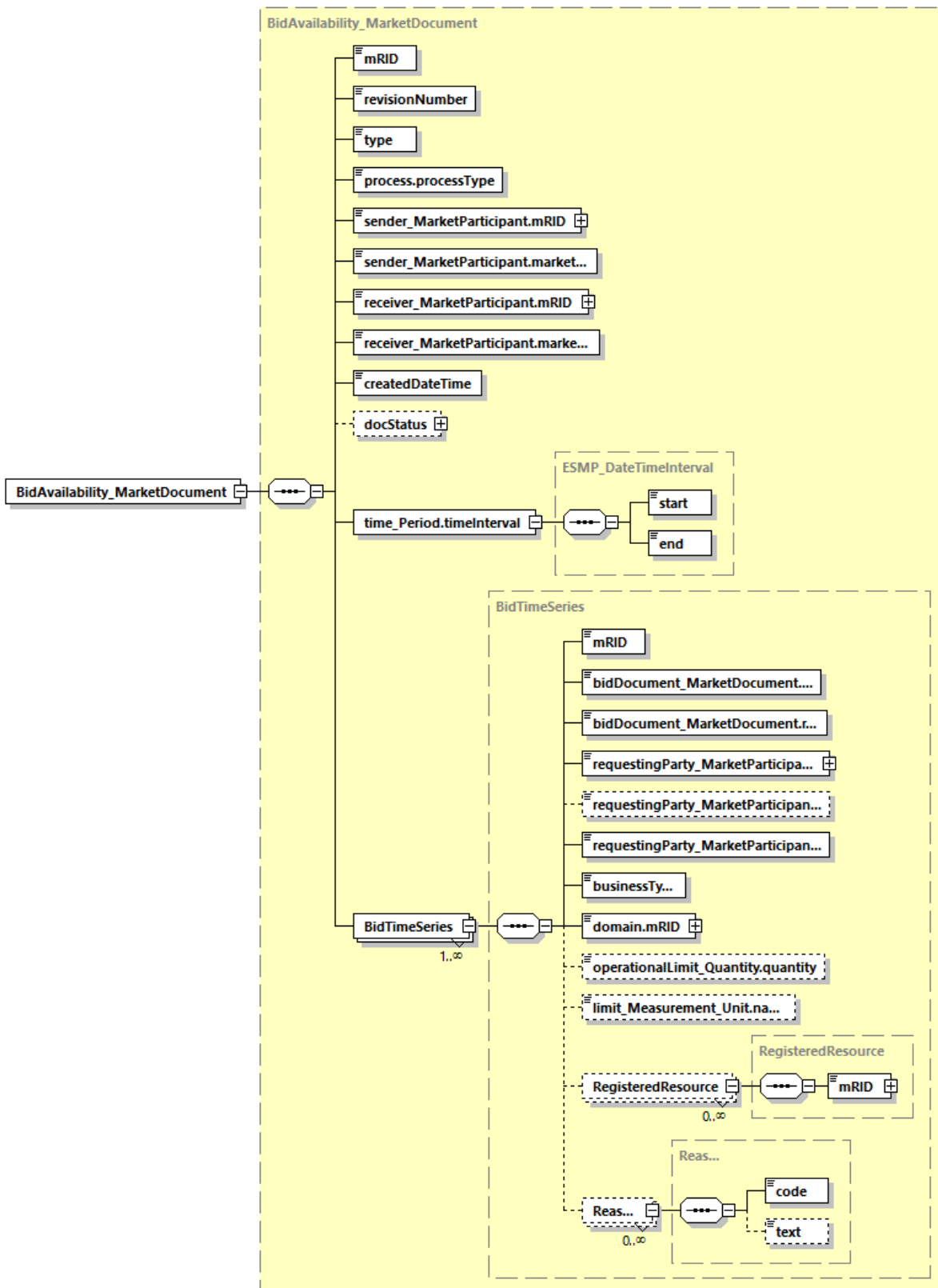
## 129 2.2.4 Datatypes

130 The list of datatypes used for the Bid availability assembly is as follows:

- 131 • Action\_Status compound
  - 132 • ESMP\_DateTimeInterval compound
  - 133 • AreaID\_String datatype, codelist CodingSchemeTypeList
  - 134 • BusinessKind\_String datatype, codelist BusinessTypeList
  - 135 • ESMP\_DateTime datatype
  - 136 • ESMPVersion\_String datatype
  - 137 • ID\_String datatype
  - 138 • MarketRoleKind\_String datatype, codelist RoleTypeList
  - 139 • MeasurementUnitKind\_String datatype, codelist UnitOfMeasureTypeList
  - 140 • MessageKind\_String datatype, codelist MessageTypeList
  - 141 • PartyID\_String datatype, codelist CodingSchemeTypeList
  - 142 • ProcessKind\_String datatype, codelist ProcessTypeList
  - 143 • ReasonCode\_String datatype, codelist ReasonCodeTypeList
  - 144 • ReasonText\_String datatype
  - 145 • ResourceID\_String datatype, codelist CodingSchemeTypeList
  - 146 • Status\_String datatype, codelist StatusTypeList
  - 147 • YMDHM\_DateTime datatype
- 148

149

150 **2.2.5 BidAvailability\_MarketDocument XML schema structure**



151  
 152

Generated by XMLSpy www.altova.com  
**Figure 3 – BidAvailability\_MarketDocument schema structure**

## 153 2.2.6 BidAvailability\_MarketDocument XML schema

154

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

156 urn:iec62325.351:tc57wg16:451-n:bidavailabilitydocument:1:0

```
157 <?xml version="1.0" encoding="utf-8"?>
158 <xs:schema xmlns:ecl="urn:entsoe.eu:wgedi:codelists"
159 xmlns="urn:iec62325.351:tc57wg16:451-n:bidavailabilitydocument:1:0"
160 xmlns:sawsdl="http://www.w3.org/ns/sawsdl"
161 xmlns:cimp="http://www.iec.ch/cimprofile"
162 xmlns:xs="http://www.w3.org/2001/XMLSchema"
163 targetNamespace="urn:iec62325.351:tc57wg16:451-n:bidavailabilitydocument:1:0"
164 elementFormDefault="qualified" attributeFormDefault="unqualified">
165   <xs:import namespace="urn:entsoe.eu:wgedi:codelists" schemaLocation="urn-
166 entsoe-eu-wgedi-codelists.xsd"/>
167   <xs:element name="BidAvailability_MarketDocument"
168 type="BidAvailability_MarketDocument"/>
169   <xs:simpleType name="ID_String"
170 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
171     <xs:restriction base="xs:string">
172       <xs:maxLength value="60"/>
173     </xs:restriction>
174   </xs:simpleType>
175   <xs:simpleType name="ESMPVersion_String"
176 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
177     <xs:restriction base="xs:string">
178       <xs:pattern value="[1-9]([0-9]){0,2}"/>
179     </xs:restriction>
180   </xs:simpleType>
181   <xs:simpleType name="MessageKind_String"
182 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
183     <xs:restriction base="ecl:MessageTypeList"/>
184   </xs:simpleType>
185   <xs:simpleType name="ProcessKind_String"
186 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
187     <xs:restriction base="ecl:ProcessTypeList"/>
188   </xs:simpleType>
189   <xs:simpleType name="PartyID_String-base"
190 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
191     <xs:restriction base="xs:string">
192       <xs:maxLength value="16"/>
193     </xs:restriction>
194   </xs:simpleType>
195   <xs:complexType name="PartyID_String"
196 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
197     <xs:simpleContent>
198       <xs:extension base="PartyID_String-base">
199         <xs:attribute name="codingScheme"
200 type="ecl:CodingSchemeTypeList" use="required"/>
201       </xs:extension>
202     </xs:simpleContent>
203   </xs:complexType>
204   <xs:simpleType name="MarketRoleKind_String"
205 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
206     <xs:restriction base="ecl:RoleTypeList"/>
207   </xs:simpleType>
208   <xs:simpleType name="ESMP_DateTime"
209 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#DateTime">
```

```

210         <xs:restriction base="xs:dateTime">
211             <xs:pattern value="((([0-9]{4})[\-](0[13578]|1[02])[\-](0[1-
212 9]|12)[0-9]|3[01])|([0-9]{4})[\-]((0[469])|(11))[\-](0[1-9]|12)[0-
213 9]|30))T((([01][0-9]|2[0-3]):[0-5][0-9]:[0-5][0-
214 9])Z)|(((13579)[26][02468][048]|13579[01345789](0)[48]|13579[01345789][2468][0
215 48]|02468[048][02468][048]|02468[1235679](0)[48]|02468[1235679][2468][048]|
216 0-9][0-9][13579][26])[\-](02)[\-](0[1-9]|1[0-9]|2[0-9])T((([01][0-9]|2[0-3]):[0-
217 5][0-9]:[0-5][0-
218 9])Z)|(((13579)[26][02468][1235679]|13579[01345789](0)[01235679]|13579[0134578
219 9][2468][1235679]|02468[048][02468][1235679]|02468[1235679](0)[01235679]|0246
220 8][1235679][2468][1235679]|0-9][0-9][13579][01345789])[\-](02)[\-](0[1-9]|1[0-
221 9]|2[0-8])T((([01][0-9]|2[0-3]):[0-5][0-9]:[0-5][0-9])Z)"/>
222         </xs:restriction>
223     </xs:simpleType>
224     <xs:simpleType name="Status_String"
225     sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
226         <xs:restriction base="ecl:StatusTypeList"/>
227     </xs:simpleType>
228     <xs:complexType name="Action_Status"
229     sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#Status">
230         <xs:sequence>
231             <xs:element name="value" type="Status_String" minOccurs="1"
232             maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
233             cim16#Status.value"/>
234         </xs:sequence>
235     </xs:complexType>
236     <xs:simpleType name="YMDHM_DateTime"
237     sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#DateTime">
238         <xs:restriction base="xs:string">
239             <xs:pattern value="((([0-9]{4})[\-](0[13578]|1[02])[\-](0[1-
240 9]|12)[0-9]|3[01])|([0-9]{4})[\-]((0[469])|(11))[\-](0[1-9]|12)[0-
241 9]|30))T((([01][0-9]|2[0-3]):[0-5][0-
242 9])Z)|(((13579)[26][02468][048]|13579[01345789](0)[48]|13579[01345789][2468][0
243 48]|02468[048][02468][048]|02468[1235679](0)[48]|02468[1235679][2468][048]|
244 0-9][0-9][13579][26])[\-](02)[\-](0[1-9]|1[0-9]|2[0-9])T((([01][0-9]|2[0-3]):[0-
245 5][0-
246 9])Z)|(((13579)[26][02468][1235679]|13579[01345789](0)[01235679]|13579[0134578
247 9][2468][1235679]|02468[048][02468][1235679]|02468[1235679](0)[01235679]|0246
248 8][1235679][2468][1235679]|0-9][0-9][13579][01345789])[\-](02)[\-](0[1-9]|1[0-
249 9]|2[0-8])T((([01][0-9]|2[0-3]):[0-5][0-9])Z)"/>
250         </xs:restriction>
251     </xs:simpleType>
252     <xs:complexType name="ESMP_DateTimeInterval"
253     sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#DateTimeInterval">
254         <xs:sequence>
255             <xs:element name="start" type="YMDHM_DateTime" minOccurs="1"
256             maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
257             cim16#DateTimeInterval.start"/>
258             <xs:element name="end" type="YMDHM_DateTime" minOccurs="1"
259             maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
260             cim16#DateTimeInterval.end"/>
261         </xs:sequence>
262     </xs:complexType>
263     <xs:complexType name="BidAvailability_MarketDocument"
264     sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#MarketDocument">
265         <xs:sequence>
266             <xs:element name="mRID" type="ID_String" minOccurs="1"
267             maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
268             cim16#IdentifiedObject.mRID"/>

```

```

269         <xs:element name="revisionNumber" type="ESMPVersion_String"
270 minOccurs="1" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-
271 schema-cim16#Document.revisionNumber"/>
272         <xs:element name="type" type="MessageKind_String" minOccurs="1"
273 maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
274 cim16#Document.type"/>
275         <xs:element name="process.processType"
276 type="ProcessKind_String" minOccurs="1" maxOccurs="1"
277 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
278 cim16#Process.processType"/>
279         <xs:element name="sender_MarketParticipant.mRID"
280 type="PartyID_String" minOccurs="1" maxOccurs="1"
281 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
282 cim16#IdentifiedObject.mRID"/>
283         <xs:element name="sender_MarketParticipant.marketRole.type"
284 type="MarketRoleKind_String" minOccurs="1" maxOccurs="1"
285 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#MarketRole.type"/>
286         <xs:element name="receiver_MarketParticipant.mRID"
287 type="PartyID_String" minOccurs="1" maxOccurs="1"
288 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
289 cim16#IdentifiedObject.mRID"/>
290         <xs:element name="receiver_MarketParticipant.marketRole.type"
291 type="MarketRoleKind_String" minOccurs="1" maxOccurs="1"
292 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#MarketRole.type"/>
293         <xs:element name="createdDateTime" type="ESMP_DateTime"
294 minOccurs="1" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-
295 schema-cim16#Document.createdDateTime"/>
296         <xs:element name="docStatus" type="Action_Status" minOccurs="0"
297 maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
298 cim16#Document.docStatus"/>
299         <xs:element name="time_Period.timeInterval"
300 type="ESMP_DateTimeInterval" minOccurs="1" maxOccurs="1"
301 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
302 cim16#Period.timeInterval"/>
303         <xs:element name="BidTimeSeries" type="BidTimeSeries"
304 minOccurs="1" maxOccurs="unbounded"
305 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
306 cim16#MarketDocument.BidTimeSeries"/>
307     </xs:sequence>
308 </xs:complexType>
309 <xs:simpleType name="BusinessKind_String"
310 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
311     <xs:restriction base="ecl:BusinessTypeList"/>
312 </xs:simpleType>
313 <xs:simpleType name="AreaID_String-base"
314 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
315     <xs:restriction base="xs:string">
316         <xs:maxLength value="18"/>
317     </xs:restriction>
318 </xs:simpleType>
319 <xs:complexType name="AreaID_String"
320 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
321     <xs:simpleContent>
322         <xs:extension base="AreaID_String-base">
323             <xs:attribute name="codingScheme"
324 type="ecl:CodingSchemeTypeList" use="required"/>
325         </xs:extension>
326     </xs:simpleContent>
327 </xs:complexType>
  
```



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328     <xs:simpleType name="MeasurementUnitKind_String"
329 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
330     <xs:restriction base="ecl:UnitOfMeasureTypeList"/>
331 </xs:simpleType>
332     <xs:complexType name="BidTimeSeries"
333 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#BidTimeSeries">
334     <xs:sequence>
335         <xs:element name="mRID" type="ID_String" minOccurs="1"
336 maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
337 cim16#IdentifiedObject.mRID"/>
338         <xs:element name="bidDocument_MarketDocument.mRID"
339 type="ID_String" minOccurs="1" maxOccurs="1"
340 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
341 cim16#IdentifiedObject.mRID"/>
342         <xs:element name="bidDocument_MarketDocument.revisionNumber"
343 type="ESMPVersion_String" minOccurs="1" maxOccurs="1"
344 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
345 cim16#Document.revisionNumber"/>
346         <xs:element name="requestingParty_MarketParticipant.mRID"
347 type="PartyID_String" minOccurs="1" maxOccurs="1"
348 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
349 cim16#IdentifiedObject.mRID"/>
350         <xs:element name="requestingParty_MarketParticipant.name"
351 type="xs:string" minOccurs="0" maxOccurs="1"
352 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
353 cim16#IdentifiedObject.name"/>
354         <xs:element
355 name="requestingParty_MarketParticipant.marketRole.type"
356 type="MarketRoleKind_String" minOccurs="1" maxOccurs="1"
357 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#MarketRole.type"/>
358         <xs:element name="businessType" type="BusinessKind_String"
359 minOccurs="1" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-
360 schema-cim16#TimeSeries.businessType"/>
361         <xs:element name="domain.mRID" type="AreaID_String"
362 minOccurs="1" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-
363 schema-cim16#IdentifiedObject.mRID"/>
364         <xs:element name="operationalLimit_Quantity.quantity"
365 type="xs:decimal" minOccurs="0" maxOccurs="1"
366 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
367 cim16#Quantity.quantity"/>
368         <xs:element name="limit_Measurement_Unit.name"
369 type="MeasurementUnitKind_String" minOccurs="0" maxOccurs="1"
370 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#Unit.name"/>
371         <xs:element name="RegisteredResource" type="RegisteredResource"
372 minOccurs="0" maxOccurs="unbounded"
373 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
374 cim16#BidTimeSeries.RegisteredResource"/>
375         <xs:element name="Reason" type="Reason" minOccurs="0"
376 maxOccurs="unbounded" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
377 cim16#BidTimeSeries.Reason"/>
378     </xs:sequence>
379 </xs:complexType>
380     <xs:simpleType name="ReasonCode_String"
381 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
382     <xs:restriction base="ecl:ReasonCodeTypeList"/>
383 </xs:simpleType>
384     <xs:simpleType name="ReasonText_String"
385 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
386     <xs:restriction base="xs:string">
387         <xs:maxLength value="512"/>

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388         </xs:restriction>
389     </xs:simpleType>
390     <xs:complexType name="Reason"
391 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#Reason">
392         <xs:sequence>
393             <xs:element name="code" type="ReasonCode_String" minOccurs="1"
394 maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
395 cim16#Reason.code"/>
396             <xs:element name="text" type="ReasonText_String" minOccurs="0"
397 maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
398 cim16#Reason.text"/>
399         </xs:sequence>
400     </xs:complexType>
401     <xs:simpleType name="ResourceID_String-base"
402 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
403         <xs:restriction base="xs:string">
404             <xs:maxLength value="60"/>
405         </xs:restriction>
406     </xs:simpleType>
407     <xs:complexType name="ResourceID_String"
408 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
409         <xs:simpleContent>
410             <xs:extension base="ResourceID_String-base">
411                 <xs:attribute name="codingScheme"
412 type="ecl:CodingSchemeTypeList" use="required"/>
413             </xs:extension>
414         </xs:simpleContent>
415     </xs:complexType>
416     <xs:complexType name="RegisteredResource"
417 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
418 cim16#RegisteredResource">
419         <xs:sequence>
420             <xs:element name="mRID" type="ResourceID_String" minOccurs="1"
421 maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
422 cim16#IdentifiedObject.mRID"/>
423         </xs:sequence>
424     </xs:complexType>
425 </xs:schema>
426
```