



European Network of  
Transmission System Operators  
for Electricity

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# CONFIRMATION DOCUMENT UML MODEL AND SCHEMA

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APPROVED DOCUMENT  
VERSION 1.2

2

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## Revision History

Version	Release	Date	Comments
1	0	2019-09-10	<p>Updates in schema 'iec62325-451-2-confirmation_v5_1':</p> <p>Optional connectingLine_RegisteredResource attribute added to the Imposed_TimeSeries and confirmed_TimeSeries class.</p> <p>mRID of Document, Series and Timeseries (ID_String type) was enlarged from 35 to 60 characters.</p> <p>MC approved.</p>
1	1	2021-01-27	<p>Updates in schema 'iec62325-451-2-confirmation_v5_2':</p> <p>Two new optional related_MarketDocument.mRID and related_MarketDocument.revisionNumber attributes are added to the Confirmation_MarketDocument class.</p> <p>Approved by MC.</p>
1	2	2022-02-01	<p>Updates in schema 'iec62325-451-2-confirmation_v5_3':</p> <p>measure_Unit.name attributes were renamed to measurement_Unit.name to be compliant with the ESMP.</p> <p>Approved by MC.</p>

66

67 **Objective**

68 The purpose of this document is to provide the contextual and assembly UML models and the  
69 schema of the Confirmation\_MarketDocument.

70 The schema of the Confirmation\_MarketDocument could be used in various business  
71 processes.

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

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

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

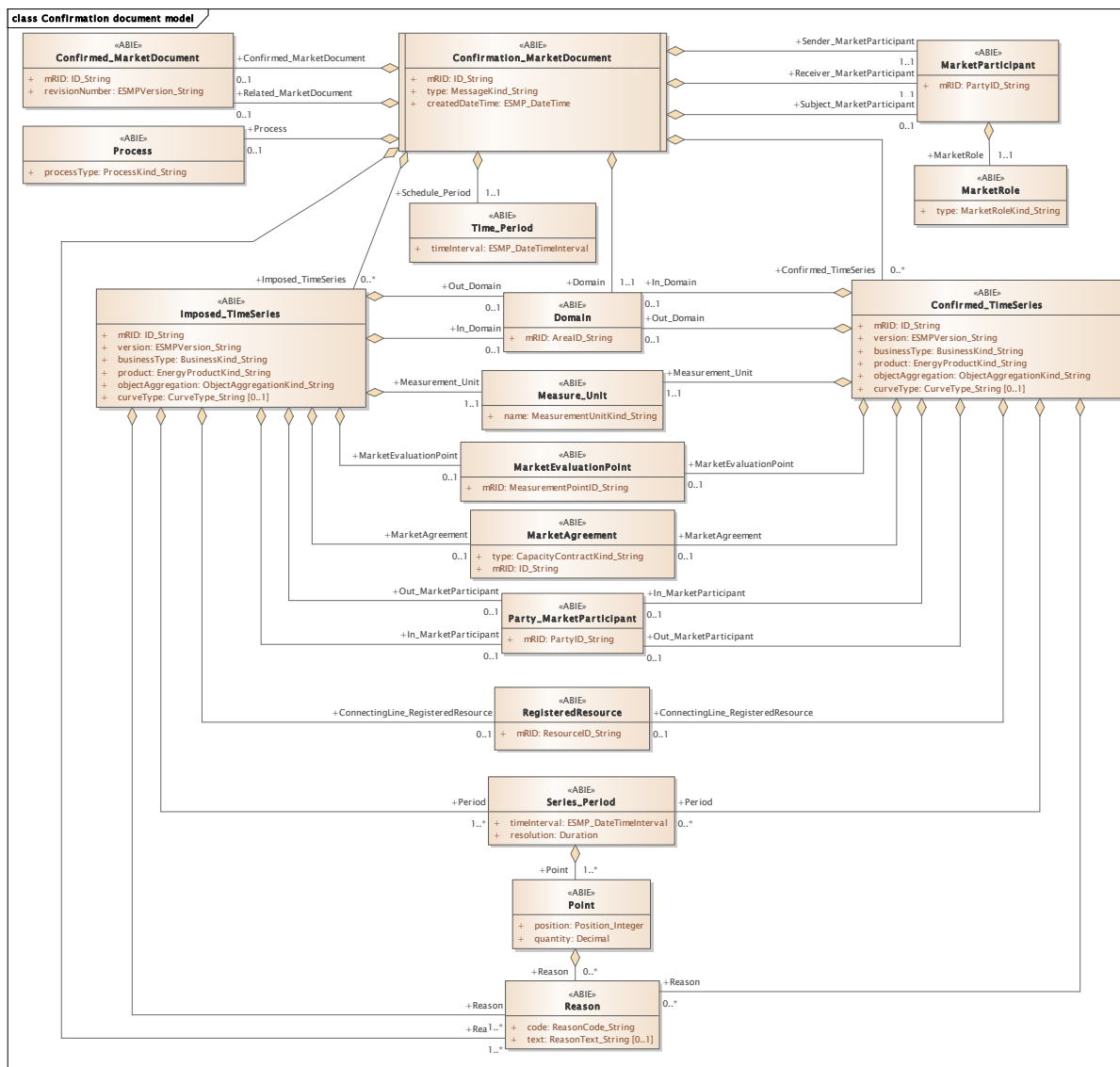
84

85 **Confirmation\_MarketDocument**

86 **2.1 Confirmation report contextual model**

87 **2.1.1 Overview of the model**

88 Figure 1 shows the model.



89

90

**Figure 1 - Confirmation report contextual model**

91

92 **2.1.2 IsBasedOn relationships from the European style market profile**

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

95

**Table 1 - IsBasedOn dependency**

Name	Complete IsBasedOn Path
Confirmation_MarketDocument	TC57CIM::IEC62325::MarketManagement::MarketDocument
Confirmed_MarketDocument	TC57CIM::IEC62325::MarketManagement::MarketDocument
Confirmed_TimeSeries	TC57CIM::IEC62325::MarketManagement::TimeSeries
Domain	TC57CIM::IEC62325::MarketManagement::Domain
Imposed_TimeSeries	TC57CIM::IEC62325::MarketManagement::TimeSeries
MarketAgreement	TC57CIM::IEC62325::MarketManagement::MarketAgreement
MarketEvaluationPoint	TC57CIM::IEC62325::MarketManagement::MarketEvaluationPoint
MarketParticipant	TC57CIM::IEC62325::MarketCommon::MarketParticipant
MarketRole	TC57CIM::IEC62325::MarketCommon::MarketRole
Measure_Unit	TC57CIM::IEC62325::MarketManagement::Unit
Party_MarketParticipant	TC57CIM::IEC62325::MarketCommon::MarketParticipant
Point	TC57CIM::IEC62325::MarketManagement::Point
Process	TC57CIM::IEC62325::MarketManagement::Process
Reason	TC57CIM::IEC62325::MarketManagement::Reason
RegisteredResource	TC57CIM::IEC62325::MarketCommon::RegisteredResource
Series_Period	TC57CIM::IEC62325::MarketManagement::Period
Time_Period	TC57CIM::IEC62325::MarketManagement::Period

96

97

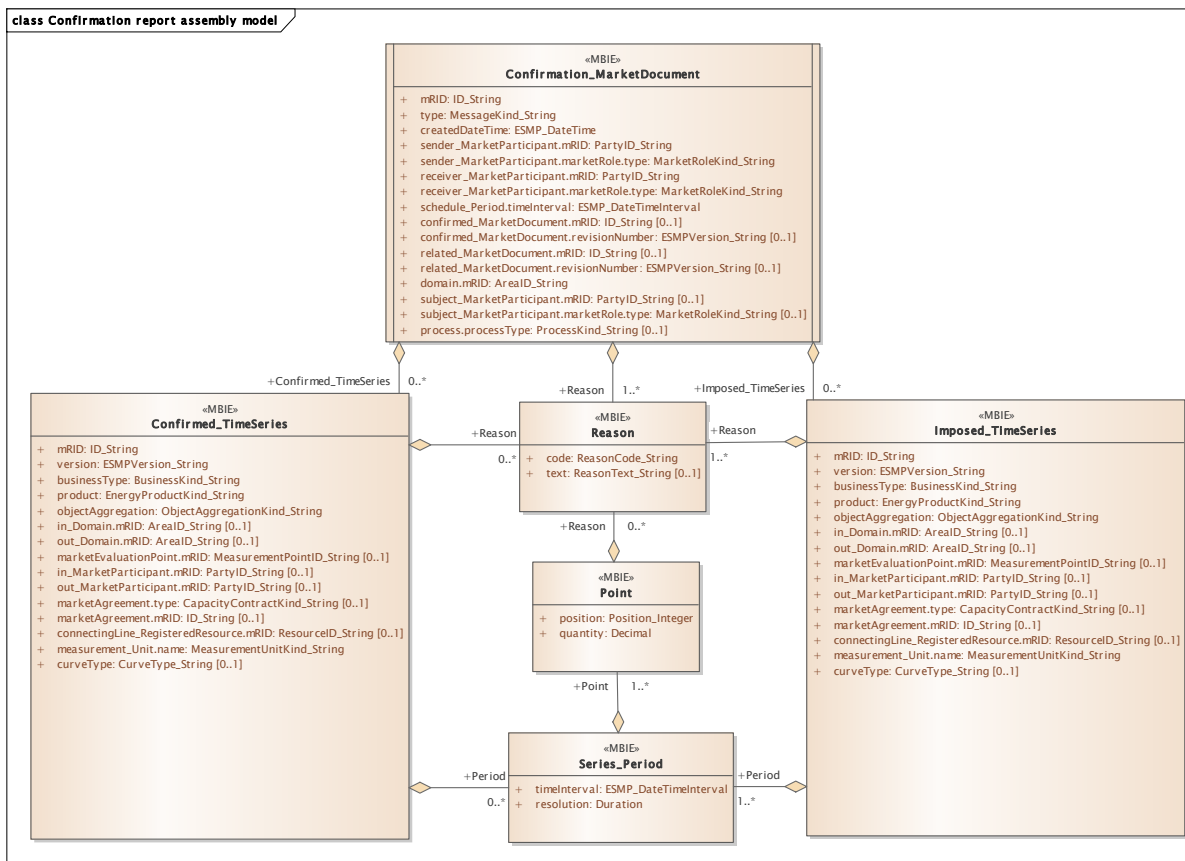


98

99 **2.2 Confirmation report assembly model**

100 **2.2.1 Overview of the model**

101 Figure 2 shows the model.



102

103

**Figure 2 - Confirmation report assembly model**

104

105

106 **2.2.2 IsBasedOn relationships from the European style market profile**

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

109

**Table 2 - IsBasedOn dependency**

Name	Complete IsBasedOn Path
Confirmation_MarketDocument	TC57CIM::IEC62325::MarketManagement::MarketDocument
Confirmed_TimeSeries	TC57CIM::IEC62325::MarketManagement::TimeSeries
Imposed_TimeSeries	TC57CIM::IEC62325::MarketManagement::TimeSeries
Point	TC57CIM::IEC62325::MarketManagement::Point
Reason	TC57CIM::IEC62325::MarketManagement::Reason
Series_Period	TC57CIM::IEC62325::MarketManagement::Period

110

111 **2.2.3 Detailed Confirmation report assembly model**

112 **2.2.3.1 Confirmation\_MarketDocument root class**

113 The confirmation report provides all the time series that have been provided in the schedule  
114 document for the schedule time interval in question. It may include one or several time series  
115 that the system operator has imposed on the market participant in compliance with market rules.

116 A confirmation report is generated once a cut-off time has been reached for the schedule time  
117 interval in question. At that point in time the total schedule is balanced and all outstanding  
118 discrepancies are noted.

119 Depending on market rules, apart from a final confirmation report that is produced after cutoff,  
120 intermediate confirmation reports may be generated. The cut-off time refers not only to daily or  
121 intra daily markets but also to the different markets that cover imbalance adjustments, reserve  
122 allocation, etc.

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

125 Table 3 shows all attributes of Confirmation\_MarketDocument.

126

**Table 3 - Attributes of Confirmation report assembly  
model::Confirmation\_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]	type MessageKind_String	The coded type of a document. The document type describes the principal characteristic of the document.
2	[1..1]	createdDateTime ESMP_DateTime	The date and time of the creation of the document.
3	[1..1]	sender_MarketParticipant.mRID PartyID_String	The identification of a party in the energy market. --- Document owner.

Order	mult.	Attribute name / Attribute type	Description
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]	schedule_Period.timeInterval ESMP_DateTimeInterval	The start and end date and time for a given interval. --- This information provides the beginning date and time and the ending date and time of the schedule period for which the confirmation report is being generated. The time interval that is associated with an electronic document and which is valid for the whole document.
8	[0..1]	confirmed_MarketDocument.mRID ID_String	The unique identification of the document being exchanged within a business process flow. --- The information about the document being confirmed.
9	[0..1]	confirmed_MarketDocument.revisionNumber ESMPVersion_String	The identification of the version that distinguishes one evolution of a document from another. --- The information about the document being confirmed.
10	[0..1]	related_MarketDocument.mRID ID_String	The unique identification of the document being exchanged within a business process flow. --- The identification of an electronic document that is related to an electronic document header.
11	[0..1]	related_MarketDocument.revisionNumber ESMPVersion_String	The identification of the version that distinguishes one evolution of a document from another. --- The identification of an electronic document that is related to an electronic document header.
12	[1..1]	domain.mRID AreaID_String	The unique identification of the domain. --- The identification of the domain that is covered in the document being confirmed. The Domain associated with an electronic document header.
13	[0..1]	subject_MarketParticipant.mRID PartyID_String	The identification of a party in the energy market. --- The party that is the subject within the document being confirmed.
14	[0..1]	subject_MarketParticipant.marketRole.type MarketRoleKind_String	The identification of the role played by a market player. --- The party that is the subject within the document being confirmed. --- The role associated with a MarketParticipant.
15	[0..1]	process.processType ProcessKind_String	The identification of the nature of process that the document addresses. --- The process defined in the document being confirmed.

128

129 Table 4 shows all association ends of Confirmation\_MarketDocument with other classes.

130  
131

**Table 4 - Association ends of Confirmation report assembly model::Confirmation\_MarketDocument with other classes**

Order	mult.	Class name / Role	Description
16	[1..*]	Reason Reason	The reason code provides the status of the differences and confirmation. If the schedule is fully accepted then there is simply a reason code (A06) at the header part of the report. For errors as many reason elements as necessary may be used. An example of reason codes could be: A06: Schedule accepted; A07: Schedule partially accepted; A08: Schedule rejected. The Reason associated with the electronic document header providing different motivations for the creation of the document. Association Based On: Confirmation report contextual model::Confirmation_MarketDocument.[] ----- Confirmation report contextual model::Reason.Reason[1..*]
17	[0..*]	Imposed_TimeSeries Imposed_TimeSeries	The time series that is associated with an electronic document. The content of the timeseries is imposed by the sender of this document to the receiver. Association Based On: Confirmation report contextual model::Confirmation_MarketDocument.[] ----- Confirmation report contextual model::Imposed_TimeSeries.Imposed_TimeSeries[0..*]
18	[0..*]	Confirmed_TimeSeries Confirmed_TimeSeries	The time series that is associated with an electronic document. Rhe content of the timeseries is what was transmitted; and the sender confirm the values in this timeseries. Association Based On: Confirmation report contextual model::Confirmation_MarketDocument.[] ----- Confirmation report contextual model::Confirmed_TimeSeries.Confirmed_TimeSeries[0..*]

132

### 133 2.2.3.2 Confirmed\_TimeSeries

134 This TimeSeries contains all the time series that are confirmed by the sender to the receiver.

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

136 Table 5 shows all attributes of Confirmed\_TimeSeries.

137 **Table 5 - Attributes of Confirmation report assembly model::Confirmed\_TimeSeries**

Order	mult.	Attribute name / Attribute type	Description
0	[1..1]	mRID ID_String	A unique identification of the time series.
1	[1..1]	version ESMPVersion_String	The identification of the version of the time series.
2	[1..1]	businessType BusinessKind_String	The identification of the nature of the time series.
3	[1..1]	product EnergyProductKind_String	The identification of the nature of an energy product such as power, energy, reactive power, etc.
4	[1..1]	objectAggregation ObjectAggregationKind_String	The identification of the domain that is the common denominator used to aggregate a time series.

Order	mult.	Attribute name / Attribute type	Description
5	[0..1]	in_Domain.mRID AreaID_String	The unique identification of the domain. --- The identification of the in area of the time series that has been confirmed by the system operator with the coding scheme used in the original transmission. The domain associated with a TimeSeries.
6	[0..1]	out_Domain.mRID AreaID_String	The unique identification of the domain. --- The identification of the out area of the time series that has been confirmed by the system operator with the coding scheme used in the original transmission. The domain associated with a TimeSeries.
7	[0..1]	marketEvaluationPoint.mRID MeasurementPointID_String	A unique identification of the measurement point. --- The identification of the location where one or more products are metered of the time series that has been confirmed by the system operator with the coding scheme used and sub-value if it was in the original transmission. The identification of a measurement point associated with a TimeSeries.
8	[0..1]	in_MarketParticipant.mRID PartyID_String	The identification of a party in the energy market. --- The identification of the party, which is putting the product into the area, of the time series that has been confirmed by the system operator with the coding scheme used in the original transmission. The identification of a market participant associated with a TimeSeries.
9	[0..1]	out_MarketParticipant.mRID PartyID_String	The identification of a party in the energy market. --- The identification of the party, which is taking the product out of the area, of the time series that has been confirmed by the system operator with the coding scheme used if it was in the original transmission. The identification of a market participant associated with a TimeSeries.
10	[0..1]	marketAgreement.type CapacityContractKind_String	The specification of the kind of the agreement, e.g. long term, daily contract. --- This information identifies the capacity agreement made between the parties for the sale or purchase of capacity. It corresponds to the information that has been confirmed by the system operator. The identification of an agreement associated with a time series.
11	[0..1]	marketAgreement.mRID ID_String	The unique identification of the agreement. --- This information identifies the capacity agreement made between the parties for the sale or purchase of capacity. It corresponds to the information that has been confirmed by the system operator. The identification of an agreement associated with a time series.
12	[0..1]	connectingLine_RegisteredResource.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. --- The identification of a resource associated with a TimeSeries.

Order	mult.	Attribute name / Attribute type	Description
13	[1..1]	measurement_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 confirmed time series is expressed. The unit of measure associated with the quantities in a TimeSeries.
14	[0..1]	curveType CurveType_String	The identification of the coded representation of the type of curve being described.

138

139 Table 6 shows all association ends of Confirmed\_TimeSeries with other classes.

140 **Table 6 - Association ends of Confirmation report assembly**  
141 **model::Confirmed\_TimeSeries with other classes**

Order	mult.	Class name / Role	Description
15	[0..*]	Series_Period Period	The time interval and resolution for a period associated with a TimeSeries. Association Based On: Confirmation report contextual model::Confirmed_TimeSeries.[] ----- Confirmation report contextual model::Series_Period.Period[0..*]
16	[0..*]	Reason Reason	The reason code provides the status of the differences and confirmation. For errors as many reason elements as necessary may be used. An example of reason codes could be: A20: Time series fully rejected; A26: Default time series applied; A30: Imposed Time series from nominated party's time series (party identified in reason text); A63: Time series modified. The reason information associated with a TimeSeries providing motivation information. Association Based On: Confirmation report contextual model::Confirmed_TimeSeries.[] ----- Confirmation report contextual model::Reason.Reason[0..*]

142

### 143 2.2.3.3 Imposed\_TimeSeries

144 A time series may be imposed by the system operator on the market participant in respect to  
145 specific market rules. For example, if market rules indicated that in case of mismatch one of  
146 the time series of a party would automatically be taken and imposed on the other party. Such a  
147 condition could occur if a market participant had a document that was rejected due to syntax  
148 errors and the document was never retransmit prior to cut-off. An imposed time series cannot  
149 be provided if an equivalent time series has already been accepted.

150 Note: If the quantity values of an already accepted time series were changed, it is not an  
151 imposed time series but a confirmed time series for instance with reason code A63 (modified  
152 time series).

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

154 Table 7 shows all attributes of Imposed\_TimeSeries.

**Table 7 - Attributes of Confirmation report assembly model::Imposed\_TimeSeries**

Order	mult.	Attribute name / Attribute type	Description
0	[1..1]	mRID ID_String	A unique identification of the time series.
1	[1..1]	version ESMPVersion_String	The identification of the version of the time series.
2	[1..1]	businessType BusinessKind_String	The identification of the nature of the time series.
3	[1..1]	product EnergyProductKind_String	The identification of the nature of an energy product such as power, energy, reactive power, etc.
4	[1..1]	objectAggregation ObjectAggregationKind_String	The identification of the domain that is the common denominator used to aggregate a time series.
5	[0..1]	in_Domain.mRID AreaID_String	The unique identification of the domain. --- The identification of the in area of the time series that has been imposed by the system operator with the coding scheme used in the original transmission. The domain associated with a TimeSeries.
6	[0..1]	out_Domain.mRID AreaID_String	The unique identification of the domain. --- The identification of the out area of the time series that has been imposed by the system operator with the coding scheme used in the original transmission. The domain associated with a TimeSeries.
7	[0..1]	marketEvaluationPoint.mRID MeasurementPointID_String	A unique identification of the measurement point. --- The identification of the location where one or more products are metered of the time series that has been imposed by the system operator with the coding scheme used and sub-value if it was in the original transmission. The identification of a measurement point associated with a TimeSeries.
8	[0..1]	in_MarketParticipant.mRID PartyID_String	The identification of a party in the energy market. --- The identification of the party, which is putting the product into the area, of the time series that has been imposed by the system operator with the coding scheme used in the original transmission. The identification of a market participant associated with a TimeSeries.
9	[0..1]	out_MarketParticipant.mRID PartyID_String	The identification of a party in the energy market. --- The identification of the party, which is taking the product out of the area, of the time series that has been imposed by the system operator with the coding scheme used if it was in the original transmission. The identification of a market participant associated with a TimeSeries.
10	[0..1]	marketAgreement.type CapacityContractKind_String	The specification of the kind of the agreement, e.g. long term, daily contract. --- This information identifies the capacity agreement made between the parties for the sale or purchase of capacity. It corresponds to the information that has been imposed by the system operator. The identification of an agreement associated with a time series.

Order	mult.	Attribute name / Attribute type	Description
11	[0..1]	marketAgreement.mRID ID_String	The unique identification of the agreement. --- This information identifies the capacity agreement made between the parties for the sale or purchase of capacity. It corresponds to the information that has been imposed by the system operator. The identification of an agreement associated with a time series.
12	[0..1]	connectingLine_RegisteredResource.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. --- The identification of a resource associated with a TimeSeries.
13	[1..1]	measurement_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 imposed time series is expressed. The unit of measure associated with the quantities in a TimeSeries.
14	[0..1]	curveType CurveType_String	The identification of the coded representation of the type of curve being described.

156

157 Table 8 shows all association ends of Imposed\_TimeSeries with other classes.

158 **Table 8 - Association ends of Confirmation report assembly**  
159 **model::Imposed\_TimeSeries with other classes**

Order	mult.	Class name / Role	Description
15	[1..*]	Series_Period Period	The time interval and resolution for a period associated with a TimeSeries. Association Based On: Confirmation report contextual model::Imposed_TimeSeries.[] ----- Confirmation report contextual model::Series_Period.Period[1..*]
16	[1..*]	Reason Reason	The reason code provides the status of the differences and confirmation. For errors as many reason elements as necessary may be used. An example of reason codes could be: A20: Time series fully rejected; A26: Default time series applied; A30: Imposed Time series from nominated party's time series (party identified in reason text); A63: Time series modified. The reason information associated with a TimeSeries providing motivation information. Association Based On: Confirmation report contextual model::Imposed_TimeSeries.[] ----- Confirmation report contextual model::Reason.Reason[1..*]

160



161 **2.2.3.4 Point**

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

163 Table 9 shows all attributes of Point.

164 **Table 9 - Attributes of Confirmation report 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 principal quantity identified for a point.

165

166 Table 10 shows all association ends of Point with other classes.

167 **Table 10 - Association ends of Confirmation report assembly model::Point with other classes**

168

Order	mult.	Class name / Role	Description
2	[0..*]	Reason Reason	The reason code provides the status of the differences and confirmation. For errors as many reason elements as necessary may be used. An example of reason codes could be: A43: Quantity increased; A44: Quantity decreased; A45: Default quantity applied. The Reason information associated with a Point providing motivation information. Association Based On: Confirmation report contextual model::Point.[] ----- Confirmation report contextual model::Reason.Reason[0..*]

169

170 **2.2.3.5 Reason**

171 The motivation of an act.

172 Table 11 shows all attributes of Reason.

173 **Table 11 - Attributes of Confirmation report assembly model::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.

174

175 **2.2.3.6 Series\_Period**

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

177 Table 12 shows all attributes of Series\_Period.

178 **Table 12 - Attributes of Confirmation report 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.

179

180 Table 13 shows all association ends of Series\_Period with other classes.

181 **Table 13 - Association ends of Confirmation report assembly model::Series\_Period with**  
182 **other classes**

Order	mult.	Class name / Role	Description
2	[1..*]	Point Point	The Point information associated with a given Series_Period.within a TimeSeries. Association Based On: Confirmation report contextual model::Series_Period.[] ----- Confirmation report contextual model::Point.Point[1..*]

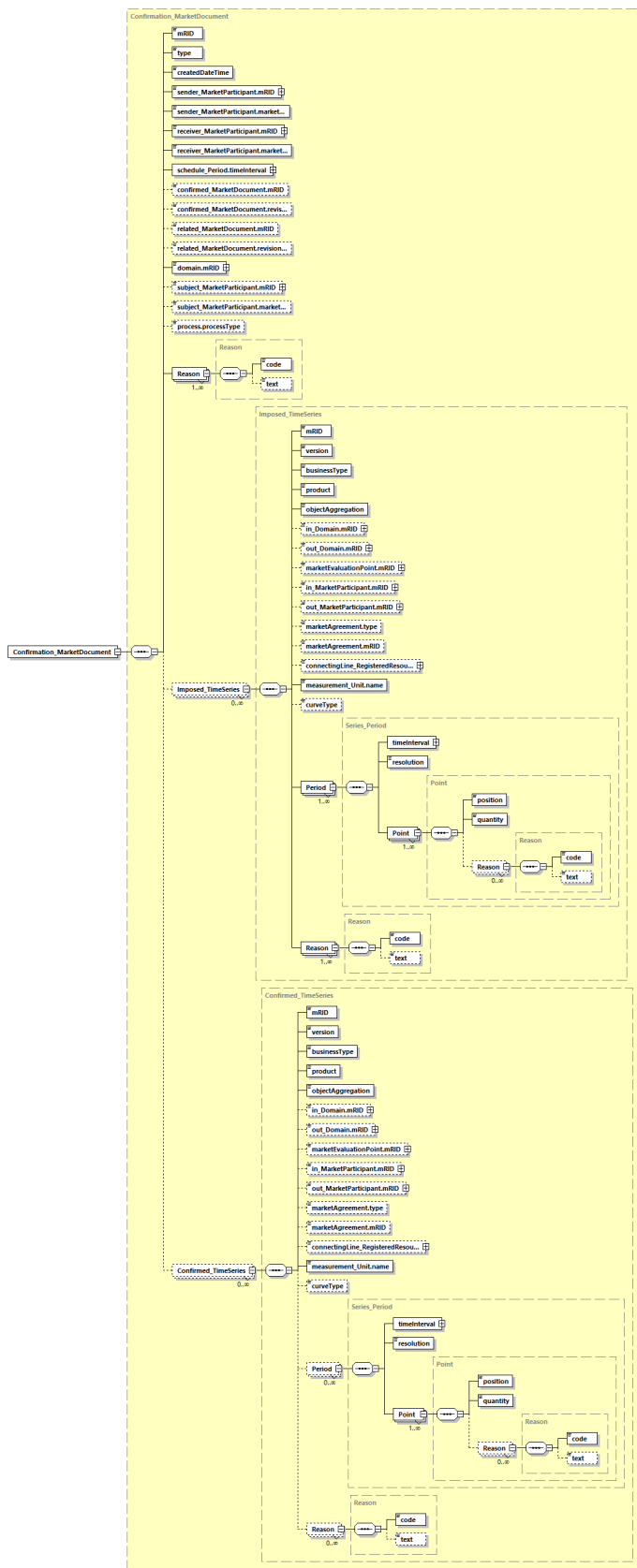
183

#### 184 2.2.4 Datatypes

185 The list of datatypes used for the Confirmation report assembly model is as follows:

- 186 • ESMP\_DateTimeInterval compound
- 187 • ArealD\_String datatype, codelist CodingSchemeTypeList
- 188 • BusinessKind\_String datatype, codelist BusinessTypeList
- 189 • CapacityContractKind\_String datatype, codelist ContractTypeList
- 190 • CurveType\_String datatype, codelist CurveTypeList
- 191 • EnergyProductKind\_String datatype, codelist EnergyProductTypeList
- 192 • ESMP\_DateTime datatype
- 193 • ESMPVersion\_String datatype
- 194 • ID\_String datatype
- 195 • MarketRoleKind\_String datatype, codelist RoleTypeList
- 196 • MeasurementPointID\_String datatype, codelist CodingSchemeTypeList
- 197 • MeasurementUnitKind\_String datatype, codelist UnitOfMeasureTypeList
- 198 • MessageKind\_String datatype, codelist MessageTypeList
- 199 • ObjectAggregationKind\_String datatype, codelist ObjectAggregationTypeList
- 200 • PartyID\_String datatype, codelist CodingSchemeTypeList
- 201 • Position\_Integer datatype
- 202 • ProcessKind\_String datatype, codelist ProcessTypeList
- 203 • ReasonCode\_String datatype, codelist ReasonCodeTypeList
- 204 • ReasonText\_String datatype
- 205 • ResourceID\_String datatype, codelist CodingSchemeTypeList
- 206 • YMDHM\_DateTime datatype
- 207

208 2.2.5 Confirmation\_MarketDocument XML schema structure



209  
 210

Figure 3 - Confirmation\_MarketDocument schema structure

## 211 2.2.6 Confirmation\_MarketDocument XML schema

212

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

214 urn:iec62325.351:tc57wg16:451-2:confirmationdocument:5:3

```

215 <?xml version="1.0" encoding="utf-8"?>
216 <xs:schema xmlns:ecl="urn:entsoe.eu:wgedi:codelists"
217 xmlns="urn:iec62325.351:tc57wg16:451-2:confirmationdocument:5:3"
218 xmlns:sawSDL="http://www.w3.org/ns/sawSDL"
219 xmlns:cimp="http://www.iec.ch/cimprofile"
220 xmlns:xs="http://www.w3.org/2001/XMLSchema"
221 targetNamespace="urn:iec62325.351:tc57wg16:451-2:confirmationdocument:5:3"
222 elementFormDefault="qualified" attributeFormDefault="unqualified">
223   <xs:import namespace="urn:entsoe.eu:wgedi:codelists" schemaLocation="urn-
224 entsoe-eu-wgedi-codelists.xsd"/>
225   <xs:element name="Confirmation_MarketDocument"
226 type="Confirmation_MarketDocument"/>
227   <xs:simpleType name="ID_String"
228 sawSDL:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
229     <xs:restriction base="xs:string">
230       <xs:maxLength value="60"/>
231     </xs:restriction>
232   </xs:simpleType>
233   <xs:simpleType name="MessageKind_String"
234 sawSDL:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
235     <xs:restriction base="ecl:MessageTypeList"/>
236   </xs:simpleType>
237   <xs:simpleType name="ESMP_DateTime"
238 sawSDL:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#DateTime">
239     <xs:restriction base="xs:dateTime">
240       <xs:pattern value="((([0-9]{4})[\-](0[13578]|1[02])[\-](0[1-
241 9]|[12][0-9]|3[01]))|([0-9]{4})[\-]((0[469])|(11))[\-](0[1-9]|[12][0-
242 9]|30))T(([01][0-9]|2[0-3]):[0-5][0-9]:[0-5][0-
243 9])Z)|(((13579)[26][02468][048]|13579)[01345789](0)[48]|13579)[01345789][2468][0
244 48]|02468)[048][02468][048]|02468)[1235679](0)[48]|02468)[1235679][2468][048]|
245 0-9][0-9][13579][26])[\-](02)[\-](0[1-9]|1[0-9]|2[0-9])T(([01][0-9]|2[0-3]):[0-
246 5][0-9]:[0-5][0-
247 9])Z)|(((13579)[26][02468][1235679]|13579)[01345789](0)[01235679]|13579)[0134578
248 9][2468][1235679]|02468)[048][02468][1235679]|02468)[1235679](0)[01235679]|0246
249 8)[1235679][2468][1235679]|0-9][0-9][13579][01345789])[\-](02)[\-](0[1-9]|1[0-
250 9]|2[0-8])T(([01][0-9]|2[0-3]):[0-5][0-9]:[0-5][0-9])Z)"/>
251     </xs:restriction>
252   </xs:simpleType>
253   <xs:simpleType name="PartyID_String-base"
254 sawSDL:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
255     <xs:restriction base="xs:string">
256       <xs:maxLength value="16"/>
257     </xs:restriction>
258   </xs:simpleType>
259   <xs:complexType name="PartyID_String"
260 sawSDL:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
261     <xs:simpleContent>
262       <xs:extension base="PartyID_String-base">
263         <xs:attribute name="codingScheme"
264 type="ecl:CodingSchemeTypeList" use="required"/>

```

```

265         </xs:extension>
266     </xs:simpleContent>
267 </xs:complexType>
268 <xs:simpleType name="MarketRoleKind_String"
269 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
270     <xs:restriction base="ecl:RoleTypeList"/>
271 </xs:simpleType>
272 <xs:simpleType name="ESMPVersion_String"
273 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
274     <xs:restriction base="xs:string">
275         <xs:pattern value="[1-9]([0-9]){0,2}"/>
276     </xs:restriction>
277 </xs:simpleType>
278 <xs:simpleType name="AreaID_String-base"
279 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
280     <xs:restriction base="xs:string">
281         <xs:maxLength value="18"/>
282     </xs:restriction>
283 </xs:simpleType>
284 <xs:complexType name="AreaID_String"
285 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
286     <xs:simpleContent>
287         <xs:extension base="AreaID_String-base">
288             <xs:attribute name="codingScheme"
289 type="ecl:CodingSchemeTypeList" use="required"/>
290         </xs:extension>
291     </xs:simpleContent>
292 </xs:complexType>
293 <xs:simpleType name="ProcessKind_String"
294 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
295     <xs:restriction base="ecl:ProcessTypeList"/>
296 </xs:simpleType>
297 <xs:simpleType name="YMDHM_DateTime"
298 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#DateTime">
299     <xs:restriction base="xs:string">
300         <xs:pattern value="((([0-9]{4})[\-](0[13578]|1[02])[\-](0[1-
301 9]|12)[0-9]|3[01])|([0-9]{4})[\-]((0[469])|(11))[\-](0[1-9]|12)[0-
302 9]|30)T(([01][0-9]|2[0-3]):[0-5][0-
303 9])Z|(([13579][26][02468][048]|13579][01345789](0)[48]|13579][01345789][2468][0
304 48]|02468][048][02468][048]|02468][1235679](0)[48]|02468][1235679][2468][048]|
305 0-9][0-9][13579][26])[\-](02)[\-](0[1-9]|1[0-9]|2[0-9])T(([01][0-9]|2[0-3]):[0-
306 5][0-
307 9])Z|(((13579)[26][02468][1235679]|13579][01345789](0)[01235679]|13579][0134578
308 9][2468][1235679]|02468][048][02468][1235679]|02468][1235679](0)[01235679]|0246
309 8][1235679][2468][1235679]|0-9][0-9][13579][01345789])[\-](02)[\-](0[1-9]|1[0-
310 9]|2[0-8])T(([01][0-9]|2[0-3]):[0-5][0-9])Z"/>
311     </xs:restriction>
312 </xs:simpleType>
313 <xs:complexType name="ESMP_DateTimeInterval"
314 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#DateTimeInterval">
315     <xs:sequence>
316         <xs:element name="start" type="YMDHM_DateTime" minOccurs="1"
317 maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
318 cim16#DateTimeInterval.start"/>
319         <xs:element name="end" type="YMDHM_DateTime" minOccurs="1"
320 maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
321 cim16#DateTimeInterval.end"/>

```

```

322         </xs:sequence>
323     </xs:complexType>
324     <xs:complexType name="Confirmation_MarketDocument"
325 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#MarketDocument">
326         <xs:sequence>
327             <xs:element name="mRID" type="ID_String" minOccurs="1"
328 maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
329 cim16#IdentifiedObject.mRID"/>
330             <xs:element name="type" type="MessageKind_String" minOccurs="1"
331 maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
332 cim16#Document.type"/>
333             <xs:element name="createdDateTime" type="ESMP_DateTime"
334 minOccurs="1" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-
335 schema-cim16#Document.createdDateTime"/>
336             <xs:element name="sender_MarketParticipant.mRID"
337 type="PartyID_String" minOccurs="1" maxOccurs="1"
338 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
339 cim16#IdentifiedObject.mRID"/>
340             <xs:element name="sender_MarketParticipant.marketRole.type"
341 type="MarketRoleKind_String" minOccurs="1" maxOccurs="1"
342 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#MarketRole.type"/>
343             <xs:element name="receiver_MarketParticipant.mRID"
344 type="PartyID_String" minOccurs="1" maxOccurs="1"
345 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
346 cim16#IdentifiedObject.mRID"/>
347             <xs:element name="receiver_MarketParticipant.marketRole.type"
348 type="MarketRoleKind_String" minOccurs="1" maxOccurs="1"
349 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#MarketRole.type"/>
350             <xs:element name="schedule_Period.timeInterval"
351 type="ESMP_DateTimeInterval" minOccurs="1" maxOccurs="1"
352 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
353 cim16#Period.timeInterval"/>
354             <xs:element name="confirmed_MarketDocument.mRID"
355 type="ID_String" minOccurs="0" maxOccurs="1"
356 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
357 cim16#IdentifiedObject.mRID"/>
358             <xs:element name="confirmed_MarketDocument.revisionNumber"
359 type="ESMPVersion_String" minOccurs="0" maxOccurs="1"
360 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
361 cim16#Document.revisionNumber"/>
362             <xs:element name="related_MarketDocument.mRID" type="ID_String"
363 minOccurs="0" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-
364 schema-cim16#IdentifiedObject.mRID"/>
365             <xs:element name="related_MarketDocument.revisionNumber"
366 type="ESMPVersion_String" minOccurs="0" maxOccurs="1"
367 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
368 cim16#Document.revisionNumber"/>
369             <xs:element name="domain.mRID" type="AreaID_String"
370 minOccurs="1" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-
371 schema-cim16#IdentifiedObject.mRID"/>
372             <xs:element name="subject_MarketParticipant.mRID"
373 type="PartyID_String" minOccurs="0" maxOccurs="1"
374 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
375 cim16#IdentifiedObject.mRID"/>
376             <xs:element name="subject_MarketParticipant.marketRole.type"
377 type="MarketRoleKind_String" minOccurs="0" maxOccurs="1"
378 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#MarketRole.type"/>

```

```

379         <xs:element name="process.processType"
380 type="ProcessKind_String" minOccurs="0" maxOccurs="1"
381 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
382 cim16#Process.processType"/>
383         <xs:element name="Reason" type="Reason" minOccurs="1"
384 maxOccurs="unbounded" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
385 cim16#MarketDocument.Reason"/>
386         <xs:element name="Imposed_TimeSeries" type="Imposed_TimeSeries"
387 minOccurs="0" maxOccurs="unbounded"
388 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
389 cim16#MarketDocument.Imposed_TimeSeries"/>
390         <xs:element name="Confirmed_TimeSeries"
391 type="Confirmed_TimeSeries" minOccurs="0" maxOccurs="unbounded"
392 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
393 cim16#MarketDocument.Confirmed_TimeSeries"/>
394     </xs:sequence>
395 </xs:complexType>
396 <xs:simpleType name="BusinessKind_String"
397 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
398     <xs:restriction base="ecl:BusinessTypeList"/>
399 </xs:simpleType>
400 <xs:simpleType name="EnergyProductKind_String"
401 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
402     <xs:restriction base="ecl:EnergyProductTypeList"/>
403 </xs:simpleType>
404 <xs:simpleType name="ObjectAggregationKind_String"
405 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
406     <xs:restriction base="ecl:ObjectAggregationTypeList"/>
407 </xs:simpleType>
408 <xs:simpleType name="MeasurementPointID_String-base"
409 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
410     <xs:restriction base="xs:string">
411         <xs:maxLength value="60"/>
412     </xs:restriction>
413 </xs:simpleType>
414 <xs:complexType name="MeasurementPointID_String"
415 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
416     <xs:simpleContent>
417         <xs:extension base="MeasurementPointID_String-base">
418             <xs:attribute name="codingScheme"
419 type="ecl:CodingSchemeTypeList" use="required"/>
420         </xs:extension>
421     </xs:simpleContent>
422 </xs:complexType>
423 <xs:simpleType name="CapacityContractKind_String"
424 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
425     <xs:restriction base="ecl:ContractTypeList"/>
426 </xs:simpleType>
427 <xs:simpleType name="ResourceID_String-base"
428 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
429     <xs:restriction base="xs:string">
430         <xs:maxLength value="60"/>
431     </xs:restriction>
432 </xs:simpleType>
433 <xs:complexType name="ResourceID_String"
434 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
435     <xs:simpleContent>

```

```

436         <xs:extension base="ResourceID_String-base">
437             <xs:attribute name="codingScheme"
438 type="ecl:CodingSchemeTypeList" use="required"/>
439         </xs:extension>
440     </xs:simpleContent>
441 </xs:complexType>
442 <xs:simpleType name="MeasurementUnitKind_String"
443 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
444     <xs:restriction base="ecl:UnitOfMeasureTypeList"/>
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="Confirmed_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="version" type="ESMPVersion_String"
457 minOccurs="1" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-
458 schema-cim16#TimeSeries.version"/>
459         <xs:element name="businessType" type="BusinessKind_String"
460 minOccurs="1" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-
461 schema-cim16#TimeSeries.businessType"/>
462         <xs:element name="product" type="EnergyProductKind_String"
463 minOccurs="1" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-
464 schema-cim16#TimeSeries.product"/>
465         <xs:element name="objectAggregation"
466 type="ObjectAggregationKind_String" minOccurs="1" maxOccurs="1"
467 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
468 cim16#TimeSeries.objectAggregation"/>
469         <xs:element name="in_Domain.mRID" type="AreaID_String"
470 minOccurs="0" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-
471 schema-cim16#IdentifiedObject.mRID"/>
472         <xs:element name="out_Domain.mRID" type="AreaID_String"
473 minOccurs="0" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-
474 schema-cim16#IdentifiedObject.mRID"/>
475         <xs:element name="marketEvaluationPoint.mRID"
476 type="MeasurementPointID_String" minOccurs="0" maxOccurs="1"
477 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
478 cim16#IdentifiedObject.mRID"/>
479         <xs:element name="in_MarketParticipant.mRID"
480 type="PartyID_String" minOccurs="0" maxOccurs="1"
481 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
482 cim16#IdentifiedObject.mRID"/>
483         <xs:element name="out_MarketParticipant.mRID"
484 type="PartyID_String" minOccurs="0" maxOccurs="1"
485 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
486 cim16#IdentifiedObject.mRID"/>
487         <xs:element name="marketAgreement.type"
488 type="CapacityContractKind_String" minOccurs="0" maxOccurs="1"
489 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#Document.type"/>
490         <xs:element name="marketAgreement.mRID" type="ID_String"
491 minOccurs="0" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-
492 schema-cim16#IdentifiedObject.mRID"/>

```



```

493         <xs:element name="connectingLine_RegisteredResource.mRID"
494 type="ResourceID_String" minOccurs="0" maxOccurs="1"
495 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
496 cim16#IdentifiedObject.mRID"/>
497         <xs:element name="measurement_Unit.name"
498 type="MeasurementUnitKind_String" minOccurs="1" maxOccurs="1"
499 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#Unit.name"/>
500         <xs:element name="curveType" type="CurveType_String"
501 minOccurs="0" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-
502 schema-cim16#TimeSeries.curveType"/>
503         <xs:element name="Period" type="Series_Period" minOccurs="0"
504 maxOccurs="unbounded" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
505 cim16#TimeSeries.Period"/>
506         <xs:element name="Reason" type="Reason" minOccurs="0"
507 maxOccurs="unbounded" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
508 cim16#TimeSeries.Reason"/>
509     </xs:sequence>
510 </xs:complexType>
511 <xs:complexType name="Imposed_TimeSeries"
512 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#TimeSeries">
513     <xs:sequence>
514         <xs:element name="mRID" type="ID_String" minOccurs="1"
515 maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
516 cim16#IdentifiedObject.mRID"/>
517         <xs:element name="version" type="ESMPVersion_String"
518 minOccurs="1" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-
519 schema-cim16#TimeSeries.version"/>
520         <xs:element name="businessType" type="BusinessKind_String"
521 minOccurs="1" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-
522 schema-cim16#TimeSeries.businessType"/>
523         <xs:element name="product" type="EnergyProductKind_String"
524 minOccurs="1" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-
525 schema-cim16#TimeSeries.product"/>
526         <xs:element name="objectAggregation"
527 type="ObjectAggregationKind_String" minOccurs="1" maxOccurs="1"
528 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
529 cim16#TimeSeries.objectAggregation"/>
530         <xs:element name="in_Domain.mRID" type="AreaID_String"
531 minOccurs="0" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-
532 schema-cim16#IdentifiedObject.mRID"/>
533         <xs:element name="out_Domain.mRID" type="AreaID_String"
534 minOccurs="0" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-
535 schema-cim16#IdentifiedObject.mRID"/>
536         <xs:element name="marketEvaluationPoint.mRID"
537 type="MeasurementPointID_String" minOccurs="0" maxOccurs="1"
538 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
539 cim16#IdentifiedObject.mRID"/>
540         <xs:element name="in_MarketParticipant.mRID"
541 type="PartyID_String" minOccurs="0" maxOccurs="1"
542 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
543 cim16#IdentifiedObject.mRID"/>
544         <xs:element name="out_MarketParticipant.mRID"
545 type="PartyID_String" minOccurs="0" maxOccurs="1"
546 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
547 cim16#IdentifiedObject.mRID"/>

```

```

548         <xs:element name="marketAgreement.type"
549 type="CapacityContractKind_String" minOccurs="0" maxOccurs="1"
550 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#Document.type"/>
551         <xs:element name="marketAgreement.mRID" type="ID_String"
552 minOccurs="0" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-
553 schema-cim16#IdentifiedObject.mRID"/>
554         <xs:element name="connectingLine_RegisteredResource.mRID"
555 type="ResourceID_String" minOccurs="0" maxOccurs="1"
556 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
557 cim16#IdentifiedObject.mRID"/>
558         <xs:element name="measurement_Unit.name"
559 type="MeasurementUnitKind_String" minOccurs="1" maxOccurs="1"
560 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#Unit.name"/>
561         <xs:element name="curveType" type="CurveType_String"
562 minOccurs="0" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-
563 schema-cim16#TimeSeries.curveType"/>
564         <xs:element name="Period" type="Series_Period" minOccurs="1"
565 maxOccurs="unbounded" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
566 cim16#TimeSeries.Period"/>
567         <xs:element name="Reason" type="Reason" minOccurs="1"
568 maxOccurs="unbounded" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
569 cim16#TimeSeries.Reason"/>
570     </xs:sequence>
571 </xs:complexType>
572 <xs:simpleType name="Position_Integer"
573 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#Integer">
574     <xs:restriction base="xs:integer">
575         <xs:maxInclusive value="999999"/>
576         <xs:minInclusive value="1"/>
577     </xs:restriction>
578 </xs:simpleType>
579 <xs:complexType name="Point"
580 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#Point">
581     <xs:sequence>
582         <xs:element name="position" type="Position_Integer"
583 minOccurs="1" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-
584 schema-cim16#Point.position"/>
585         <xs:element name="quantity" type="xs:decimal" minOccurs="1"
586 maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
587 cim16#Point.quantity"/>
588         <xs:element name="Reason" type="Reason" minOccurs="0"
589 maxOccurs="unbounded" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
590 cim16#Point.Reason"/>
591     </xs:sequence>
592 </xs:complexType>
593 <xs:simpleType name="ReasonCode_String"
594 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
595     <xs:restriction base="ecl:ReasonCodeTypeList"/>
596 </xs:simpleType>
597 <xs:simpleType name="ReasonText_String"
598 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
599     <xs:restriction base="xs:string">
600         <xs:maxLength value="512"/>
601     </xs:restriction>
602 </xs:simpleType>
603 <xs:complexType name="Reason"
604 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#Reason">

```

```
605         <xs:sequence>
606             <xs:element name="code" type="ReasonCode_String" minOccurs="1"
607 maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
608 cim16#Reason.code"/>
609             <xs:element name="text" type="ReasonText_String" minOccurs="0"
610 maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
611 cim16#Reason.text"/>
612         </xs:sequence>
613     </xs:complexType>
614     <xs:complexType name="Series_Period"
615 sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#Period">
616         <xs:sequence>
617             <xs:element name="timeInterval" type="ESMP_DateTimeInterval"
618 minOccurs="1" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-
619 schema-cim16#Period.timeInterval"/>
620             <xs:element name="resolution" type="xs:duration" minOccurs="1"
621 maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
622 cim16#Period.resolution"/>
623             <xs:element name="Point" type="Point" minOccurs="1"
624 maxOccurs="unbounded" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-
625 cim16#Period.Point"/>
626         </xs:sequence>
627     </xs:complexType>
628 </xs:schema>
629
```