European Network of
Transmission System Operators
for Electricity

EIC DOCUMENT
UML MODEL AND SCHEMA

2023-01-17
AGREED DOCUMENT
VERSION 1.1

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Revision History

Version	Release	Date	Comments
1	0	2021-09-15	First draft of the document. Updates in schema 'iec62325-451-n-eiccode_v1_1.xsd': • maxLength of VATCode_String type was enlarged to 25 characters. Approved by MC.
1	1	2024-01-17	Updates in schema 'iec62325-451-n-eiccode_v1_2.xsd': • Cardinality of function_Names changed from 0..* to 1..*. This is to avoid having EIC codes without any function assigned. • Long_Names.name maximum length enlarged from 70 to 100 characters. Agreed by CIM WG.

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1. Objective

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

The schema of the EIC_MarketDocument could be used in various business processes.

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

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

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

1.1. EIC document contextual model

1.1.1. Overview of the model

Figure 1 shows the model.

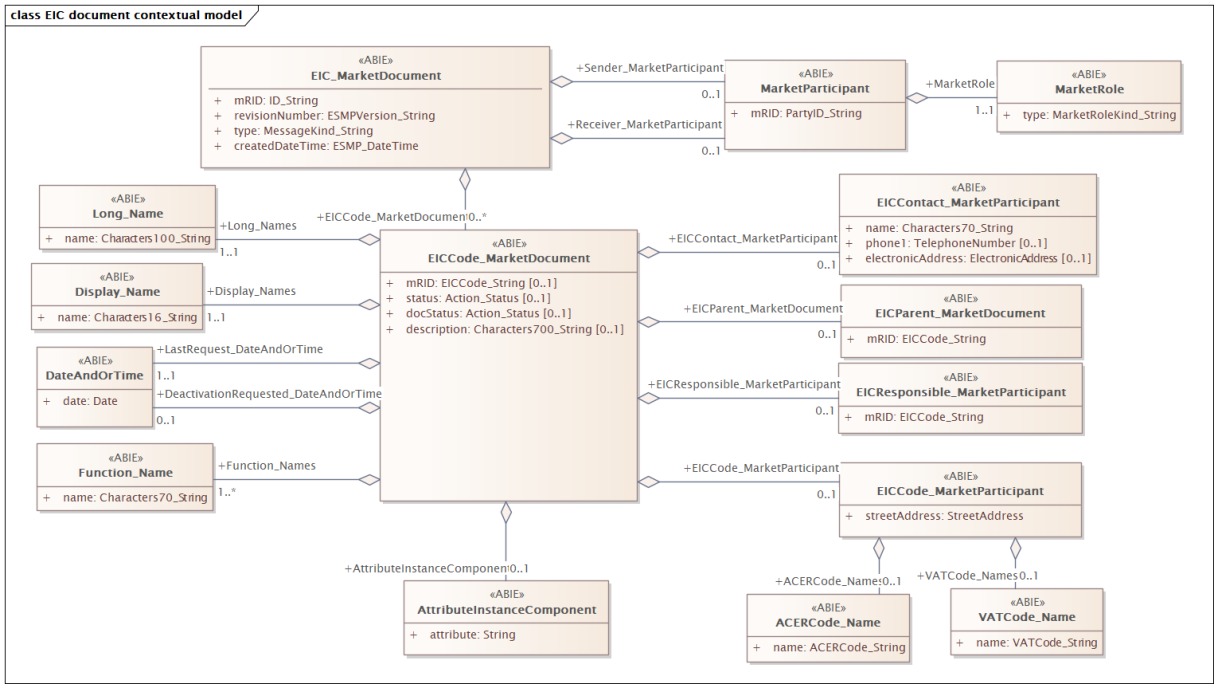

Figure 1 - EIC document contextual model

1.1.2. IsBasedOn relationships from the European style market profile

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

Table 1 - IsBasedOn dependency

Name	Complete IsBasedOn Path
ACERCode_Name	TC57CIM::IEC61970::Base::Core::Name
AttributeInstanceComponent	TC57CIM::Market::MarketManagement::AttributeInstanceComponent
DateAndOrTime	TC57CIM::Market::MarketManagement::DateAndOrTime
Display_Name	TC57CIM::IEC61970::Base::Core::Name
EIC_MarketDocument	TC57CIM::Market::MarketManagement::MarketDocument
EICCode_MarketDocument	TC57CIM::Market::MarketManagement::MarketDocument
EICCode_MarketParticipant	TC57CIM::Market::MarketCommon::MarketParticipant
EICContact_MarketParticipant	TC57CIM::Market::MarketCommon::MarketParticipant
EICParent_MarketDocument	TC57CIM::Market::MarketManagement::MarketDocument
EICResponsible_MarketParticipant	TC57CIM::Market::MarketCommon::MarketParticipant
Function_Name	TC57CIM::IEC61970::Base::Core::Name
Long_Name	TC57CIM::IEC61970::Base::Core::Name
MarketParticipant	TC57CIM::Market::MarketCommon::MarketParticipant
MarketRole	TC57CIM::Market::MarketCommon::MarketRole
VATCode_Name	TC57CIM::IEC61970::Base::Core::Name

1.2. EIC document assembly model

1.2.1. Overview of the model

Figure 2 shows the model.

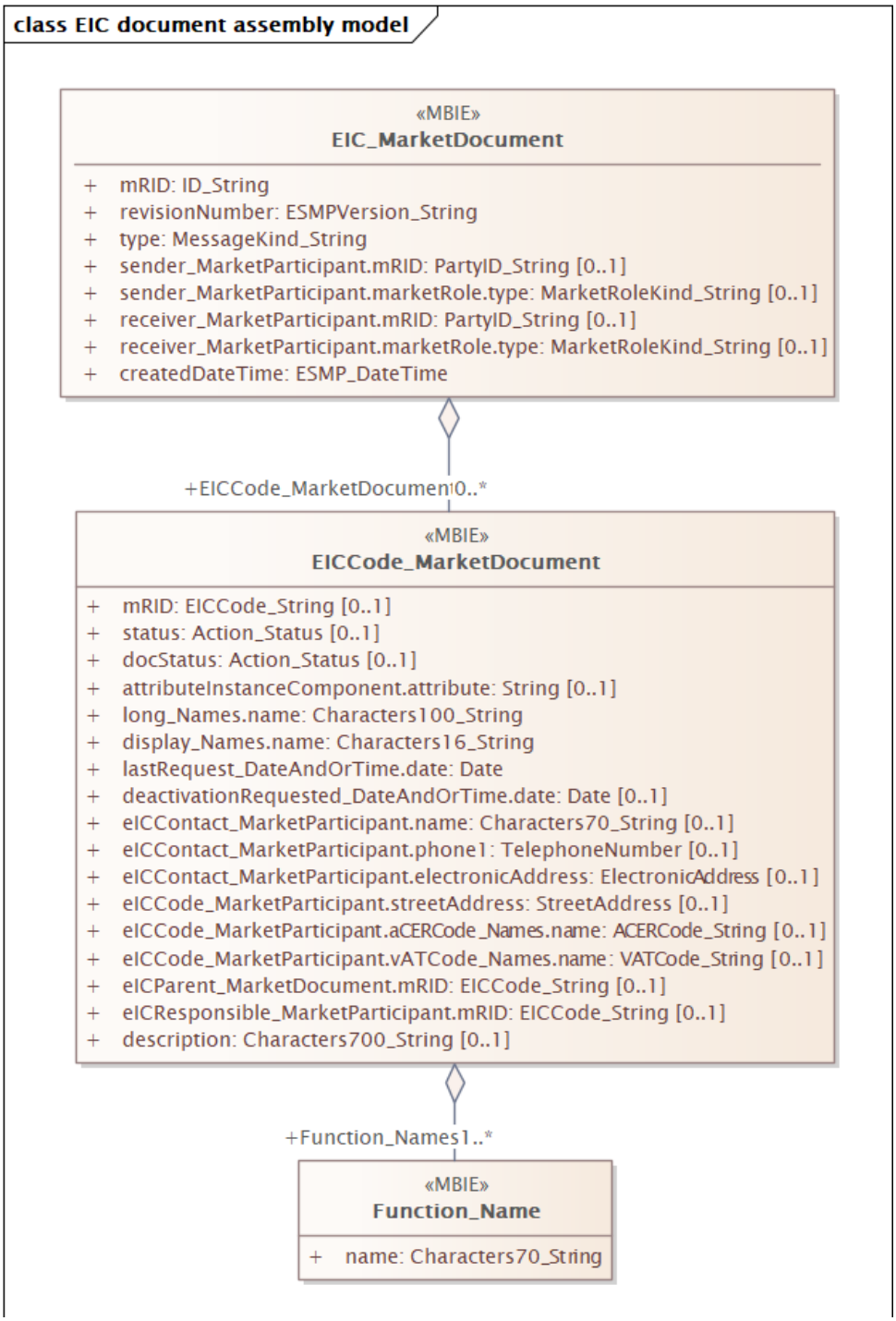

Figure 2 - EIC document assembly model

1.2.2. IsBasedOn relationships from the European style market profile

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

Table 2 - IsBasedOn dependency

Name	Complete IsBasedOn Path
EIC_MarketDocument	TC57CIM::Market::MarketManagement::MarketDocument
EICCode_MarketDocument	TC57CIM::Market::MarketManagement::MarketDocument
Function_Name	TC57CIM::IEC61970::Base::Core::Name

1.2.3. Detailed EIC document assembly model

1.2.3.1. EIC_MarketDocument root class

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

Table 3 shows all attributes of EIC_MarketDocument.

Table 3 - Attributes of EIC document assembly model::EIC_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	[0..1]	sender_MarketParticipant.mRID PartyID_String	The identification of a party in the energy market. --- The sender of the document.
4	[0..1]	sender_MarketParticipant.marketRole.type MarketRoleKind_String	The identification of the role played by a market player. --- The sender of the document.
5	[0..1]	receiver_MarketParticipant.mRID PartyID_String	The identification of a party in the energy market. --- The recipient of the document.
6	[0..1]	receiver_MarketParticipant.marketRole.type MarketRoleKind_String	The identification of the role played by a market player. --- The recipient of the document.
7	[1..1]	createdDateTime ESMP_DateTime	The date and time of the creation of the document.

Table 4 shows all association ends of EIC_MarketDocument with other classes.

Table 4 - Association ends of EIC document assembly model::EIC_MarketDocument with other classes

Order	mult.	Class name / Role	Description
8	[0..*]	EICCode_MarketDocument EICCode_MarketDocument	The information on the EIC code. Association Based On: EIC document contextual model::EICCode_MarketDocument.EICCode_MarketDocument[0..*] --- EIC document contextual model::EIC_MarketDocument.[]

1.2.3.2. EICCode_MarketDocument

A document describing the EIC code, which identification is provided in the mRID attribute.

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

Table 5 shows all attributes of EICCode_MarketDocument.

Table 5 - Attributes of EIC document assembly model::EICCode_MarketDocument

Order	mult.	Attribute name / Attribute type	Description
0	[0..1]	mRID EICCode_String	The EIC code that is managed in the process (creation, update, deactivation, reactivation, publication).
1	[0..1]	status Action_Status	The action requested to be carried out, e.g. creation of the EIC code, update, deactivation, reactivation. Status of subject matter (e.g., Agreement, Work) this document represents. For status of the document itself, use 'docStatus' attribute.
2	[0..1]	docStatus Action_Status	The status of the EIC code document, i.e. active or inactive. This status is for publication information. The identification of the condition or position of the document with regard to its standing.
3	[0..1]	attributeInstanceComponent.attribute String	The identification of an EIC code either as local EIC code or international EIC code in order to keep either locally or to send to the central registry. The identification of an attribute for a given request component. --- This attribute states if the EIC code is either a local EIC code or an international EIC code. The default value is that the EIC code is a local EIC code; thus "no value" attribute means that the code is a local EIC code.
4	[1..1]	long_Names.name Characters100_String	Any free text that name the object. --- The long name or the "full" name of the EIC party or object being identified by the EIC code.
5	[1..1]	display_Names.name Characters16_String	Any free text that name the object. --- The display name or short name to be used on displays.
6	[1..1]	lastRequest_DateAndOrTime.date Date	The date as "YYYY-MM-DD", which conforms with ISO 8601. --- Date of the request

Order	mult.	Attribute name / Attribute type	Description
7	[0..1]	deactivationRequested_DateAndOrTime.date Date	The date as "YYYY-MM-DD", which conforms with ISO 8601. --- Date when the deactivation will be done.
8	[0..1]	eICContact_MarketParticipant.name Characters70_String	The name is any free human readable and possibly non unique text naming the object. --- The information about the contact person for the EIC code.
9	[0..1]	eICContact_MarketParticipant.phone1 TelephoneNumber	Phone number. --- The information about the contact person for the EIC code.
10	[0..1]	eICContact_MarketParticipant.electronicAddress ElectronicAddress	Electronic address. --- The information about the contact person for the EIC code.
11	[0..1]	eICCode_MarketParticipant.streetAddress StreetAddress	Street address when the EIC code is the one of a market participant, i.e. company.. --- Additional information when the EIC code is the one of a market participant, such as company address, ACER code, VAT code.
12	[0..1]	eICCode_MarketParticipant.aCERCode_Names.name ACERCode_String	Any free text that name the object. The other codes that may be used to identify an entity. --- Additional information when the EIC code is the one of a market participant, such as company address, ACER code, VAT code. --- The ACER code associated to the EIC code of the market participant.
13	[0..1]	eICCode_MarketParticipant.vATCode_Names.name VATCode_String	Any free text that name the object. --- Additional information when the EIC code is the one of a market participant, such as company address, ACER code, VAT code. --- The VAT code associated with the EIC code of the market participant.
14	[0..1]	eICParent_MarketDocument.mRID EICCode_String	The identification of the parent for the EIC code (hierarchical description). For a market participant, the parent is the mother company. For the areas, the parent provides information about aggregation, e.g. a control block is composed of control areas, etc. --- The EIC code of the parent (market participant, area, resource object, etc.) of the EIC code.
15	[0..1]	eICResponsible_MarketParticipant.mRID EICCode_String	The identification of a party in the energy market. --- The party responsible of the object identified by the EIC code (mRID attribute).
16	[0..1]	description Characters700_String	The description of the EIC code. 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.

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112 Table 6 shows all association ends of EICCode_MarketDocument with other classes.

Table 6 - Association ends of EIC document assembly model::EICCode_MarketDocument with other classes

Order	mult.	Class name / Role	Description
17	[1..*]	Function_Name Function_Names	All names of this identified object. Association Based On: EIC document contextual model::Function_Name.Function_Names[1..*] ----- EIC document contextual model::EICCode_MarketDocument.[]

1.2.3.3. Function_Name

The Name class provides the means to define any number of human readable names for an object. A name is **not** to be used for defining inter-object relationships. For inter-object relationships instead use the object identification 'mRID'.

Table 7 shows all attributes of Function_Name.

Table 7 - Attributes of EIC document assembly model::Function_Name

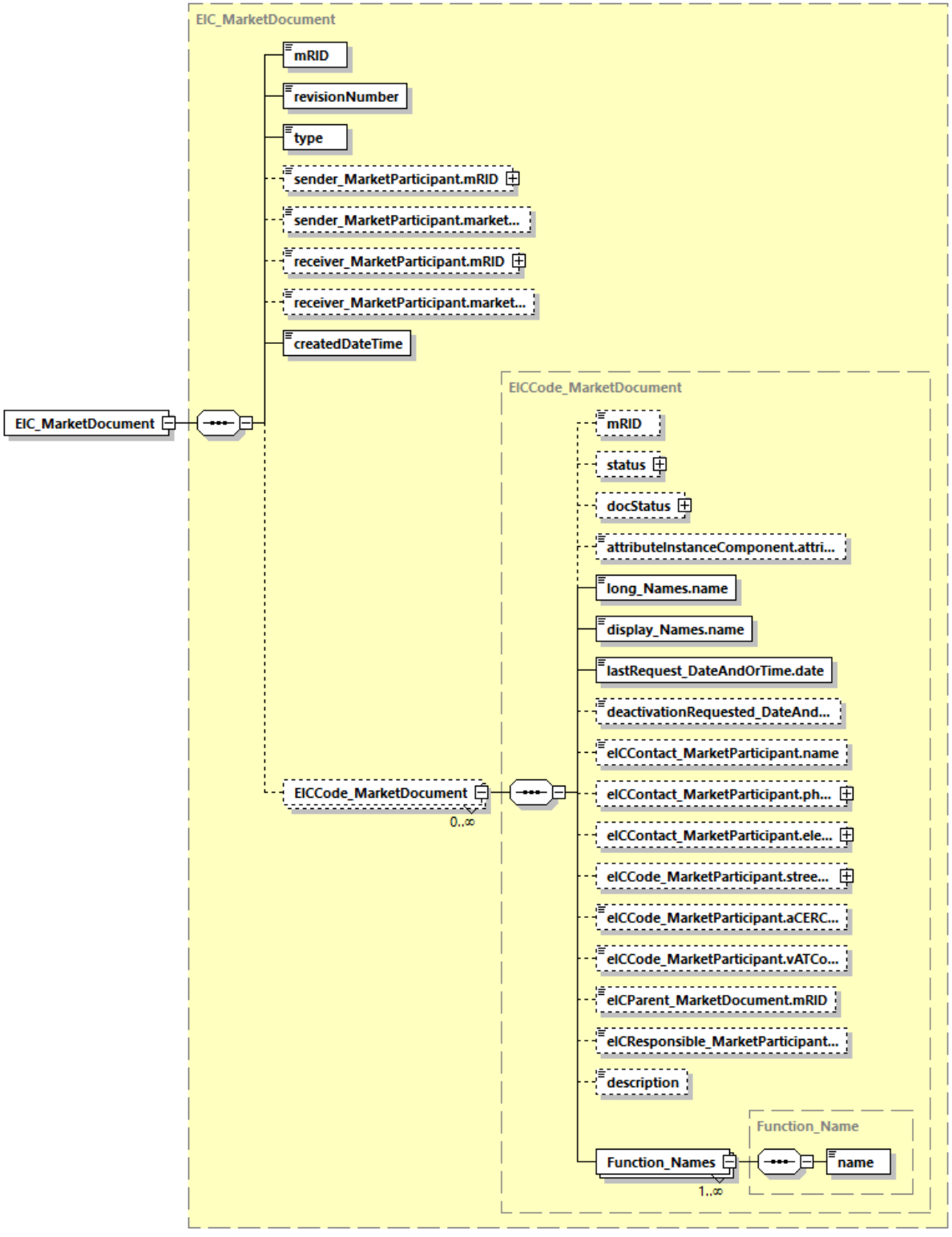
Order	mult.	Attribute name / Attribute type	Description
0	[1..1]	name Characters70_String	For the EIC code, the list of functions. Any free text that name the object.

1.2.4. Datatypes

The list of datatypes used for the EIC document assembly model is as follows:

- Action_Status compound
- ElectronicAddress compound
- StreetAddress compound
- StreetDetail compound
- TelephoneNumber compound
- TownDetail compound
- ACERCode_String datatype
- Characters10_String datatype
- Characters100_String datatype
- Characters15_String datatype
- Characters16_String datatype
- Characters2_String datatype
- Characters35_String datatype
- Characters70_String datatype
- Characters700_String datatype
- EICCode_String datatype
- ESMP_DateTime datatype
- ESMPVersion_String datatype
- ID_String datatype
- MarketRoleKind_String datatype, codelist RoleTypeList
- MessageKind_String datatype, codelist MessageTypeList
- PartyID_String datatype, codelist CodingSchemeTypeList
- Status_String datatype, codelist StatusTypeList
- VATCode_String datatype

149 **1.2.5. EIC_MarketDocument XML schema structure**



150
151 **Figure 3 - EIC_MarketDocument schema structure**

1.2.6. EIC_MarketDocument XML schema

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

urn:iec62325.351:tc57wg16:451-n:eicdocument:1:2

```
<?xml version="1.0" encoding="utf-8"?>
<xs:schema xmlns:ecl="urn:entsoe.eu:wgedi:codelists"
xmlns="urn:iec62325.351:tc57wg16:451-n:eicdocument:1:2"
xmlns:sawsdl="http://www.w3.org/ns/sawsdl"
xmlns:cimp="http://www.iec.ch/cimprofile"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
targetNamespace="urn:iec62325.351:tc57wg16:451-n:eicdocument:1:2"
elementFormDefault="qualified" attributeFormDefault="unqualified">
	<xs:import namespace="urn:entsoe.eu:wgedi:codelists" schemaLocation="urn-
entsoe-eu-wgedi-codelists.xsd"/>
	<xs:element name="EIC_MarketDocument" type="EIC_MarketDocument"/>
	<xs:simpleType name="ID_String" sawsdl:modelReference="
http://iec.ch/TC57/2013/CIM-schema-cim16#String">
		<xs:restriction base="xs:string">
			<xs:maxLength value="60"/>
		</xs:restriction>
	</xs:simpleType>
	<xs:simpleType name="ESMPVersion_String" sawsdl:modelReference="
http://iec.ch/TC57/2013/CIM-schema-cim16#String">
		<xs:restriction base="xs:string">
			<xs:pattern value="[1-9]([0-9]){0,2}"/>
		</xs:restriction>
	</xs:simpleType>
	<xs:simpleType name="MessageKind_String" sawsdl:modelReference="
http://iec.ch/TC57/2013/CIM-schema-cim16#String">
		<xs:restriction base="ecl:MessageTypeList"/>
	</xs:simpleType>
	<xs:simpleType name="PartyID_String-base" sawsdl:modelReference="
http://iec.ch/TC57/2013/CIM-schema-cim16#String">
		<xs:restriction base="xs:string">
			<xs:maxLength value="16"/>
		</xs:restriction>
	</xs:simpleType>
	<xs:complexType name="PartyID_String" sawsdl:modelReference="
http://iec.ch/TC57/2013/CIM-schema-cim16#String">
		<xs:simpleContent>
			<xs:extension base="PartyID_String-base">
				<xs:attribute name="codingScheme"
type="ecl:CodingSchemeTypeList" use="required"/>
			</xs:extension>
		</xs:simpleContent>
	</xs:complexType>
	<xs:simpleType name="MarketRoleKind_String" sawsdl:modelReference="
http://iec.ch/TC57/2013/CIM-schema-cim16#String">
		<xs:restriction base="ecl:RoleTypeList"/>
	</xs:simpleType>
	<xs:simpleType name="ESMP_DateTime" sawsdl:modelReference="
http://iec.ch/TC57/2013/CIM-schema-cim16#DateTime">
		<xs:restriction base="xs:dateTime">
```

```
205                     <xs:pattern value="((([0-9]{4})[\-](0[13578]|1[02])[\-](0[1-
206   9]|[12][0-9]|3[01])|([0-9]{4})[\-]((0[469])|(11))[\-](0[1-9]|[12][0-
207   9]|30))T(([01][0-9]|2[0-3]):[0-5][0-9]:[0-5][0-
208   9])Z)|(([13579][26][02468][048]|[13579][01345789](0)[48]|[13579][01345789][2468][0
209   48]|[02468][048][02468][048]|[02468][1235679](0)[48]|[02468][1235679][2468][048]|[
210   0-9][0-9][13579][26])[\-](02)[\-](0[1-9]|1[0-9]|2[0-9])T(([01][0-9]|2[0-3]):[0-
211   5][0-9]:[0-5][0-
212   9])Z)|(([13579][26][02468][1235679]|[13579][01345789](0)[01235679]|[13579][0134578
213   9][2468][1235679]|[02468][048][02468][1235679]|[02468][1235679](0)[01235679]|[0246
214   8][1235679][2468][1235679]|[0-9][0-9][13579][01345789])[\-](02)[\-](0[1-9]|1[0-
215   9]|2[0-8])T(([01][0-9]|2[0-3]):[0-5][0-9]:[0-5][0-9])Z)"/>
216               </xs:restriction>
217         </xs:simpleType>
218         <xs:complexType name="EIC_MarketDocument" sawsdl:modelReference="
219   http://iec.ch/TC57/2013/CIM-schema-cim16#MarketDocument">
220               <xs:sequence>
221                     <xs:element name="mRID" type="ID_String" minOccurs="1"
222   maxOccurs="1" sawsdl:modelReference=" http://iec.ch/TC57/2013/CIM-schema-
223   cim16#IdentifiedObject.mRID"/>
224                     <xs:element name="revisionNumber" type="ESMPVersion_String"
225   minOccurs="1" maxOccurs="1" sawsdl:modelReference=" http://iec.ch/TC57/2013/CIM-
226   schema-cim16#Document.revisionNumber"/>
227                     <xs:element name="type" type="MessageKind_String" minOccurs="1"
228   maxOccurs="1" sawsdl:modelReference=" http://iec.ch/TC57/2013/CIM-schema-
229   cim16#Document.type"/>
230                     <xs:element name="sender_MarketParticipant.mRID"
231   type="PartyID_String" minOccurs="0" maxOccurs="1" sawsdl:modelReference="
232   http://iec.ch/TC57/2013/CIM-schema-cim16#IdentifiedObject.mRID"/>
233                     <xs:element name="sender_MarketParticipant.marketRole.type"
234   type="MarketRoleKind_String" minOccurs="0" maxOccurs="1" sawsdl:modelReference="
235   http://iec.ch/TC57/2013/CIM-schema-cim16#MarketRole.type"/>
236                     <xs:element name="receiver_MarketParticipant.mRID"
237   type="PartyID_String" minOccurs="0" maxOccurs="1" sawsdl:modelReference="
238   http://iec.ch/TC57/2013/CIM-schema-cim16#IdentifiedObject.mRID"/>
239                     <xs:element name="receiver_MarketParticipant.marketRole.type"
240   type="MarketRoleKind_String" minOccurs="0" maxOccurs="1" sawsdl:modelReference="
241   http://iec.ch/TC57/2013/CIM-schema-cim16#MarketRole.type"/>
242                     <xs:element name="createdDateTime" type="ESMP_DateTime"
243   minOccurs="1" maxOccurs="1" sawsdl:modelReference=" http://iec.ch/TC57/2013/CIM-
244   schema-cim16#Document.createdDateTime"/>
245                     <xs:element name="EICCode_MarketDocument"
246   type="EICCode_MarketDocument" minOccurs="0" maxOccurs="unbounded"
247   sawsdl:modelReference=" http://iec.ch/TC57/2013/CIM-schema-
248   cim16#MarketDocument.EICCode_MarketDocument"/>
249               </xs:sequence>
250         </xs:complexType>
251         <xs:simpleType name="EICCode_String" sawsdl:modelReference="
252   http://iec.ch/TC57/2013/CIM-schema-cim16#String">
253               <xs:restriction base="xs:string">
254                     <xs:length value="16"/>
255                     <xs:pattern value="([A-Z0-9]{2}(([A-Z0-9]|[-]){13})[A-Z0-9])"/>
256               </xs:restriction>
257         </xs:simpleType>
258         <xs:simpleType name="Characters100_String" sawsdl:modelReference="
259   http://iec.ch/TC57/2013/CIM-schema-cim16#String">
260               <xs:restriction base="xs:string">
```

```
261                     <xs:maxLength value="100"/>
262               </xs:restriction>
263         </xs:simpleType>
264         <xs:simpleType name="Characters16_String" sawsdl:modelReference="
265   http://iec.ch/TC57/2013/CIM-schema-cim16#String">
266               <xs:restriction base="xs:string">
267                     <xs:maxLength value="16"/>
268                     <xs:pattern value="([A-Z\-\+_0-9]+)"/>
269               </xs:restriction>
270         </xs:simpleType>
271         <xs:simpleType name="Characters70_String" sawsdl:modelReference="
272   http://iec.ch/TC57/2013/CIM-schema-cim16#String">
273               <xs:restriction base="xs:string">
274                     <xs:maxLength value="70"/>
275               </xs:restriction>
276         </xs:simpleType>
277         <xs:simpleType name="ACERCode_String" sawsdl:modelReference="
278   http://iec.ch/TC57/2013/CIM-schema-cim16#String">
279               <xs:restriction base="xs:string">
280                     <xs:length value="12"/>
281                     <xs:pattern value="([A-Za-z0-9_]+\.[A-Z][A-Z])"/>
282               </xs:restriction>
283         </xs:simpleType>
284         <xs:simpleType name="VATCode_String" sawsdl:modelReference="
285   http://iec.ch/TC57/2013/CIM-schema-cim16#String">
286               <xs:restriction base="xs:string">
287                     <xs:maxLength value="25"/>
288                     <xs:pattern value="([A-Z0-9]+)"/>
289               </xs:restriction>
290         </xs:simpleType>
291         <xs:simpleType name="Characters700_String" sawsdl:modelReference="
292   http://iec.ch/TC57/2013/CIM-schema-cim16#String">
293               <xs:restriction base="xs:string">
294                     <xs:maxLength value="700"/>
295               </xs:restriction>
296         </xs:simpleType>
297         <xs:simpleType name="Status_String" sawsdl:modelReference="
298   http://iec.ch/TC57/2013/CIM-schema-cim16#String">
299               <xs:restriction base="ecl:StatusTypeList"/>
300         </xs:simpleType>
301         <xs:complexType name="Action_Status" sawsdl:modelReference="
302   http://iec.ch/TC57/2013/CIM-schema-cim16#Status">
303               <xs:sequence>
304                     <xs:element name="value" type="Status_String" minOccurs="1"
305   maxOccurs="1" sawsdl:modelReference=" http://iec.ch/TC57/2013/CIM-schema-
306   cim16#Status.value"/>
307               </xs:sequence>
308         </xs:complexType>
309         <xs:complexType name="StreetDetail" sawsdl:modelReference="
310   http://iec.ch/TC57/2013/CIM-schema-cim16#StreetDetail">
311               <xs:sequence>
312                     <xs:element name="addressGeneral" type="Characters70_String"
313   minOccurs="0" maxOccurs="1" sawsdl:modelReference=" http://iec.ch/TC57/2013/CIM-
314   schema-cim16#StreetDetail.addressGeneral"/>
```

```
315                     <xs:element name="addressGeneral2" type="Characters70_String"
316   minOccurs="0" maxOccurs="1" sawsdl:modelReference=" http://iec.ch/TC57/2013/CIM-
317   schema-cim16#StreetDetail.addressGeneral2"/>
318                     <xs:element name="addressGeneral3" type="Characters70_String"
319   minOccurs="0" maxOccurs="1" sawsdl:modelReference=" http://iec.ch/TC57/2013/CIM-
320   schema-cim16#StreetDetail.addressGeneral3"/>
321                     <xs:element name="floorIdentification" type="xs:string"
322   minOccurs="0" maxOccurs="1"/>
323               </xs:sequence>
324         </xs:complexType>
325         <xs:simpleType name="Characters10_String" sawsdl:modelReference="
326   http://iec.ch/TC57/2013/CIM-schema-cim16#String">
327               <xs:restriction base="xs:string">
328                     <xs:maxLength value="10"/>
329               </xs:restriction>
330         </xs:simpleType>
331         <xs:simpleType name="Characters35_String" sawsdl:modelReference="
332   http://iec.ch/TC57/2013/CIM-schema-cim16#String">
333               <xs:restriction base="xs:string">
334                     <xs:maxLength value="35"/>
335               </xs:restriction>
336         </xs:simpleType>
337         <xs:simpleType name="Characters2_String" sawsdl:modelReference="
338   http://iec.ch/TC57/2013/CIM-schema-cim16#String">
339               <xs:restriction base="xs:string">
340                     <xs:length value="2"/>
341                     <xs:pattern value="[A-Z]*"/>
342               </xs:restriction>
343         </xs:simpleType>
344         <xs:complexType name="TownDetail" sawsdl:modelReference="
345   http://iec.ch/TC57/2013/CIM-schema-cim16#TownDetail">
346               <xs:sequence>
347                     <xs:element name="name" type="Characters35_String"
348   minOccurs="1" maxOccurs="1" sawsdl:modelReference=" http://iec.ch/TC57/2013/CIM-
349   schema-cim16#TownDetail.name"/>
350                     <xs:element name="country" type="Characters2_String"
351   minOccurs="1" maxOccurs="1" sawsdl:modelReference=" http://iec.ch/TC57/2013/CIM-
352   schema-cim16#TownDetail.country"/>
353               </xs:sequence>
354         </xs:complexType>
355         <xs:complexType name="StreetAddress" sawsdl:modelReference="
356   http://iec.ch/TC57/2013/CIM-schema-cim16#StreetAddress">
357               <xs:sequence>
358                     <xs:element name="streetDetail" type="StreetDetail"
359   minOccurs="1" maxOccurs="1" sawsdl:modelReference=" http://iec.ch/TC57/2013/CIM-
360   schema-cim16#StreetAddress.streetDetail"/>
361                     <xs:element name="postalCode" type="Characters10_String"
362   minOccurs="1" maxOccurs="1" sawsdl:modelReference=" http://iec.ch/TC57/2013/CIM-
363   schema-cim16#StreetAddress.postalCode"/>
364                     <xs:element name="townDetail" type="TownDetail" minOccurs="1"
365   maxOccurs="1" sawsdl:modelReference=" http://iec.ch/TC57/2013/CIM-schema-
366   cim16#StreetAddress.townDetail"/>
367                     <xs:element name="language" type="xs:string" minOccurs="0"
368   maxOccurs="1"/>
369               </xs:sequence>
370         </xs:complexType>
```

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371         <xs:complexType name="ElectronicAddress" sawsdl:modelReference="
372   http://iec.ch/TC57/2013/CIM-schema-cim16#ElectronicAddress">
373               <xs:sequence>
374                     <xs:element name="email1" type="Characters70_String"
375   minOccurs="1" maxOccurs="1" sawsdl:modelReference=" http://iec.ch/TC57/2013/CIM-
376   schema-cim16#ElectronicAddress.email1"/>
377               </xs:sequence>
378         </xs:complexType>
379         <xs:simpleType name="Characters15_String" sawsdl:modelReference="
380   http://iec.ch/TC57/2013/CIM-schema-cim16#String">
381               <xs:restriction base="xs:string">
382                     <xs:maxLength value="15"/>
383               </xs:restriction>
384         </xs:simpleType>
385         <xs:complexType name="TelephoneNumber" sawsdl:modelReference="
386   http://iec.ch/TC57/2013/CIM-schema-cim16#TelephoneNumber">
387               <xs:sequence>
388                     <xs:element name="ituPhone" type="Characters15_String"
389   minOccurs="1" maxOccurs="1" sawsdl:modelReference=" http://iec.ch/TC57/2013/CIM-
390   schema-cim16#TelephoneNumber.ituPhone"/>
391               </xs:sequence>
392         </xs:complexType>
393         <xs:complexType name="EICCode_MarketDocument" sawsdl:modelReference="
394   http://iec.ch/TC57/2013/CIM-schema-cim16#MarketDocument">
395               <xs:sequence>
396                     <xs:element name="mRID" type="EICCode_String" minOccurs="0"
397   maxOccurs="1" sawsdl:modelReference=" http://iec.ch/TC57/2013/CIM-schema-
398   cim16#IdentifiedObject.mRID"/>
399                     <xs:element name="status" type="Action_Status" minOccurs="0"
400   maxOccurs="1" sawsdl:modelReference=" http://iec.ch/TC57/2013/CIM-schema-
401   cim16#Document.status"/>
402                     <xs:element name="docStatus" type="Action_Status" minOccurs="0"
403   maxOccurs="1" sawsdl:modelReference=" http://iec.ch/TC57/2013/CIM-schema-
404   cim16#Document.docStatus"/>
405                     <xs:element name="attributeInstanceComponent.attribute"
406   type="xs:string" minOccurs="0" maxOccurs="1" sawsdl:modelReference="
407   http://iec.ch/TC57/2013/CIM-schema-cim16#AttributeInstanceComponent.attribute"/>
408                     <xs:element name="long_Names.name" type="Characters100_String"
409   minOccurs="1" maxOccurs="1" sawsdl:modelReference=" http://iec.ch/TC57/2013/CIM-
410   schema-cim16#Name.name"/>
411                     <xs:element name="display_Names.name"
412   type="Characters16_String" minOccurs="1" maxOccurs="1" sawsdl:modelReference="
413   http://iec.ch/TC57/2013/CIM-schema-cim16#Name.name"/>
414                     <xs:element name="lastRequest_DateAndOrTime.date"
415   type="xs:date" minOccurs="1" maxOccurs="1" sawsdl:modelReference="
416   http://iec.ch/TC57/2013/CIM-schema-cim16#DateAndOrTime.date"/>
417                     <xs:element name="deactivationRequested_DateAndOrTime.date"
418   type="xs:date" minOccurs="0" maxOccurs="1" sawsdl:modelReference="
419   http://iec.ch/TC57/2013/CIM-schema-cim16#DateAndOrTime.date"/>
420                     <xs:element name="eICContact_MarketParticipant.name"
421   type="Characters70_String" minOccurs="0" maxOccurs="1" sawsdl:modelReference="
422   http://iec.ch/TC57/2013/CIM-schema-cim16#IdentifiedObject.name"/>
423                     <xs:element name="eICContact_MarketParticipant.phone1"
424   type="TelephoneNumber" minOccurs="0" maxOccurs="1" sawsdl:modelReference="
425   http://iec.ch/TC57/2013/CIM-schema-cim16#Organisation.phone1"/>
```

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426                     <xs:element
427   name="eICContact_MarketParticipant.electronicAddress" type="ElectronicAddress"
428   minOccurs="0" maxOccurs="1" sawsdl:modelReference=" http://iec.ch/TC57/2013/CIM-
429   schema-cim16#Organisation.electronicAddress"/>
430                     <xs:element name="eICCode_MarketParticipant.streetAddress"
431   type="StreetAddress" minOccurs="0" maxOccurs="1" sawsdl:modelReference="
432   http://iec.ch/TC57/2013/CIM-schema-cim16#Organisation.streetAddress"/>
433                     <xs:element
434   name="eICCode_MarketParticipant.aCERCode_Names.name" type="ACERCode_String"
435   minOccurs="0" maxOccurs="1" sawsdl:modelReference=" http://iec.ch/TC57/2013/CIM-
436   schema-cim16#Name.name"/>
437                     <xs:element name="eICCode_MarketParticipant.vATCode_Names.name"
438   type="VATCode_String" minOccurs="0" maxOccurs="1" sawsdl:modelReference="
439   http://iec.ch/TC57/2013/CIM-schema-cim16#Name.name"/>
440                     <xs:element name="eICParent_MarketDocument.mRID"
441   type="EICCode_String" minOccurs="0" maxOccurs="1" sawsdl:modelReference="
442   http://iec.ch/TC57/2013/CIM-schema-cim16#IdentifiedObject.mRID"/>
443                     <xs:element name="eICResponsible_MarketParticipant.mRID"
444   type="EICCode_String" minOccurs="0" maxOccurs="1" sawsdl:modelReference="
445   http://iec.ch/TC57/2013/CIM-schema-cim16#IdentifiedObject.mRID"/>
446                     <xs:element name="description" type="Characters700_String"
447   minOccurs="0" maxOccurs="1" sawsdl:modelReference=" http://iec.ch/TC57/2013/CIM-
448   schema-cim16#IdentifiedObject.description"/>
449                     <xs:element name="Function_Names" type="Function_Name"
450   minOccurs="1" maxOccurs="unbounded" sawsdl:modelReference="
451   http://iec.ch/TC57/2013/CIM-schema-cim16#MarketDocument.Function_Names"/>
452               </xs:sequence>
453         </xs:complexType>
454         <xs:complexType name="Function_Name" sawsdl:modelReference="
455   http://iec.ch/TC57/2013/CIM-schema-cim16#Name">
456               <xs:sequence>
457                     <xs:element name="name" type="Characters70_String"
458   minOccurs="1" maxOccurs="1" sawsdl:modelReference=" http://iec.ch/TC57/2013/CIM-
459   schema-cim16#Name.name"/>
460               </xs:sequence>
461         </xs:complexType>
462   </xs:schema>
463
```