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Maintenance notice:

This document is maintained by the ENTSO-E CIM EG. Comments or remarks are to be provided at cim@entso.eu
Revision History

<table>
<thead>
<tr>
<th>Version</th>
<th>Release</th>
<th>Date</th>
<th>Comments</th>
</tr>
</thead>
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<tr>
<td>0</td>
<td>0</td>
<td>2017-01-19</td>
<td>First drafting of the document.</td>
</tr>
<tr>
<td>1</td>
<td>0</td>
<td>2017-01-30</td>
<td>Version to be submitted to Market Committee following WG EDI meeting in March 2017.</td>
</tr>
</tbody>
</table>
| 2       | 0       | 2018-03-08 | Approved by MC.  
XSD version 4.0:  
Add new attributes:  
- MarketProduct  
- AllocationDecision  
- UnavailableQuantity  
Added two new relations between TimeSeries and MarketProduct |
| 2       | 1       | 2019-09-10 | XSD version 4.1:  
- controlArea_Domain.mRID in Balancing_MarketDocument class changed to area_Domain.mRID  
- mRID of Document, Series and Timeseries (ID_String type) was enlarged from 35 to 60 characters.  
Approved by MC. |
| 2       | 2       | 2020-09-16 | XSD version 4.2:  
Auction mRID attribute has been linked to Timeseries with Cardinality 0..1  
Approved by MC. |
| 2       | 3       | 2021-05-14 | XSD version 4.3:  
New reason class linked to Balancing_MarketDocument, Timeseries and Point with cardinality 0..1.  
Approved by MC. |
| 2       | 4       | 2021-09-15 | XSD version 4.4:  
New priceDescriptor class linked to FinancialPrice class with cardinality 0..1.  
Approved by MC. |
| 2       | 5       | 2022-02-01 | XSD version 4.5:  
Quantity_Measure_Unit.name attribute was renamed to Quantity_Measurement_Unit.name to be compliant with the ESMP.  
Approved by MC. |
Objective

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

The schema of the Balancing_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.
Balancing_MarketDocument

2.1 Balancing contextual model

2.1.1 Overview of the model

Figure 1 shows the model.
### 2.1.2 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>
<thead>
<tr>
<th>Name</th>
<th>Complete IsBasedOn Path</th>
</tr>
</thead>
<tbody>
<tr>
<td>AllocationDecision_DateAndOrTime</td>
<td>TC57CIM::IEC62325::MarketManagement::DateAndOrTime</td>
</tr>
<tr>
<td>Auction</td>
<td>TC57CIM::IEC62325::MarketManagement::Auction</td>
</tr>
<tr>
<td>Balancing_MarketDocument</td>
<td>TC57CIM::IEC62325::MarketManagement::MarketDocument</td>
</tr>
<tr>
<td>Currency_Unit</td>
<td>TC57CIM::IEC62325::MarketManagement::Unit</td>
</tr>
<tr>
<td>Domain</td>
<td>TC57CIM::IEC62325::MarketManagement::Domain</td>
</tr>
<tr>
<td>Financial_Price</td>
<td>TC57CIM::IEC62325::MarketManagement::Price</td>
</tr>
<tr>
<td>FlowDirection</td>
<td>TC57CIM::IEC62325::MarketManagement::FlowDirection</td>
</tr>
<tr>
<td>Imbalance_Price</td>
<td>TC57CIM::IEC62325::MarketManagement::Price</td>
</tr>
<tr>
<td>MarketParticipant</td>
<td>TC57CIM::IEC62325::MarketCommon::MarketParticipant</td>
</tr>
<tr>
<td>MarketProduct</td>
<td>TC57CIM::IEC62325::MarketCommon::MarketProduct</td>
</tr>
<tr>
<td>MarketRole</td>
<td>TC57CIM::IEC62325::MarketCommon::MarketRole</td>
</tr>
<tr>
<td>Measure_Unit</td>
<td>TC57CIM::IEC62325::MarketManagement::Unit</td>
</tr>
<tr>
<td>MktPSRType</td>
<td>TC57CIM::IEC62325::MarketManagement::MktPSRType</td>
</tr>
<tr>
<td>Point</td>
<td>TC57CIM::IEC62325::MarketCommon::Point</td>
</tr>
<tr>
<td>Price</td>
<td>TC57CIM::IEC62325::MarketManagement::Price</td>
</tr>
<tr>
<td>PriceDescriptor</td>
<td>TC57CIM::IEC62325::MarketCommon::PriceDescriptor</td>
</tr>
<tr>
<td>Process</td>
<td>TC57CIM::IEC62325::MarketManagement::Process</td>
</tr>
<tr>
<td>Reason</td>
<td>TC57CIM::IEC62325::MarketManagement::Reason</td>
</tr>
<tr>
<td>Series_Period</td>
<td>TC57CIM::IEC62325::MarketManagement::Period</td>
</tr>
<tr>
<td>Time_Period</td>
<td>TC57CIM::IEC62325::MarketManagement::Period</td>
</tr>
<tr>
<td>TimeSeries</td>
<td>TC57CIM::IEC62325::MarketManagement::TimeSeries</td>
</tr>
<tr>
<td>Type_MarketAgreement</td>
<td>TC57CIM::IEC62325::MarketManagement::MarketAgreement</td>
</tr>
<tr>
<td>Unavailable_Quantity</td>
<td>TC57CIM::IEC62325::MarketManagement::Quantity</td>
</tr>
</tbody>
</table>
2.2 Balancing assembly model

2.2.1 Overview of the model

Figure 2 shows the model.

Figure 2 - Balancing assembly model
2.2.2 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>
<thead>
<tr>
<th>Name</th>
<th>Complete IsBasedOn Path</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balancing_MarketDocument</td>
<td>TC57CIM::IEC62325::MarketManagement::MarketDocument</td>
</tr>
<tr>
<td>Financial_Price</td>
<td>TC57CIM::IEC62325::MarketManagement::Price</td>
</tr>
<tr>
<td>Point</td>
<td>TC57CIM::IEC62325::MarketManagement::Point</td>
</tr>
<tr>
<td>Reason</td>
<td>TC57CIM::IEC62325::MarketManagement::Reason</td>
</tr>
<tr>
<td>Series_Period</td>
<td>TC57CIM::IEC62325::MarketManagement::Period</td>
</tr>
<tr>
<td>TimeSeries</td>
<td>TC57CIM::IEC62325::MarketManagement::TimeSeries</td>
</tr>
</tbody>
</table>

2.2.3 Detailed Balancing assembly model

2.2.3.1 Balancing_MarketDocument root class

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

The Balancing_MarketDocument describes a specific situation in the balancing information exchange.

Table 3 shows all attributes of Balancing_MarketDocument.

<table>
<thead>
<tr>
<th>Order</th>
<th>mult.</th>
<th>Attribute name / Attribute type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>[1..1]</td>
<td>mRID ID_String</td>
<td>The unique identification of the document being exchanged within a business process flow.</td>
</tr>
<tr>
<td>1</td>
<td>[1..1]</td>
<td>revisionNumber ESMPVersion_String</td>
<td>The identification of the version that distinguishes one evolution of a document from another.</td>
</tr>
<tr>
<td>3</td>
<td>[1..1]</td>
<td>process.processType ProcessKind_String</td>
<td>The identification of the nature of process that the document addresses.</td>
</tr>
<tr>
<td>4</td>
<td>[1..1]</td>
<td>sender_MarketParticipant.mRID PartyID_String</td>
<td>The identification of a party in the energy market. Document owner.</td>
</tr>
<tr>
<td>5</td>
<td>[1..1]</td>
<td>sender_MarketParticipant.marketRole.type MarketRoleKind_String</td>
<td>The identification of the role played by a market player. Document owner. The role associated with a MarketParticipant.</td>
</tr>
<tr>
<td>6</td>
<td>[1..1]</td>
<td>receiver_MarketParticipant.mRID PartyID_String</td>
<td>The identification of a party in the energy market. Document recipient.</td>
</tr>
<tr>
<td>7</td>
<td>[1..1]</td>
<td>receiver_MarketParticipant.marketRole.type MarketRoleKind_String</td>
<td>The identification of the role played by a market player. Document recipient The role associated with a MarketParticipant.</td>
</tr>
</tbody>
</table>
Table 4 shows all association ends of Balancing_MarketDocument with other classes.

### Table 4 - Association ends of Balancing assembly model::Balancing_MarketDocument with other classes

<table>
<thead>
<tr>
<th>Order</th>
<th>mult.</th>
<th>Class name / Role</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>13</td>
<td>[0..*]</td>
<td>TimeSeries TimeSeries</td>
<td>A time series should exist to describe the specific information associated with balancing reserves, imbalance, financial report or cross-border balancing. Association Based On: Balancing contextual model::Balancing_MarketDocument.[] Balancing contextual model::TimeSeries.TimeSeries[0..*]</td>
</tr>
<tr>
<td>14</td>
<td>[0..*]</td>
<td>Reason Reason</td>
<td>The Reason associated with the electronic document header providing different motivations for the creation of the document. Association Based On: Balancing contextual model::Reason.Reason[0..*] Balancing contextual model::Balancing_MarketDocument.[]</td>
</tr>
</tbody>
</table>

#### 2.2.3.2 Financial_Price

The cost corresponding to a specific entity expressed in a currency.

Table 5 shows all attributes of Financial_Price.

### Table 5 - Attributes of Balancing assembly model::Financial_Price

<table>
<thead>
<tr>
<th>Order</th>
<th>mult.</th>
<th>Attribute name / Attribute type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>[1..1]</td>
<td>amount Amount.Decimal</td>
<td>A number of monetary units specified in a unit of currency.</td>
</tr>
<tr>
<td>1</td>
<td>[0..1]</td>
<td>direction PriceDirection_String</td>
<td>The direction of a price payment (i.e. an impacted area system operator pays to internal market parties or inverse). This is to be used only in a document describing the financial situation. The code A01 is to be used for expenditure. The code A02 is to be used for income.</td>
</tr>
</tbody>
</table>
### 2.2.3.3 Point

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

Table 6 shows all attributes of Point.

#### Table 6 - Attributes of Balancing assembly model::Point

<table>
<thead>
<tr>
<th>Order</th>
<th>mult.</th>
<th>Attribute name / Attribute type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>[1..1]</td>
<td>position Position_Integer</td>
<td>A sequential value representing the relative position within a given time interval.</td>
</tr>
<tr>
<td>1</td>
<td>[0..1]</td>
<td>quantity Decimal</td>
<td>The principal quantity or the accepted offer quantity identified for a point.</td>
</tr>
<tr>
<td>2</td>
<td>[0..1]</td>
<td>secondaryQuantity Decimal</td>
<td>This information defines the activated quantity or the offered volume for a point.</td>
</tr>
<tr>
<td>3</td>
<td>[0..1]</td>
<td>unavailable_Quantity.quantity Decimal</td>
<td>The quantity value. The association role provides the information about what is expressed. --- The Quantity of balancing energy unavailable for the activation</td>
</tr>
<tr>
<td>4</td>
<td>[0..1]</td>
<td>activation_Price.amount Amount_Decimal</td>
<td>A number of monetary units specified in a unit of currency. --- The activation pricing information per quantity and interval.</td>
</tr>
<tr>
<td>5</td>
<td>[0..1]</td>
<td>procurement_Price.amount Amount_Decimal</td>
<td>A number of monetary units specified in a unit of currency. --- The procurement pricing information per quantity and interval.</td>
</tr>
<tr>
<td>6</td>
<td>[0..1]</td>
<td>min_Price.amount Amount_Decimal</td>
<td>A number of monetary units specified in a unit of currency. --- The minimum pricing information per quantity and interval.</td>
</tr>
<tr>
<td>7</td>
<td>[0..1]</td>
<td>max_Price.amount Amount_Decimal</td>
<td>A number of monetary units specified in a unit of currency. --- The maximum pricing information per quantity and interval.</td>
</tr>
<tr>
<td>8</td>
<td>[0..1]</td>
<td>imbalance_Price.amount Amount_Decimal</td>
<td>A number of monetary units specified in a unit of currency. --- The imbalance pricing information per quantity and interval.</td>
</tr>
<tr>
<td>9</td>
<td>[0..1]</td>
<td>imbalance_Price.category PriceCategory_String</td>
<td>The category of a price to be used in a price calculation. Note: the price category is mutually agreed between system operators. --- The imbalance pricing information per quantity and interval.</td>
</tr>
<tr>
<td>10</td>
<td>[0..1]</td>
<td>flowDirection.direction DirectionKind_String</td>
<td>The coded identification of the direction of energy flow. --- The flow direction provides the indication if the reserve is activated upward or downward.</td>
</tr>
</tbody>
</table>

Table 7 shows all association ends of Point with other classes.
Table 7 - Association ends of Balancing assembly model::Point with other classes

<table>
<thead>
<tr>
<th>Order</th>
<th>mult.</th>
<th>Class name / Role</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>[0..*]</td>
<td>Financial_Price</td>
<td>The price information associated with a given Point. This identifies the financial amount in relation to a specific direction associated with a transmission system operator for procuring, activating and settling balancing information. Association Based On: Balancing contextual model::Point[].</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Financial_Price</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>[0..*]</td>
<td>Reason</td>
<td>The Reason information associated with a Point providing motivation information. Association Based On: Balancing contextual model::Reason.Reason[0..*].</td>
</tr>
</tbody>
</table>

2.2.3.4 Reason

The motivation of an act.

Table 8 shows all attributes of Reason.

Table 8 - Attributes of Balancing assembly model::Reason

<table>
<thead>
<tr>
<th>Order</th>
<th>mult.</th>
<th>Attribute name / Attribute type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>[1..1]</td>
<td>code ReasonCode_String</td>
<td>The motivation of an act in coded form.</td>
</tr>
<tr>
<td>1</td>
<td>[0..1]</td>
<td>text ReasonText_String</td>
<td>The textual explanation corresponding to the reason code.</td>
</tr>
</tbody>
</table>

2.2.3.5 Series_Period

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

Table 9 shows all attributes of Series_Period.

Table 9 - Attributes of Balancing assembly model::Series_Period

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

Table 10 shows all association ends of Series_Period with other classes.
Table 10 - Association ends of Balancing assembly model::Series_Period with other classes

<table>
<thead>
<tr>
<th>Order</th>
<th>mult.</th>
<th>Class name / Role</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>[1..*]</td>
<td>Point Point</td>
<td>The Point information associated with a given Series_Period.within a TimeSeries. Association Based On: Balancing contextual model::Series_Period[]. ----- Balancing contextual model::Point.Point[1..*]</td>
</tr>
</tbody>
</table>

2.2.3.6 **TimeSeries**

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

Table 11 shows all attributes of TimeSeries.

**Table 11 - Attributes of Balancing assembly model::TimeSeries**

<table>
<thead>
<tr>
<th>Order</th>
<th>mult.</th>
<th>Attribute name / Attribute type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>[1..1]</td>
<td>mRID ID_String</td>
<td>A unique identification of the time series.</td>
</tr>
<tr>
<td>1</td>
<td>[1..1]</td>
<td>businessType BusinessKind_String</td>
<td>The identification of the nature of the time series.</td>
</tr>
<tr>
<td>2</td>
<td>[0..1]</td>
<td>acquiring_Domain.mRID AreaID_String</td>
<td>The unique identification of the domain. --- The identification of the acquiring area.</td>
</tr>
<tr>
<td>3</td>
<td>[0..1]</td>
<td>connecting_Domain.mRID AreaID_String</td>
<td>The unique identification of the domain. --- The identification of the connecting area</td>
</tr>
<tr>
<td>4</td>
<td>[0..1]</td>
<td>type_MarketAgreement.type CapacityContractKind_String</td>
<td>The specification of the kind of the contract, e.g. long term, daily contract. --- The identification of the procurement time unit.</td>
</tr>
<tr>
<td>5</td>
<td>[0..1]</td>
<td>standard_MarketProduct.marketProductType MarketProductKind_String</td>
<td>The Type of product on a market view</td>
</tr>
<tr>
<td>6</td>
<td>[0..1]</td>
<td>original_MarketProduct.marketProductType MarketProductKind_String</td>
<td>The Type of product on a market view</td>
</tr>
<tr>
<td>7</td>
<td>[0..1]</td>
<td>mktPSRTtype.psrType PsrType_String</td>
<td>The coded type of a power system resource. --- The identification of the source type of the reserve.</td>
</tr>
<tr>
<td>8</td>
<td>[0..1]</td>
<td>flowDirection.direction DirectionKind_String</td>
<td>The coded identification of the direction of energy flow. --- The flow direction associated with a TimeSeries for the balance reserve.</td>
</tr>
<tr>
<td>9</td>
<td>[0..1]</td>
<td>currency_Unit.name CurrencyCode_String</td>
<td>The identification of the formal code for a currency (ISO 4217). --- The currency associated with a TimeSeries.</td>
</tr>
<tr>
<td>10</td>
<td>[0..1]</td>
<td>quantity_Measurement_Unit.name MeasurementUnitKind_String</td>
<td>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.</td>
</tr>
<tr>
<td>11</td>
<td>[0..1]</td>
<td>price_Measurement_Unit.name MeasurementUnitKind_String</td>
<td>The identification of the formal code for a measurement unit (UN/ECE Recommendation 20). --- The unit of measure associated with the prices in a TimeSeries.</td>
</tr>
<tr>
<td>Order</td>
<td>mult.</td>
<td>Attribute name / Attribute type</td>
<td>Description</td>
</tr>
<tr>
<td>-------</td>
<td>-------</td>
<td>----------------------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>12</td>
<td>[0..1]</td>
<td>curveType</td>
<td>The identification of the coded representation of the type of curve being described.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CurveType_String</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>[0..1]</td>
<td>cancelledTS</td>
<td>An indicator stating that the TimeSeries, identified by the mRID, is cancelled as well as all the values sent in a previous version of the TimeSeries in a previous document.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ESMPBoolean_String</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>[0..1]</td>
<td>auction.mRID</td>
<td>The unique identification of the auction. In the ESMP context, the “model authority” is defined as an emitting company that provides an agreed identification unique within a business context such as capacity auction identification, market agreement identification, etc. 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 auction characteristics that are associated with a TimeSeries.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ID_String</td>
<td></td>
</tr>
</tbody>
</table>

Table 12 shows all association ends of TimeSeries with other classes.

**Table 12 - Association ends of Balancing assembly model::TimeSeries with other classes**

<table>
<thead>
<tr>
<th>Order</th>
<th>mult.</th>
<th>Class name / Role</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>[0..*]</td>
<td>Series_Period</td>
<td>The series period class provides the balancing time unit information in respect to the balancing reserve capacity. Association Based On: Balancing contextual model::TimeSeries.[] Balancing contextual model::Series_Period.Period[0..*]</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Period</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>[0..*]</td>
<td>Reason</td>
<td>The reason information associated with a TimeSeries providing motivation information. Association Based On: Balancing contextual model::Reason.Reason[0..*] Balancing contextual model::TimeSeries.[]</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Reason</td>
<td></td>
</tr>
</tbody>
</table>

2.2.4 Datatypes

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

- Action_Status compound
- ESMP_DateTimeInterval compound
- Amount_Deecimal datatype
- AreaID_String datatype, codelist CodingSchemeTypeList
- BusinessKind_String datatype, codelist BusinessTypeList
- CapacityContractKind_String datatype, codelist ContractTypeList
- CurrencyCode_String datatype, codelist CurrencyTypeList
- CurveType_String datatype, codelist CurveTypeList
- DirectionKind_String datatype, codelist DirectionTypeList
- ESMP_DateTime datatype
• ESMPBoolean_String datatype, codelist IndicatorTypeList
• ESMPVersion_String datatype
• ID_String datatype
• MarketProductKind_String datatype, codelist MarketProductTypeList
• MarketRoleKind_String datatype, codelist RoleTypeList
• MeasurementUnitKind_String datatype, codelist UnitOfMeasureTypeList
• MessageKind_String datatype, codelist MessageTypeList
• PartyID_String datatype, codelist CodingSchemeTypeList
• Position_Integer datatype
• PriceCategory_String datatype, codelist PriceCategoryTypeList
• PriceComponent_String datatype, codelist PriceComponentTypeList
• PriceDirection_String datatype, codelist PriceDirectionTypeList
• ProcessKind_String datatype, codelist ProcessTypeList
• PsrType_String datatype, codelist AssetTypeList
• ReasonCode_String datatype, codelist ReasonCodeTypeList
• ReasonText_String datatype
• Status_String datatype, codelist StatusTypeList
• YMDHM_DateTime datatype
Figure 3 - Balancing_MarketDocument schema structure
2.2.6 Balancing MarketDocument XML schema

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


<?xml version="1.0" encoding="utf-8"?>
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema"
  xmlns:ecl="http://www.iec.ch/cimprofile"
  targetNamespace="urn:iec62325.351:tc57wg16:451-6:balancingdocument:4:5"
  elementFormDefault="qualified" attributeFormDefault="unqualified">
  <xs:import namespace="urn:entsoe.eu:wgedi:codelists" schemaLocation="urn-entsoe-eu-wgedi-codelists.xsd"/>
  <xs:element name="Balancing_MarketDocument" type="Balancing_MarketDocument"/>
  <xs:simpleType name="ID_String">
    <xs:restriction base="xs:string">
      <xs:maxLength value="60"/>
    </xs:restriction>
  </xs:simpleType>
  <xs:simpleType name="ESMPVersion_String">
    <xs:restriction base="xs:string">
      <xs:pattern value="[1-9][0-9]{0,2}="/n">
    </xs:restriction>
  </xs:simpleType>
  <xs:simpleType name="MessageKind_String">
    <xs:restriction base="ecl:MessageTypeList"/>
  </xs:simpleType>
  <xs:simpleType name="ProcessKind_String">
    <xs:restriction base="ecl:ProcessTypeList"/>
  </xs:simpleType>
  <xs:simpleType name="PartyID_String-base">
    <xs:restriction base="xs:string">
      <xs:maxLength value="16"/>
    </xs:restriction>
  </xs:simpleType>
  <xs:simpleType name="PartyID_String">
    <xs:complexType>
      <xs:extension base="PartyID_String-base">
        <xs:attribute name="codingScheme" type="ecl:CodingSchemaTypeList" use="required"/>
      </xs:extension>
    </xs:complexType>
  </xs:simpleType>
  <xs:simpleType name="MarketRoleKind_String">
  </xs:simpleType>
</xs:schema>
<xs:restriction base="ecl:RoleTypeList"/>
</xs:simpleType>

<sawsdl:modelReference>http://iec.ch/TC57/2013/CIM-schema-cim16#DateTime</sawsdl:modelReference>

<xs:restriction base="xs:dateTime">
<xs:pattern value="((([0-9]{4})\-\d{2})\-\d{2})T\(([01]\d{2})\[0-5]\d{2})"/>
</xs:simpleType>


<xs:restriction base="xs:string">
<xs:maxLength value="18"/>
</xs:simpleType>


<xs:complexType name="AreaID_String">
<xs:complexContent>
<xs:restriction base="AreaID_String-base">
<xs:attribute name="codingScheme" type="ecl:CodingSchemeTypeList" use="required"/>
</xs:restriction>
</xs:complexContent>
</xs:complexType>

<sawsdl:modelReference>http://iec.ch/TC57/2013/CIM-schema-cim16#Status</sawsdl:modelReference>

<xs:restriction base="cim16#StatusList"/>

<sawsdl:modelReference>http://iec.ch/TC57/2013/CIM-schema-cim16#DateTime</sawsdl:modelReference>

<xs:complexType name="YMDHM_DateTime">
<xs:complexContent>
<xs:restriction base="xs:string">
<xs:pattern value="((([0-9]{4})\-\d{2})\-\d{2})T\(([01]\d{2})\[0-5]\d{2})"/>
</xs:restriction>
</xs:complexContent>
</xs:complexType>
<xs:simpleType name="ReasonText_String">
  <xs:restriction base="xs:string">
    <xs:maxlength value="512"/>
  </xs:restriction>
</xs:simpleType>

<sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#String">
  <xs:string/>
</sawsdl:modelReference>

<sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#Reason">
  <xs:complexType name="Reason">
    <xs:sequence>
      <xs:element name="code" type="ReasonCode_String" minOccurs="1">
        <xs:complexType name="ReasonCode">
          <xs:simpleType name="String">
            <xs:restriction base="xs:string">
              <xs:maxLength value="10"/>
            </xs:restriction>
          </xs:simpleType>
        </xs:complexType>
      </xs:element>
      <xs:element name="text" type="ReasonText_String" minOccurs="0"/>
    </xs:sequence>
  </xs:complexType>
</sawsdl:modelReference>

<sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#Period">
  <xs:complexType name="Period">
    <xs:sequence>
      <xs:element name="timeInterval" type="ESMP_DateTimeInterval" minOccurs="1">
        <xs:complexType name="ESMP_DateTimeInterval">
          <xs:simpleType name="Duration">
            <xs:restriction base="xs:duration">
              <xs:minOccurs value="1"/>
            </xs:restriction>
          </xs:simpleType>
        </xs:complexType>
      </xs:element>
      <xs:element name="resolution" type="xs:duration" minOccurs="1"/>
    </xs:sequence>
  </xs:complexType>
</sawsdl:modelReference>

<sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#Series">
  <xs:complexType name="Series">
    <xs:sequence>
      <xs:element name="Point" type="Point" minOccurs="1"/>
    </xs:sequence>
  </xs:complexType>
</sawsdl:modelReference>

<sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#BusinessKind">
  <xs:complexType name="BusinessKind">
    <xs:restriction base="ecl:BusinessTypeList"/>
  </xs:complexType>
</sawsdl:modelReference>

<sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#CapacityContractKind">
  <xs:complexType name="CapacityContractKind">
    <xs:restriction base="ecl:ContractTypeList"/>
  </xs:complexType>
</sawsdl:modelReference>

<sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#MarketProductKind">
  <xs:complexType name="MarketProductKind">
    <xs:restriction base="ecl:MarketProductTypeList"/>
  </xs:complexType>
</sawsdl:modelReference>

<sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#PsrType">
  <xs:complexType name="PsrType">
    <xs:restriction base="ecl:AssetTypeList"/>
  </xs:complexType>
</sawsdl:modelReference>

  <xs:complexType name="CurrencyCode">
    <xs:restriction base="ecl:CurrencyTypeList"/>
  </xs:complexType>
</sawsdl:modelReference>

<sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#MeasurementUnitKind">
  <xs:complexType name="MeasurementUnitKind">
    <xs:restriction base="ecl:UnitOfMeasureTypeList"/>
  </xs:complexType>
</sawsdl:modelReference>
<xs:element name="auction.mRID" type="ID_String" minOccurs="0" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#IdentifiedObject.mRID"/>
</xs:sequence>
</xs:complexType>
</xs:schema>