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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>1</td>
<td>2019-01-14</td>
<td>First draft of the document.</td>
</tr>
<tr>
<td>1</td>
<td>0</td>
<td>2019-02-12</td>
<td>Approved by MC.</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>2021-04-20</td>
<td>Changes in XSD v6.1:</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Original_MarketDocument.mRID, Original_MarketDocument.revisionNumbe and Bid_TimeSeries association in Reserve Allocation Result document are now optional.</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>2021-09-15</td>
<td>Updates in reserve allocation result document XSD v6.2:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>An optional curveType attribute was added to Timeseries class.</td>
</tr>
<tr>
<td>1</td>
<td>3</td>
<td>2022-02-01</td>
<td>Updates in reserve allocation result document XSD v6.3:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Quantity_Measure_Unit.name &amp; Price_Measure_Unit.name attributes were renamed to Quantity_Measurement_Unit.name &amp; Price_Measurement_Unit.name to be compliant with the ESMP.</td>
</tr>
<tr>
<td>1</td>
<td>4</td>
<td>2022-06-28</td>
<td>Updates in reserve allocation result document XSD v6.4:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>bid_Original_MarketDocument.tendering_MarketParticipant.mRID, auction.mRID, marketAgreement.type and marketAgreement.mRID in Timeseries becomes optional.</td>
</tr>
</tbody>
</table>
1. **Objective**

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

The schema of the ReserveAllocationResult_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.
2. ReserveAllocationResult_MarketDocument

2.1. Reserve allocation result contextual model

2.1.1. Overview of the model

Figure 1 shows the model.

![Figure 1 - Reserve allocation result contextual 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 1 - IsBasedOn dependency**

<table>
<thead>
<tr>
<th>Name</th>
<th>Complete IsBasedOn Path</th>
</tr>
</thead>
<tbody>
<tr>
<td>AttributeInstanceComponent</td>
<td>TC57CIM::IEC62325::MarketManagement::AttributeInstanceComponent</td>
</tr>
<tr>
<td>Auction</td>
<td>TC57CIM::IEC62325::MarketManagement::Auction</td>
</tr>
<tr>
<td>BidTimeSeries</td>
<td>TC57CIM::IEC62325::MarketManagement::BidTimeSeries</td>
</tr>
<tr>
<td>ConstraintDuration</td>
<td>TC57CIM::IEC62325::MarketManagement::ConstraintDuration</td>
</tr>
<tr>
<td>Contract_MarketAgreement</td>
<td>TC57CIM::IEC62325::MarketManagement::MarketAgreement</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>FlowDirection</td>
<td>TC57CIM::IEC62325::MarketManagement::FlowDirection</td>
</tr>
<tr>
<td>MarketParticipant</td>
<td>TC57CIM::IEC62325::MarketCommon::MarketParticipant</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>Original_MarketDocument</td>
<td>TC57CIM::IEC62325::MarketManagement::MarketDocument</td>
</tr>
<tr>
<td>Point</td>
<td>TC57CIM::IEC62325::MarketManagement::Point</td>
</tr>
<tr>
<td>Price</td>
<td>TC57CIM::IEC62325::MarketManagement::Price</td>
</tr>
<tr>
<td>Process</td>
<td>TC57CIM::IEC62325::MarketManagement::Process</td>
</tr>
<tr>
<td>Quantity</td>
<td>TC57CIM::IEC62325::MarketManagement::Quantity</td>
</tr>
<tr>
<td>Reason</td>
<td>TC57CIM::IEC62325::MarketManagement::Reason</td>
</tr>
<tr>
<td>RegisteredResource</td>
<td>TC57CIM::IEC62325::MarketCommon::RegisteredResource</td>
</tr>
<tr>
<td>ReserveAllocationResult_MarketDocument</td>
<td>TC57CIM::IEC62325::MarketManagement::MarketDocument</td>
</tr>
<tr>
<td>Series_Period</td>
<td>TC57CIM::IEC62325::MarketManagement::Period</td>
</tr>
<tr>
<td>Tendering_MarketParticipant</td>
<td>TC57CIM::IEC62325::MarketCommon::MarketParticipant</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>
</tbody>
</table>
2.2. Reserve allocation result assembly model

2.2.1. Overview of the model

Figure 2 shows the 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>Point</td>
<td>TC57CIM::IEC62325::MarketManagement::Point</td>
</tr>
<tr>
<td>Reason</td>
<td>TC57CIM::IEC62325::MarketManagement::Reason</td>
</tr>
<tr>
<td>ReserveAllocationResult_MarketDocument</td>
<td>TC57CIM::IEC62325::MarketManagement::MarketDocument</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 Reserve allocation result assembly model

2.2.3.1. ReserveAllocationResult_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 ReserveAllocationResult_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>[0..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.</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.</td>
</tr>
<tr>
<td>8</td>
<td>[1..1]</td>
<td>createdDateTime_ESMP_DateTime</td>
<td>The date and time of the creation of the document.</td>
</tr>
<tr>
<td>9</td>
<td>[1..1]</td>
<td>reserveBid_Period.timeInterval_ESMP_DateTimeInterval</td>
<td>The start and end date and time for a given interval. --- The beginning and ending date and time of the period covered by the document.</td>
</tr>
</tbody>
</table>
Table 4 shows all association ends of ReserveAllocationResult_MarketDocument with other classes.

Table 4 - Association ends of Reserve allocation result assembly model::ReserveAllocationResult_MarketDocument with other classes

<table>
<thead>
<tr>
<th>Order</th>
<th>mut.</th>
<th>Class name / Role</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>[0..*]</td>
<td>TimeSeries</td>
<td>Association Based On:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TimeSeries</td>
<td>Reserve allocation result contextual model::TimeSeries[0..*]</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>...</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Reserve allocation result contextual model::ReserveAllocationResult_MarketDocument.[]</td>
</tr>
<tr>
<td>12</td>
<td>[0..*]</td>
<td>Reason</td>
<td>Association Based On:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Reason</td>
<td>Reserve allocation result contextual model::Reason[0..*]</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>...</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Reserve allocation result contextual model::ReserveAllocationResult_MarketDocument.[]</td>
</tr>
</tbody>
</table>

2.2.3.2. Point

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

Table 5 shows all attributes of Point.

Table 5 - Attributes of Reserve allocation result assembly model::Point

<table>
<thead>
<tr>
<th>Order</th>
<th>mut.</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>[1..1]</td>
<td>quantity Decimal</td>
<td>The quantity that has been allocated or resold in the auction. The principal quantity identified for a point.</td>
</tr>
<tr>
<td>2</td>
<td>[0..1]</td>
<td>price.amount Amount_Decimal</td>
<td>A number of monetary units specified in a unit of currency. The original price expressed in the original bid or resale for each unit of quantity requested.</td>
</tr>
<tr>
<td>3</td>
<td>[0..1]</td>
<td>secondaryQuantity Decimal</td>
<td>The quantity that was in the original bid or resale document. The secondary quantity identified for a point.</td>
</tr>
<tr>
<td>4</td>
<td>[0..1]</td>
<td>bid_Price.amount Amount_Decimal</td>
<td>A number of monetary units specified in a unit of currency. The price expressed for each unit of quantity allocated.</td>
</tr>
<tr>
<td>5</td>
<td>[0..1]</td>
<td>bidEnergy_Price.amount Amount_Decimal</td>
<td>A number of monetary units specified in a unit of currency.</td>
</tr>
<tr>
<td>6</td>
<td>[0..1]</td>
<td>energy_Price.amount Amount_Decimal</td>
<td>A number of monetary units specified in a unit of currency.</td>
</tr>
</tbody>
</table>
Table 6 shows all association ends of Point with other classes.

### Table 6 - Association ends of Reserve allocation result 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>7</td>
<td>[0..*]</td>
<td>Reason Reason</td>
<td>Association Based On: Reserve allocation result contextual model::Reason.Reason[0..*] Reserve allocation result contextual model::Point.[]</td>
</tr>
</tbody>
</table>

#### 2.2.3.3. Reason

The motivation of an act.

Table 7 shows all attributes of Reason.

### Table 7 - Attributes of Reserve allocation result 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>

#### 2.2.3.4. Series_Period

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

Table 8 shows all attributes of Series_Period.

### Table 8 - Attributes of Reserve allocation result 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 9 shows all association ends of Series_Period with other classes.
Table 9 - Association ends of Reserve allocation result 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>Association Based On: Reserve allocation result contextual model::Point.Point[1..*] Reserve allocation result contextual model::Series_Period,[],</td>
</tr>
</tbody>
</table>

2.2.3.5. TimeSeries

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

For each time series in the document, the identification shall be a unique number assigned by the auction office.

Table 10 shows all attributes of TimeSeries.

Table 10 - Attributes of Reserve allocation result 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>[0..1]</td>
<td>bid_Original_MarketDocument.mRID ID_String</td>
<td>The unique identification of the document being exchanged within a business process flow. --- The identification of the document that contains the bids or resales referenced in the BidTimeSeries.</td>
</tr>
<tr>
<td>2</td>
<td>[0..1]</td>
<td>bid_Original_MarketDocument.revisionNumber ESMPVersion_String</td>
<td>The identification of the version that distinguishes one evolution of a document from another. --- The identification of the document that contains the bids or resales referenced in the BidTimeSeries.</td>
</tr>
<tr>
<td>3</td>
<td>[0..1]</td>
<td>bid_Original_MarketDocument.bid_BidTimeSeries.mRID ID_String</td>
<td>A unique identification of the time series. --- The identification of the document that contains the bids or resales referenced in the BidTimeSeries. --- The identification of the time series that was used in the original bid or resale. This is the unique number that is assigned by the bidder when he made his original bid or resale.</td>
</tr>
<tr>
<td>4</td>
<td>[0..1]</td>
<td>bid_Original_MarketDocument.tendering_MarketParticipant.mRID PartyID_String</td>
<td>The identification of a party in the energy market. --- The identification of the document that contains the bids or resales referenced in the BidTimeSeries.</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>5</td>
<td>[0..1]</td>
<td>auction.mRID</td>
<td>The unique identification of the auction. --- The identification linking the allocation to a set of specifications created by the auction operator.</td>
</tr>
<tr>
<td>6</td>
<td>[1..1]</td>
<td>businessType</td>
<td>The identification of the nature of the time series.</td>
</tr>
<tr>
<td>7</td>
<td>[1..1]</td>
<td>acquiring_Domain.mRID</td>
<td>The unique identification of the domain. --- The area where the energy is to be put.</td>
</tr>
<tr>
<td>8</td>
<td>[1..1]</td>
<td>connecting_Domain.mRID</td>
<td>The unique identification of the domain. --- The area where the energy is coming from.</td>
</tr>
<tr>
<td>9</td>
<td>[0..1]</td>
<td>marketAgreement.type</td>
<td>The specification of the kind of the agreement, e.g. long term, daily contract.</td>
</tr>
<tr>
<td>10</td>
<td>[0..1]</td>
<td>marketAgreement.mRID</td>
<td>The unique identification of the agreement.</td>
</tr>
<tr>
<td>11</td>
<td>[0..1]</td>
<td>marketAgreement.createdDateTime</td>
<td>The date and time of the creation of the agreement.</td>
</tr>
<tr>
<td>12</td>
<td>[1..1]</td>
<td>quantity_Measurement_Unit.name</td>
<td>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 time series is expressed, e.g. MAW.</td>
</tr>
<tr>
<td>13</td>
<td>[0..1]</td>
<td>currency_Unit.name</td>
<td>The identification of the formal code for a currency (ISO 4217). --- The currency in which the monetary amount is expressed.</td>
</tr>
<tr>
<td>14</td>
<td>[0..1]</td>
<td>price_Measurement_Unit.name</td>
<td>The identification of the formal code for a measurement unit (UN/ECE Recommendation 20). --- The unit of measure in which the price in the time series is expressed.</td>
</tr>
<tr>
<td>15</td>
<td>[0..1]</td>
<td>energy_Measurement_Unit.name</td>
<td>The identification of the formal code for a measurement unit (UN/ECE Recommendation 20).</td>
</tr>
<tr>
<td>16</td>
<td>[0..1]</td>
<td>registeredResource.mRID</td>
<td>The unique identification of a resource. --- The identification of a resource associated with a TimeSeries.</td>
</tr>
<tr>
<td>17</td>
<td>[1..1]</td>
<td>flowDirection.direction</td>
<td>The coded identification of the direction of energy flow.</td>
</tr>
<tr>
<td>18</td>
<td>[0..1]</td>
<td>minimumActivation_Quantity.quantity</td>
<td>The quantity value. The association role provides the information about what is expressed.</td>
</tr>
<tr>
<td>19</td>
<td>[0..1]</td>
<td>stepIncrement_Quantity.quantity</td>
<td>The quantity value. The association role provides the information about what is expressed.</td>
</tr>
</tbody>
</table>
Table 11 shows all association ends of TimeSeries with other classes.

### Table 11 - Association ends of Reserve allocation result 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>26</td>
<td>[1..*]</td>
<td>Series_Period_Period</td>
<td>Association Based On: Reserve allocation result contextual model::Series_Period.Period[1..*]..... Reserve allocation result contextual model::TimeSeries.[]</td>
</tr>
<tr>
<td>27</td>
<td>[0..*]</td>
<td>Reason_Reason</td>
<td>Association Based On: Reserve allocation result contextual model::Reason.Reason[0..*]..... Reserve allocation result contextual model::TimeSeries.[]</td>
</tr>
</tbody>
</table>

#### 2.2.4. Datatypes

The list of datatypes used for the Reserve allocation result assembly model is as follows:

- ESMP_DateTimeInterval compound
- Amount_Decimal 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
- ESMPVersion_String datatype
- ID_String datatype
- MarketRoleKind_String datatype, codelist RoleTypeList
- MeasurementUnitKind_String datatype, codelist UnitOfMeasureTypeList
- MessageKind_String datatype, codelist MessageTypeList
- PartyID_String datatype, codelist CodingSchemeTypeList
- Position_Integer datatype
- ProcessKind_String datatype, codelist ProcessTypeList
- ReasonCode_String datatype, codelist ReasonCodeTypeList
- ReasonText_String datatype
- ResourceID_String datatype, codelist CodingSchemeTypeList
- YMDHM_DateTime datatype
2.2.5. ReserveAllocationResult_MarketDocument XML schema structure

Figure 3 - ReserveAllocationResult_MarketDocument schema structure
2.2.6. ReserveAllocationResult_MarketDocument XML schema

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

urn:iec62325.351:tc57wg16:451-7:reserveallocationresultdocument:6:4

```xml
<?xml version="1.0" encoding="utf-8"?>
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema"
  xmlns:sawsdl="http://www.w3.org/2001/XMLSchema"
  targetNamespace="urn:iec62325.351:tc57wg16:451-7:reserveallocationresultdocument:6:4"
  schemaLocation="urn:entsoe.eu:wgedi:codelists.xsd">

  <xs:import namespace="urn:entsoe.eu:wgedi:codelists" schemaLocation="urn-entsoe-eu-wgedi-codelists.xsd"/>

  <xs:element name="ReserveAllocationResult_MarketDocument" type="ReserveAllocationResult_MarketDocument"/>

  <xs:simpleType name="Position_Integer">
    <xs:restriction base="xs:integer">
      <xs:minInclusive value="1"/>
      <xs:maxInclusive value="999999"/>
    </xs:restriction>
  </xs:simpleType>

  <xs:simpleType name="Amount_Decimal">
    <xs:restriction base="xs:decimal">
      <xs:totalDigits value="17"/>
    </xs:restriction>
  </xs:simpleType>

  <xs:complexType name="Point">
    <xs:sequence>
      <xs:element name="position" type="Position_Integer" minOccurs="1" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#Point.position"/>
      <xs:element name="quantity" type="xs:decimal" minOccurs="0" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#Point.quantity"/>
      <xs:element name="price.amount" type="Amount_Decimal" minOccurs="0" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#Price.amount"/>
      <xs:element name="secondaryQuantity" type="xs:decimal" minOccurs="0" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#Point.secondaryQuantity"/>
      <xs:element name="bid.Price.amount" type="Amount_Decimal" minOccurs="0" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#Price.amount"/>
      <xs:element name="bidEnergy_Price.amount" type="Amount_Decimal" minOccurs="0" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#Price.amount"/>
    </xs:sequence>
  </xs:complexType>
</xs:schema>
```
  <xs:element name="energy_Price.amount" type="Amount_Decimal"
minOccurs="0" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#Price.amount"/>
</xs:sequence>
</xs:complexType>
<xs:simpleType name="ReasonCode_String">
<xs:restriction base="ecl:ReasonCodeTypeList"/>
</xs:simpleType>
<xs:simpleType name="ReasonText_String">
<xs:restriction base="xs:string">
  <xs:maxlength value="512"/>
</xs:restriction>
</xs:simpleType>
<xs:simpleType name="Reason">
<xs:complexType>
<xs:sequence>
  <xs:element name="code" type="ReasonCode_String" minOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#Reason.code"/>
  <xs:element name="text" type="ReasonText_String" minOccurs="0" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#Reason.text"/>
</xs:sequence>
</xs:complexType>
</xs:simpleType>
<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]{0,2}\d{0,2}"/>
</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:complexType name="PartyID_String">
  <xs:simpleContent>
    <xs:extension base="PartyID_String-base">
      <xs:attribute name="codingScheme" type="ecl:CodingSchemeTypeList" use="required"/>
    </xs:extension>
  </xs:simpleContent>
</xs:complexType>

<sawdl:modelReference "http://iec.ch/TC57/2013/CIM-schema-cim16#String"/>

<xs:complexType name="MarketRoleKind_String">
  <xs:simpleContent>
    <xs:extension base="MarketRoleKind_String-base">
      <xs:attribute name="codingScheme" type="ecl:CodingSchemeTypeList" use="required"/>
    </xs:extension>
  </xs:simpleContent>
</xs:complexType>

<sawdl:modelReference "http://iec.ch/TC57/2013/CIM-schema-cim16#String"/>

<xs:complexType name="ESMP_DateTime">
  <xs:simpleContent>
    <xs:extension base="xs:dateTime">
      <xs:attribute name="codingScheme" type="ecl:CodingSchemeTypeList" use="required"/>
    </xs:extension>
  </xs:simpleContent>
</xs:complexType>

<sawdl:modelReference "http://iec.ch/TC57/2013/CIM-schema-cim16#String"/>

<xs:complexType name="AreaID_String-base">
  <xs:simpleContent>
    <xs:extension base="AreaID_String-string">
      <xs:attribute name="codingScheme" type="ecl:CodingSchemeTypeList" use="required"/>
    </xs:extension>
  </xs:simpleContent>
</xs:complexType>

<sawdl:modelReference "http://iec.ch/TC57/2013/CIM-schema-cim16#String"/>

<xs:complexType name="YMDHM_DateTime">
  <xs:simpleContent>
    <xs:extension base="xs:dateTime">
      <xs:attribute name="codingScheme" type="ecl:CodingSchemeTypeList" use="required"/>
    </xs:extension>
  </xs:simpleContent>
</xs:complexType>

<sawdl:modelReference "http://iec.ch/TC57/2013/CIM-schema-cim16#String"/>
ENTSO-E Reserve allocation result document – UML model and schema

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```xml
<xs:simpleType name="ESMP_DateTimeInterval"
  sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#DateTimeInterval">
  <xs:restriction>
    <xs:facet name="minLength">
    </xs:facet>
    <xs:pattern value="(02)[0-9]{2}([01][0-9])?[2-8]Y((0[0-9])|2[0-3]):[0-5]:[0-9]Z"/>
  </xs:restriction>
</xs:simpleType>
```

```xml
<xs:complexType name="ReserveAllocationResult_MarketDocument"
  <xs:sequence>
    <xs:element name="mRID" type="ID_String" minOccurs="1" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#IdentifiedObject.mRID/>
    <xs:element name="revisionNumber" type="ESMPVersion_String" minOccurs="1" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#Document.revisionNumber"/>
  </xs:sequence>
</xs:complexType>
```

These are fragments of XML code representing the structure of a reserve allocation result document for the European Network of Transmission System Operators for Electricity (ENTSO-E). The code defines the data model for such documents, including elements such as `mRID`, `revisionNumber`, and `createdDateTime`, which are crucial for identifying and tracking changes in the data.
ENTSO-E Reserve allocation result document – UML model and schema

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<xs:element name="TimeSeries" type="TimeSeries" minOccurs="0">
</xs:element>
</xs:complexType>
</xs:simpleType>
</xs:schema>
<xs:schema xmlns="http://www.w3.org/2001/XMLSchema"
  xmlns:sawsdl="http://www.entsoe.eu/SawSDL"
  targetNamespace="http://iec.ch/TC57/2013/CIM">
  <xs:element name="Series_Period">
    <xs:complexType>
      <xs:sequence>
        <xs:element name="Reason" type="Reason" minOccurs="0"/>
        <xs:element name="Point" type="Point" minOccurs="0"/>
        <xs:element name="ESMP_DateTimeInterval" type="ESMP_DateTime.Relative" minOccurs="0"/>
      </xs:sequence>
    </xs:complexType>
  </xs:element>
  <xs:simpleType name="ResourceID_String">
    <xs:restriction base="ecl:ResourceID_String-base"/>
  </xs:simpleType>
  <xs:simpleType name="DirectionKind_String">
    <xs:extension base="ecl:DirectionTypeList" use="required"/>
  </xs:simpleType>
  <xs:simpleType name="CurrencyCode_String">
    <xs:restriction base="ecl:CurrencyTypeList"/>
  </xs:simpleType>
  <xs:simpleType name="MeasurementUnitKind_String">
    <xs:restriction base="ecl:UnitOfMeasureTypeList"/>
  </xs:simpleType>
  <xs:simpleType name="CapacityContractKind_String">
    <xs:restriction base="ecl:ContractTypeList"/>
  </xs:simpleType>
  <xs:simpleType name="BusinessKind_String">
    <xs:restriction base="ecl:BusinessTypeList"/>
  </xs:simpleType>
</xs:schema>
1. E Reserve allocation result document

ENTSO-E Reserve allocation result document – UML model and schema
VERSION 1.4

ENTSO-E | Rue de Spa, 8 | 1000 Brussels | info@entsoe.eu | www.entsoe.eu | @entso_e
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<xs:element name="price_Measurement_Unit.name" type="MeasurementUnitKind_String" minOccurs="0" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TCS7/2013/CIM-schema-cim16#Unit.name"/>

<xs:element name="energy_Measurement_Unit.name" type="MeasurementUnitKind_String" minOccurs="0" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TCS7/2013/CIM-schema-cim16#Unit.name"/>

<xs:element name="registeredResource.mRID" type="ResourceID_String" minOccurs="0" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TCS7/2013/CIM-schema-cim16#IdentifiedObject.mRID"/>

<xs:element name="flowDirection.direction" type="DirectionKind_String" minOccurs="0" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TCS7/2013/CIM-schema-cim16#FlowDirection.direction"/>

<xs:element name="minimumActivation.Quantity.quantity" type="stepIncrement_Quantity.quantity" minOccurs="0" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TCS7/2013/CIM-schema-cim16#Quantity.quantity"/>

<xs:element name="minimum_ConstraintDuration.duration" type="xs:decimal" minOccurs="0" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TCS7/2013/CIM-schema-cim16#ConstraintDuration.duration"/>

<xs:element name="resting_ConstraintDuration.duration" type="xs:duration" minOccurs="0" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TCS7/2013/CIM-schema-cim16#ConstraintDuration.duration"/>

<xs:element name="maximum_ConstraintDuration.duration" type="xs:duration" minOccurs="0" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TCS7/2013/CIM-schema-cim16#ConstraintDuration.duration"/>

<xs:element name="constraintDuration.position" type="Position_Integer" minOccurs="0" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TCS7/2013/CIM-schema-cim16#AttributeInstanceComponent.position"/>

<xs:element name="activation_ConstraintDuration.duration" type="xs:duration" minOccurs="0" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TCS7/2013/CIM-schema-cim16#ConstraintDuration.duration"/>

<xs:element name="minimum_InstructionConstraintDuration.duration" type="xs:duration" minOccurs="0" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TCS7/2013/CIM-schema-cim16#ConstraintDuration.duration"/>

<xs:element name="maximum_InstructionConstraintDuration.duration" type="xs:duration" minOccurs="0" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TCS7/2013/CIM-schema-cim16#ConstraintDuration.duration"/>

<xs:element name="reason" type="Reason" minOccurs="0" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TCS7/2013/CIM-schema-cim16#TimeSeries.Reason"/>

<xs:sequence>
  <xs:complexType>
    <xs:sequence>
      <xs:element name="price_Measurement_Unit.name" type="PriceMeasurement_Unit.name" minOccurs="0" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TCS7/2013/CIM-schema-cim16#PriceMeasurement_Unit.name"/>
      <xs:element name="price_Measurement_Unit.Unit.name" type="MeasurementUnitKind_String" minOccurs="0" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TCS7/2013/CIM-schema-cim16#Unit.name"/>
      <xs:element name="registeredResource.mRID" type="ResourceID_String" minOccurs="0" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TCS7/2013/CIM-schema-cim16#IdentifiedObject.mRID"/>
      <xs:element name="flowDirection.direction" type="DirectionKind_String" minOccurs="0" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TCS7/2013/CIM-schema-cim16#FlowDirection.direction"/>
      <xs:element name="minimumActivation.Quantity.quantity" type="stepIncrement_Quantity.quantity" minOccurs="0" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TCS7/2013/CIM-schema-cim16#Quantity.quantity"/>
      <xs:element name="minimum_ConstraintDuration.duration" type="xs:decimal" minOccurs="0" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TCS7/2013/CIM-schema-cim16#ConstraintDuration.duration"/>
      <xs:element name="resting_ConstraintDuration.duration" type="xs:duration" minOccurs="0" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TCS7/2013/CIM-schema-cim16#ConstraintDuration.duration"/>
      <xs:element name="maximum_ConstraintDuration.duration" type="xs:duration" minOccurs="0" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TCS7/2013/CIM-schema-cim16#ConstraintDuration.duration"/>
      <xs:element name="constraintDuration.position" type="Position_Integer" minOccurs="0" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TCS7/2013/CIM-schema-cim16#AttributeInstanceComponent.position"/>
      <xs:element name="activation_ConstraintDuration.duration" type="xs:duration" minOccurs="0" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TCS7/2013/CIM-schema-cim16#ConstraintDuration.duration"/>
      <xs:element name="minimum_InstructionConstraintDuration.duration" type="xs:duration" minOccurs="0" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TCS7/2013/CIM-schema-cim16#ConstraintDuration.duration"/>
      <xs:element name="maximum_InstructionConstraintDuration.duration" type="xs:duration" minOccurs="0" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TCS7/2013/CIM-schema-cim16#ConstraintDuration.duration"/>
      <xs:element name="reason" type="Reason" minOccurs="0" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TCS7/2013/CIM-schema-cim16#TimeSeries.Reason"/>
    </xs:sequence>
  </xs:complexType>
</xs:sequence>