CONFIRMATION DOCUMENT
UML MODEL AND SCHEMA

2022-02-01
APPROVED DOCUMENT
VERSION 1.2
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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>1</td>
<td>0</td>
<td>2019-09-10</td>
<td>Updates in schema ‘iec62325-451-2-confirmation_v5_1’: Optional connectingLine_RegisteredResource attribute added to the Imposed_TimeSeries and confirmed_TimeSeries class. mRID of Document, Series and Timeseries (ID_String type) was enlarged from 35 to 60 characters. MC approved.</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>2021-01-27</td>
<td>Updates in schema ‘iec62325-451-2-confirmation_v5_2’: Two new optional related_MarketDocument.mRID and related_MarketDocument.revisionNumber attributes are added to the Confirmation_MarketDocument class. Approved by MC.</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>2022-02-01</td>
<td>Updates in schema ‘iec62325-451-2-confirmation_v5_3’: measure_Unit.name attributes were renamed to measurement_Unit.name to be compliant with the ESMP. Approved by MC.</td>
</tr>
</tbody>
</table>
**Objective**

The purpose of this document is to provide the contextual and assembly UML models and the schema of the Confirmation_MarketDocument. The schema of the Confirmation_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.
2.1 Confirmation report contextual model

2.1.1 Overview of the model

Figure 1 shows the model.

**Figure 1 - Confirmation report 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>
<thead>
<tr>
<th>Name</th>
<th>Complete IsBasedOn Path</th>
</tr>
</thead>
<tbody>
<tr>
<td>Confirmation_MarketDocument</td>
<td>TC57CIM::IEC62325::MarketManagement::MarketDocument</td>
</tr>
<tr>
<td>Confirmed_MarketDocument</td>
<td>TC57CIM::IEC62325::MarketManagement::MarketDocument</td>
</tr>
<tr>
<td>Confirmed_TimeSeries</td>
<td>TC57CIM::IEC62325::MarketManagement::TimeSeries</td>
</tr>
<tr>
<td>Domain</td>
<td>TC57CIM::IEC62325::MarketManagement::Domain</td>
</tr>
<tr>
<td>Imposed_TimeSeries</td>
<td>TC57CIM::IEC62325::MarketManagement::TimeSeries</td>
</tr>
<tr>
<td>MarketAgreement</td>
<td>TC57CIM::IEC62325::MarketManagement::MarketAgreement</td>
</tr>
<tr>
<td>MarketEvaluationPoint</td>
<td>TC57CIM::IEC62325::MarketManagement::MarketEvaluationPoint</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>Party_MarketParticipant</td>
<td>TC57CIM::IEC62325::MarketCommon::MarketParticipant</td>
</tr>
<tr>
<td>Point</td>
<td>TC57CIM::IEC62325::MarketManagement::Point</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>RegisteredResource</td>
<td>TC57CIM::IEC62325::MarketCommon::RegisteredResource</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>
</tbody>
</table>
2.2 Confirmation report assembly model

2.2.1 Overview of the model

Figure 2 shows the model.

![Diagram of Confirmation report assembly model]

Figure 2 - Confirmation report 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>Confirmation_MarketDocument</td>
<td>TC57CIM::IEC62325::MarketManagement::MarketDocument</td>
</tr>
<tr>
<td>Confirmed_TimeSeries</td>
<td>TC57CIM::IEC62325::MarketManagement::TimeSeries</td>
</tr>
<tr>
<td>Imposed_TimeSeries</td>
<td>TC57CIM::IEC62325::MarketManagement::TimeSeries</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>
</tbody>
</table>

2.2.3 Detailed Confirmation report assembly model

2.2.3.1 Confirmation_MarketDocument root class

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

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

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

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

Table 3 shows all attributes of Confirmation_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></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></td>
<td>type MessageKind_String</td>
<td>The coded type of a document. The document type describes the principal characteristic of the document.</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>createdDateTime ESMP_DateTime</td>
<td>The date and time of the creation of the document.</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>sender_MarketParticipant.mRID PartyID_String</td>
<td>The identification of a party in the energy market. Document owner.</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>4</td>
<td>[1..1]</td>
<td>sender_MarketParticipant.marketRole.type</td>
<td>The identification of the role played by a market player. --- Document owner. --- The role associated with a MarketParticipant.</td>
</tr>
<tr>
<td>5</td>
<td>[1..1]</td>
<td>receiver_MarketParticipant.mRID</td>
<td>The identification of a party in the energy market. --- Document recipient.</td>
</tr>
<tr>
<td>6</td>
<td>[1..1]</td>
<td>receiver_MarketParticipant.marketRole.type</td>
<td>The identification of the role played by a market player. --- Document recipient. --- The role associated with a MarketParticipant.</td>
</tr>
<tr>
<td>7</td>
<td>[1..1]</td>
<td>schedule_Period.timeInterval</td>
<td>The start and end date and time for a given interval. --- This information provides the beginning date and time and the ending date and time of the schedule period for which the confirmation report is being generated. The time interval that is associated with an electronic document and which is valid for the whole document.</td>
</tr>
<tr>
<td>8</td>
<td>[0..1]</td>
<td>confirmed_MarketDocument.mRID</td>
<td>The unique identification of the document being exchanged within a business process flow. --- The information about the document being confirmed.</td>
</tr>
<tr>
<td>9</td>
<td>[0..1]</td>
<td>confirmed_MarketDocument.revisionNumber</td>
<td>The identification of the version that distinguishes one evolution of a document from another. --- The information about the document being confirmed.</td>
</tr>
<tr>
<td>10</td>
<td>[0..1]</td>
<td>related_MarketDocument.mRID</td>
<td>The unique identification of the document being exchanged within a business process flow. --- The identification of an electronic document that is related to an electronic document header.</td>
</tr>
<tr>
<td>11</td>
<td>[0..1]</td>
<td>related_MarketDocument.revisionNumber</td>
<td>The identification of the version that distinguishes one evolution of a document from another. --- The identification of an electronic document that is related to an electronic document header.</td>
</tr>
<tr>
<td>12</td>
<td>[1..1]</td>
<td>domain.mRID</td>
<td>The unique identification of the domain. --- The identification of the domain that is covered in the document being confirmed. The Domain associated with an electronic document header.</td>
</tr>
<tr>
<td>13</td>
<td>[0..1]</td>
<td>subject_MarketParticipant.mRID</td>
<td>The identification of a party in the energy market. --- The party that is the subject within the document being confirmed.</td>
</tr>
<tr>
<td>14</td>
<td>[0..1]</td>
<td>subject_MarketParticipant.marketRole.type</td>
<td>The identification of the role played by a market player. --- The party that is the subject within the document being confirmed. --- The role associated with a MarketParticipant.</td>
</tr>
<tr>
<td>15</td>
<td>[0..1]</td>
<td>process.processType</td>
<td>The identification of the nature of process that the document addresses. --- The process defined in the document being confirmed.</td>
</tr>
</tbody>
</table>

Table 4 shows all association ends of Confirmation_MarketDocument with other classes.
### Table 4 - Association ends of Confirmation report assembly model::Confirmation_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>16</td>
<td>[1..*]</td>
<td>Reason</td>
<td>The reason code provides the status of the differences and confirmation. If the schedule is fully accepted then there is simply a reason code (A06) at the header part of the report. For errors as many reason elements as necessary may be used. An example of reason codes could be: A06: Schedule accepted; A07: Schedule partially accepted; A08: Schedule rejected. The Reason associated with the electronic document header providing different motivations for the creation of the document. Association Based On: Confirmation report contextual model::Confirmation_MarketDocument[]{]</td>
</tr>
<tr>
<td>17</td>
<td>[0..*]</td>
<td>Imposed_TimeSeries</td>
<td>The time series that is associated with an electronic document. The content of the timeseries is imposed by the sender of this document to the receiver. Association Based On: Confirmation report contextual model::Confirmation_MarketDocument[{]</td>
</tr>
<tr>
<td>18</td>
<td>[0..*]</td>
<td>Confirmed_TimeSeries</td>
<td>The time series that is associated with an electronic document. The content of the timeseries is what was transmitted; and the sender confirm the values in this timeseries. Association Based On: Confirmation report contextual model::Confirmation_MarketDocument[{]</td>
</tr>
</tbody>
</table>

### 2.2.3.2 Confirmed_TimeSeries

This TimeSeries contains all the time series that are confirmed by the sender to the receiver. A set of time-ordered quantities being exchanged in relation to a product. Table 5 shows all attributes of Confirmed_TimeSeries.

### Table 5 - Attributes of Confirmation report assembly model::Confirmed_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>version ESMPVersion_String</td>
<td>The identification of the version of the time series.</td>
</tr>
<tr>
<td>2</td>
<td>[1..1]</td>
<td>businessType BusinessKind_String</td>
<td>The identification of the nature of the time series.</td>
</tr>
<tr>
<td>3</td>
<td>[1..1]</td>
<td>product EnergyProductKind_String</td>
<td>The identification of the nature of an energy product such as power, energy, reactive power, etc.</td>
</tr>
<tr>
<td>4</td>
<td>[1..1]</td>
<td>objectAggregation ObjectAggregationKind_String</td>
<td>The identification of the domain that is the common denominator used to aggregate a time series.</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>in_Domain.mRID AreaID_String</td>
<td>The unique identification of the domain. -- The identification of the in area of the time series that has been confirmed by the system operator with the coding scheme used in the original transmission. The domain associated with a TimeSeries.</td>
</tr>
<tr>
<td>6</td>
<td>[0..1]</td>
<td>out_Domain.mRID AreaID_String</td>
<td>The unique identification of the domain. -- The identification of the out area of the time series that has been confirmed by the system operator with the coding scheme used in the original transmission. The domain associated with a TimeSeries.</td>
</tr>
<tr>
<td>7</td>
<td>[0..1]</td>
<td>marketEvaluationPoint.mRID MeasurementPointID_String</td>
<td>A unique identification of the measurement point. -- The identification of the location where one or more products are metered of the time series that has been confirmed by the system operator with the coding scheme used and sub-value if it was in the original transmission. The identification of a measurement point associated with a TimeSeries.</td>
</tr>
<tr>
<td>8</td>
<td>[0..1]</td>
<td>in_MarketParticipant.mRID PartyID_String</td>
<td>The identification of a party in the energy market. -- The identification of the party, which is putting the product into the area, of the time series that has been confirmed by the system operator with the coding scheme used in the original transmission. The identification of a market participant associated with a TimeSeries.</td>
</tr>
<tr>
<td>9</td>
<td>[0..1]</td>
<td>out_MarketParticipant.mRID PartyID_String</td>
<td>The identification of a party in the energy market. -- The identification of the party, which is taking the product out of the area, of the time series that has been confirmed by the system operator with the coding scheme used if it was in the original transmission. The identification of a market participant associated with a TimeSeries.</td>
</tr>
<tr>
<td>10</td>
<td>[0..1]</td>
<td>marketAgreement.type CapacityContractKind_String</td>
<td>The specification of the kind of the agreement, e.g. long term, daily contract. -- This information identifies the capacity agreement made between the parties for the sale or purchase of capacity. It corresponds to the information that has been confirmed by the system operator. The identification of an agreement associated with a time series.</td>
</tr>
<tr>
<td>11</td>
<td>[0..1]</td>
<td>marketAgreement.mRID ID_String</td>
<td>The unique identification of the agreement. -- This information identifies the capacity agreement made between the parties for the sale or purchase of capacity. It corresponds to the information that has been confirmed by the system operator. The identification of an agreement associated with a time series.</td>
</tr>
<tr>
<td>12</td>
<td>[0..1]</td>
<td>connectingLine_RegisteredResource.mRID ResourceID_String</td>
<td>The unique identification of a resource. In the ESMP context, the “model authority” is defined as an authorized issuing office that provides an agreed identification coding scheme for market participant, domain, measurement point, resources (generator, lines, substations, etc.) identification. Master resource identifier issued by a model authority. The mRID is globally unique within an exchange context. Global uniqueness is easily achieved by using a UUID for the mRID. It is strongly recommended to do this. For CIMXML data files in RDF syntax, the mRID is mapped to rdf:ID or rdf:about attributes that identify CIM object elements. -- The identification of a resource associated with a TimeSeries.</td>
</tr>
</tbody>
</table>
Table 6 shows all association ends of Confirmed_TimeSeries with other classes.

### Table 6 - Association ends of Confirmation report assembly model::Confirmed_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 time interval and resolution for a period associated with a TimeSeries. Association Based On: Confirmation report contextual model::Confirmed_TimeSeries.[] ----- Confirmation report contextual model::Series_Period.Period[0..*]</td>
</tr>
<tr>
<td>16</td>
<td>0..*</td>
<td>Reason</td>
<td>The reason code provides the status of the differences and confirmation. For errors as many reason elements as necessary may be used. An example of reason codes could be: A20: Time series fully rejected; A26: Default time series applied; A30: Imposed Time series from nominated party’s time series (party identified in reason text); A63: Time series modified. The reason information associated with a TimeSeries providing motivation information. Association Based On: Confirmation report contextual model::Confirmed_TimeSeries.[] ----- Confirmation report contextual model::Reason.Reason[0..*]</td>
</tr>
</tbody>
</table>

## 2.2.3.3 Imposed_TimeSeries

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

Note: If the quantity values of an already accepted time series were changed, it is not an imposed time series but a confirmed time series for instance with reason code A63 (modified time series).
### Table 7 - Attributes of Confirmation report assembly model::Imposed_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>version ESMPVersion_String</td>
<td>The identification of the version of the time series.</td>
</tr>
<tr>
<td>2</td>
<td>[1..1]</td>
<td>businessType BusinessKind_String</td>
<td>The identification of the nature of the time series.</td>
</tr>
<tr>
<td>3</td>
<td>[1..1]</td>
<td>product EnergyProductKind_String</td>
<td>The identification of the nature of an energy product such as power, energy, reactive power, etc.</td>
</tr>
<tr>
<td>4</td>
<td>[1..1]</td>
<td>objectAggregation ObjectAggregationKind_String</td>
<td>The identification of the domain that is the common denominator used to aggregate a time series.</td>
</tr>
<tr>
<td>5</td>
<td>[0..1]</td>
<td>in_Domain.mRID AreaID_String</td>
<td>The unique identification of the domain. --- The identification of the in area of the time series that has been imposed by the system operator with the coding scheme used in the original transmission. The domain associated with a TimeSeries.</td>
</tr>
<tr>
<td>6</td>
<td>[0..1]</td>
<td>out_Domain.mRID AreaID_String</td>
<td>The unique identification of the domain. --- The identification of the out area of the time series that has been imposed by the system operator with the coding scheme used in the original transmission. The domain associated with a TimeSeries.</td>
</tr>
<tr>
<td>7</td>
<td>[0..1]</td>
<td>marketEvaluationPoint.mRID MeasurementPointID_String</td>
<td>A unique identification of the measurement point. --- The identification of the location where one or more products are metered of the time series that has been imposed by the system operator with the coding scheme used and sub-value if it was in the original transmission. The identification of a measurement point associated with a TimeSeries.</td>
</tr>
<tr>
<td>8</td>
<td>[0..1]</td>
<td>in_MarketParticipant.mRID PartyID_String</td>
<td>The identification of a party in the energy market. --- The identification of the party, which is putting the product into the area, of the time series that has been imposed by the system operator with the coding scheme used in the original transmission. The identification of a market participant associated with a TimeSeries.</td>
</tr>
<tr>
<td>9</td>
<td>[0..1]</td>
<td>out_MarketParticipant.mRID PartyID_String</td>
<td>The identification of a party in the energy market. --- The identification of the party, which is taking the product out of the area, of the time series that has been imposed by the system operator with the coding scheme used if it was in the original transmission. The identification of a market participant associated with a TimeSeries.</td>
</tr>
<tr>
<td>10</td>
<td>[0..1]</td>
<td>marketAgreement.type CapacityContractKind_String</td>
<td>The specification of the kind of the agreement, e.g. long term, daily contract. --- This information identifies the capacity agreement made between the parties for the sale or purchase of capacity. It corresponds to the information that has been imposed by the system operator. The identification of an agreement associated with a time series.</td>
</tr>
</tbody>
</table>
Table 8 shows all association ends of Imposed_TimeSeries with other classes.

### Table 8 - Association ends of Confirmation report assembly

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

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

Table 9 shows all attributes of Point.

Table 9 - Attributes of Confirmation report 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</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</td>
<td>The principal quantity identified for a point.</td>
</tr>
</tbody>
</table>

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

Table 10 - Association ends of Confirmation report 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>2</td>
<td>[0..*]</td>
<td>Reason</td>
<td>The reason code provides the status of the differences and confirmation. For errors as many reason elements as necessary may be used. An example of reason codes could be: A43: Quantity increased; A44: Quantity decreased; A45: Default quantity applied. The Reason information associated with a Point providing motivation information. Association Based On: Confirmation report contextual model::Point.[] Confirmation report contextual model::Reason.Reason[0..*]</td>
</tr>
</tbody>
</table>

2.2.3.5 Reason

The motivation of an act.

Table 11 shows all attributes of Reason.

Table 11 - Attributes of Confirmation report 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</td>
<td>The motivation of an act in coded form.</td>
</tr>
<tr>
<td>1</td>
<td>[0..1]</td>
<td>text</td>
<td>The textual explanation corresponding to the reason code.</td>
</tr>
</tbody>
</table>

2.2.3.6 Series_Period

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

Table 12 shows all attributes of Series_Period.
Table 12 - Attributes of Confirmation report 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 13 shows all association ends of Series_Period with other classes.

Table 13 - Association ends of Confirmation report 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: Confirmation report contextual model::Series_Period[]. Confirmation report contextual model::Point.Point[1..*]</td>
</tr>
</tbody>
</table>

2.2.4 Datatypes

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

- ESMP_DateTimeInterval compound
- AreaID_String datatype, codelist CodingSchemeTypeList
- BusinessKind_String datatype, codelist BusinessTypeList
- CapacityContractKind_String datatype, codelist ContractTypeList
- CurveType_String datatype, codelist CurveTypeList
- EnergyProductKind_String datatype, codelist EnergyProductTypeList
- ESMP_DateTime datatype
- ESMPVersion_String datatype
- ID_String datatype
- MarketRoleKind_String datatype, codelist RoleTypeList
- MeasurementPointID_String datatype, codelist CodingSchemeTypeList
- MeasurementUnitKind_String datatype, codelist UnitOfMeasureTypeList
- MessageKind_String datatype, codelist MessageTypeList
- ObjectAggregationKind_String datatype, codelist ObjectAggregationTypeList
- 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 Confirmation_MarketDocument XML schema structure

Figure 3 - Confirmation_MarketDocument schema structure
2.2.6 Confirmation_MarketDocument XML schema

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

```xml
<xsd:schema version="1.0" encoding="utf-8">
  <xs:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema">
    <xs:import namespace="urn:entsoe-eu-wgedi-codelists" schemaLocation="urn-entsoe-eu-wgedi-codelists.xsd"/>
    <xs:element name="Confirmation_MarketDocument" type="Confirmation_MarketDocument"/>
    <xs:restriction base="xsd:ID" name="Confirmation_MarketDocumentID">
      <xs:maxLength value="60"/>
    </xs:restriction>
    <xs:complexType name="ESMP_DateTime">
      <xs:restriction base="xsd:dateTime">
        <xs:pattern value="(\d{4})-(\d{2})-(\d{2})T(\d{2}):(\d{2}):(\d{2})"/>
      </xs:restriction>
    </xs:complexType>
    <xs:complexType name="Confirmation_MarketDocument">
      <xs:complexContent>
        <xs:extension base="esmp:ESMP_Base">
          <xs:sequence>
            <xs:element name="ConfirmationID">
              <xs:simpleType>
              </xs:simpleType>
            </xs:element>
            <xs:element name="MessageKind">
              <xs:simpleType>
                <xs:restriction base="xsd:string">MessageKind_String</xs:restriction>
              </xs:simpleType>
            </xs:element>
            <xs:element name="ESMP_DateTime">
              <xs:simpleType>
                <xs:restriction base="xsd:dateTime">ESMP_DateTime</xs:restriction>
              </xs:simpleType>
            </xs:element>
          </xs:sequence>
        </xs:extension>
      </xs:complexContent>
    </xs:complexType>
    <xs:complexType name="Confirmation_MarketDocument">
      <xs:complexContent>
        <xs:extension base="esmp:ESMP_Base">
          <xs:sequence>
            <xs:element name="ConfirmationID">
              <xs:simpleType>
              </xs:simpleType>
            </xs:element>
            <xs:element name="MessageKind">
              <xs:simpleType>
                <xs:restriction base="xsd:string">MessageKind_String</xs:restriction>
              </xs:simpleType>
            </xs:element>
            <xs:element name="ESMP_DateTime">
              <xs:simpleType>
                <xs:restriction base="xsd:dateTime">ESMP_DateTime</xs:restriction>
              </xs:simpleType>
            </xs:element>
          </xs:sequence>
        </xs:extension>
      </xs:complexContent>
    </xs:complexType>
  </xs:schema>
</xsd:schema>
```
<xs:element name="process.processType">
  <xs:simpleType name="ProcessKind_String" type="cim16#Process.processType"/>
  <xs:complexType name="Reason">
    <xs:attribute name="Reason" type="cim16#Reason" maxOccurs="unbounded"/>
  </xs:complexType>
  <xs:complexType name="Imposed_TimeSeries">
    <xs:attribute name="Imposed_TimeSeries" maxOccurs="0" maxOccurs="unbounded"/>
  </xs:complexType>
  <xs:complexType name="Confirmed_TimeSeries">
    <xs:attribute name="Confirmed_TimeSeries" maxOccurs="0" maxOccurs="unbounded"/>
  </xs:complexType>
  <xs:element name="Confirmed_TimeSeries" type="Confirmed_TimeSeries"/>
  <xs:element name="Imposed_TimeSeries" type="Imposed_TimeSeries"/>
</xs:element>
<xs:extension base="ResourceID_String-base">
  <xs:attribute name="codingScheme" type="ecl:CodingSchemeTypeList" use="required"/>
</xs:extension>
<xs:simpleType name="MeasurementUnitKind_String">
  <sawsdl:modelReference http://iec.ch/TC57/2013/CIM-schema-cim16#String/>
  <xs:restriction base="ecl:UnitOfMeasureTypeList"/>
</xs:simpleType>
<xs:simpleType name="CurveType_String">
  <sawsdl:modelReference http://iec.ch/TC57/2013/CIM-schema-cim16#String/>
  <xs:restriction base="ecl:CurveTypeList"/>
</xs:simpleType>
<xs:simpleType name="Confirmed_TimeSeries">
  <xs:restriction base="ecl:ConfirmedTimeSeries"/>
</xs:simpleType>
<xs:complexType name="ObjectAggregationKind_String">
  <minOccurs="1" sawsdl:modelReference http://iec.ch/TC57/2013/CIM-schema-cim16#IdentifiedObject.mRID/>
</xs:complexType>
<xs:complexType name="AreaID_String">
  <minOccurs="0" maxOccurs="1" sawsdl:modelReference http://iec.ch/TC57/2013/CIM-schema-cim16#IdentifiedObject.mRID/>
</xs:complexType>
<xs:complexType name="MarketEvaluationPointID_String">
  <minOccurs="0" maxOccurs="1" sawsdl:modelReference http://iec.ch/TC57/2013/CIM-schema-cim16#IdentifiedObject.mRID/>
</xs:complexType>
<xs:complexType name="MarketParticipantID_String">
  <minOccurs="0" maxOccurs="1" sawsdl:modelReference http://iec.ch/TC57/2013/CIM-schema-cim16#IdentifiedObject.mRID/>
</xs:complexType>
<xs:complexType name="CapacityContractKind_String">
  <minOccurs="0" maxOccurs="1" sawsdl:modelReference http://iec.ch/TC57/2013/CIM-schema-cim16#Document.type"/>
</xs:complexType>
<xs:element name="connectingLine_RegisteredResource.mRID">
  <xs:schema name="cim16#IdentifiedObject.mRID"/>
  <xs:schema name="sawsdl:modelReference"/>
  <xs:type name="ResourceID_String" minOccurs="0" maxOccurs="1"/>
  <xs:schema name="http://iec.ch/TC57/2013/CIM-schema-cim16#IdentifiedObject.mRID"/>
</xs:element>

<xs:element name="measurement_Unit.name">
  <xs:schema name="cim16#IdentifiedObject.mRID"/>
  <xs:schema name="sawsdl:modelReference"/>
  <xs:schema name="http://iec.ch/TC57/2013/CIM-schema-cim16#Unit.name"/>
</xs:element>

<xs:element name="CurveType_String">
  <xs:schema name="http://iec.ch/TC57/2013/CIM-schema-cim16#TimeSeries.curveType"/>
  <xs:maxOccurs>unbounded</xs:maxOccurs>
  <xs:minOccurs>0</xs:minOccurs>
</xs:element>

<xs:element name="Period">
  <xs:minOccurs>0</xs:minOccurs>
</xs:element>

<xs:element name="Reason">
</xs:element>

<xs:element name="Imposed_TimeSeries">
  <xs:schema name="http://iec.ch/TC57/2013/CIM-schema-cim16#TimeSeries"/>
  <xs:minOccurs>0</xs:minOccurs>
  <xs:maxOccurs>1</xs:maxOccurs>
</xs:element>

<xs:sequence>
  <xs:element name="mRID" type="ID_String" minOccurs="1" maxOccurs="1"/>
  <xs:schema name="http://iec.ch/TC57/2013/CIM-schema-cim16#IdentifiedObject.mRID"/>
  <xs:schema name="http://iec.ch/TC57/2013/CIM-schema-cim16#Unit.name"/>
</xs:sequence>

<xs:element name="version" type="ESMPVersion_String"/>

<xs:element name="businessType" type="BusinessKind_String"/>

<xs:element name="product" type="EnergyProductKind_String"/>

<xs:element name="objectAggregation" type="ObjectAggregationKind_String" minOccurs="1" maxOccurs="1"/>

<xs:element name="AreaID_String" type="AreaID_String" minOccurs="0" maxOccurs="1"/>

<xs:element name="AreaID_String" type="AreaID_String" minOccurs="0" maxOccurs="1"/>

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

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

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

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

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

<xs:element name="MeasurementPointID_String" type="measurement_Unit.name"/>

<xs:element name="marketEvaluationPoint.mRID">
  <xs:schema name="http://iec.ch/TC57/2013/CIM-schema-cim16#IdentifiedObject.mRID"/>
</xs:element>

<xs:element name="Reason">
</xs:element>

<xs:element name="resourceID" type="AreaID_String"/>

<xs:element name="resourceID" type="AreaID_String"/>

<xs:element name="resourceID" type="AreaID_String"/>

<xs:element name="marketEvaluationPoint.mRID">
  <xs:schema name="http://iec.ch/TC57/2013/CIM-schema-cim16#IdentifiedObject.mRID"/>
</xs:element>

<xs:element name="Reason">
</xs:element>

<xs:element name="resourceID" type="AreaID_String"/>

<xs:element name="resourceID" type="AreaID_String"/>

<xs:element name="resourceID" type="AreaID_String"/>
<xs:element name="marketAgreement.type" type="CapacityContractKind_String" minOccurs="0" maxOccurs="1"/>
<xs:element name="marketAgreement.mRID" type="ID_String" minOccurs="0" maxOccurs="1"/>
<sawsdl:modelReference>http://iec.ch/TC57/2013/CIM-schema-cim16#IdentifiedObject.mRID</sawsdl:modelReference>
<xs:element name="connectingLine_RegisteredResource.mRID" type="ResourceID_String" minOccurs="0" maxOccurs="1"/>
<sawsdl:modelReference>http://iec.ch/TC57/2013/CIM-schema-cim16#IdentifiedObject.mRID</sawsdl:modelReference>
<xs:element name="measurement_Unit.name" type="MeasurementUnitKind_String" minOccurs="1" maxOccurs="1"/>
<sawsdl:modelReference>http://iec.ch/TC57/2013/CIM-schema-cim16#Unit.name</sawsdl:modelReference>
<xs:element name="curveType" type="CurveType_String" minOccurs="0" maxOccurs="1"/>
<sawsdl:modelReference>http://iec.ch/TC57/2013/CIM-schema-cim16#TimeSeries.curveType</sawsdl:modelReference>
<xs:element name="Period" type="Series_Period" minOccurs="1" maxOccurs="unbounded"/>
<xs:element name="Reason" type="Reason" minOccurs="1" maxOccurs="unbounded"/>
</xs:sequence>
</xs:complexType>
<xs:complexType name="Position_Integer">
<xs:simpleType>
<xs:restriction base="xs:integer">
<xs:maxInclusive value="999999"/>
<xs:minInclusive value="1"/>
</xs:restriction>
</xs:simpleType>
</xs:complexType>
</xs:simpleType>
<xs:complexType name="Point">
<xs:simpleType>
<xs:restriction base="ecl:ReasonCodeTypeList">
<xs:maxOccurs value="1"/>
</xs:restriction>
</xs:simpleType>
</xs:complexType>
</xs:complexType>
</xs:simpleType>
</xs:complexType>
</xs:sequence>
</xs:complexType>
<xs:complexType name="ReasonCode_String">
<xs:simpleType>
<xs:restriction base="ecl:ReasonCodeTypeList"/>
</xs:simpleType>
</xs:complexType>
</xs:complexType>
</xs:complexType>
</xs:sequence>
</xs:complexType>
<xs:complexType name="Reason">
<xs:simpleType>
<xs:restriction base="xs:string">
<xs:maxLength value="512"/>
</xs:restriction>
</xs:simpleType>
</xs:complexType>
</xs:complexType>
</xs:sequence>
</xs:complexType>
</sawsdl:modelReference>
<xs:sequence>
  <xs:element name="code" type="ReasonCode_String" minOccurs="1" maxOccurs="1"
  <xs:element name="text" type="ReasonText_String" minOccurs="0" maxOccurs="1"
</xs:sequence>
</xs:complexType>

<xs:complexType name="Series_Period"
  sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#Period">
  <xs:sequence>
    <xs:element name="timeInterval" type="ESMP_DateTimeInterval"
      minOccurs="1" maxOccurs="1" sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-
      schema-cim16#Period.timeInterval"/>
    <xs:element name="resolution" type="xs:duration" minOccurs="1" maxOccurs="1"
      sawsdl:modelReference="http://iec.ch/TC57/2013/CIM-schema-cim16#Period.resolution"/>
    <xs:element name="Point" type="Point" minOccurs="1" maxOccurs="unbounded"
  </xs:sequence>
</xs:complexType>
</xs:schema>