



# **ETSO Scheduling System**

**(ESS)**

## **Implementation Guide**

**Version : 3**

**Release : 1**

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### **REVISION HISTORY**

| <b>Version</b> | <b>Release</b> | <b>Date</b> | <b>Paragraphs</b>                                | <b>Comments</b>   |
|----------------|----------------|-------------|--|---|
| 0              | 3              | 2001-08-04  |  | Pilot test version  |
| 1              | 0              | 2002-03-27  |  | Initial release of document   |
| 1              | 1              | 2002-05-14  |  | General revision with clarifying text after Steering Committee comments.  |
| 2              | 0              | 2002-11-10  | 3.1, 3.2, 7.1, 7.2, 7.3, 7.4, 7.4.2 (new), 8.2.1 | Added new text, modified flow diagram and added a message type to cater for intermediate confirmations  |
|                |                |             | 3.3  | Revised ground rules 9 and 10 to cater for the addition of a resolution attribute. Added ground rule 11 to ensure the coherence of the time interval period. Other ground rules shifted down by 1 |
|                |                |             | 4.1, 5.1, 6.1, 7.1                               | Revised information model to incorporate size optimization and improvement changes and to make the sender identification key.   |
|                |                |             | 4.2, 5.2, 6.2, 7.2                               | Incorporated model changes into DTD. Modified the constant attribute “value” to “v” for optimization. Separated DTD from data instance and created new sub-paragraph for the data instance.       |
|                |                |             | 4.3.1, 4.3.3                                     | Corrected business type names.  |
|                |                |             | 4.3.4  | Adjusted message acceptance and rejection criteria.   |
|                |                |             | 4.3.5, 4.5                                       | Added the case for treating an empty message  |
|                |                |             | 4.7, 4.8, 6.6, 6.7, 7.6 to 7.8                   | New paragraphs to explain the new model classes.  |
|                |                |             | 5.3  | Clarified text.   |
|                |                |             | 5.5, 5.5.1, 6.4, 6.4.1, 7.4, 7.4.1               | Clarified reason codes.   |
|                |                |             | 5.6, 5.7   | Introduced the case of imbalance global position.   |

| Version | Release | Date       | Paragraphs         | Comments   |
|---------|---------|------------|--------------------|--|
|         |         |            | 7.3                | Introduced the notion of an imposed time series. Also realigned the confirmed series to indicate the complete time series information. Replaced the confirmed message identification information in the message header |
|         |         |            | 8.2.4              | Deleted non-preferred coding scheme codes. Introduced country coding scheme and the possibility to create bi-laterally agreed coding schemes.  |
|         |         |            | 8.2.5              | Corrected definitions.   |
|         |         |            | 8.2.7              | Clarified reason codes and added new codes.  |
|         |         |            | 9                  | Updated the core components  |
|         |         |            | 10                 | Deleted paragraph 10 concerning the use if a DTD which made use exclusively of the UID. This is no longer relevant.  |
|         |         |            | 11                 | Introduced relative addresses. Added file naming convention.   |
|         |         |            | 12                 | Deleted the content of the Role model as it appears in a standalone document. Introduced uniquely the situation of the ESS within the role model.  |
| 2       | 1       | 2002-12-22 | General            | Removed all DTDs to separate section.<br>Minor editorial corrections   |
|         |         |            |                    |  |
| 2       | 2       | 2003-02-12 | 4, 5, 6, 7         | Corrected chapter titles   |
|         |         |            | 8                  | Correction of word “CodingScheme” to “codingScheme”. Change of “\” to “/”.   |
|         |         |            | 3.2                | Correct figure 7 to ensure that the transmission process can start.  |
|         |         |            | 4.3.6              | Clarify the significance of “sender” in the message header.  |
|         |         |            | 6.1                | Corrected model to show that “message sender identification” contained a coding scheme.  |
|         |         |            | 7.1, 7.2           | Removed constraint on imposed times series and time series confirmation  |
|         |         |            | 8.1, 8.3, 8.5, 8.7 | Changed release number   |
|         |         |            | 8.2, 8.6, 8.8      | Correct errors in examples (period of 1 hour)  |
|         |         |            | 9                  | Delete section 9 (code lists) and reproduce it as a separate document  |
|         |         |            | 10.1 (now 9.1)     | Corrected spelling errors  |
|         |         |            | 11.3 (now 10.3)    | Corrected directory references   |
|         |         |            |                    |  |

| Version | Release | Date       | Paragraphs | Comments   |
|---------|---------|------------|------------|--|
| 2       | 3       | 2003-04-29 | 6.3.1      | Corrected erroneous mention of the reason code at the header level.  |
|         |         |            | 8.1        | Modified DTD to remove the code list from the process type. This will provide more flexibility to the message and version 2 Release 2 remains 100% upwards compatible.   |
|         |         |            | 8.1 to 8.8 | Changed Release number   |
|         |         |            | 8.6        | Removed Reason code in header level from example   |
|         |         |            | 8.5, 8.7   | Corrected “SubValue” to read “subValue   |
|         |         |            |            |  |
| 3       | 0       | 2006-07-04 | General    | <p>Replaced the use of the word “message” by “document” or “electronic document” where applicable. <i>(Note: the names in the schemas have not been changed for “upwards compatibility” purposes)</i></p> <p>Introduced a definition of Party and provided examples of Balance Responsible Party (Section 3.3)</p> <p>Revised the text concerning the “global position” (Section 3.4)</p> <p>Added some examples (Section 4.2.6)</p> <p>Some clarification has been added to the ETSO intra day specification (Section 4.2.2.2)</p> <p>Revised the Acknowledgement document to make use of version 4.0 to ensure compatibility throughout the ETSO processes and removed the section from the ESS document to make reference to the Acknowledgement document describing version 4.0 (Section 5)</p> <p>Revised document to put the accent on the use of Schemas (generated automatically from the UML diagram). (Section 8)</p> <p>Modified the transmission rules to allow document instances without reference to a DTD or Schema (Section 9)</p> <p>Removed ETSO core components paragraph from document since it can be found in a separate document</p> |
|         |         |            | 8          | Added 4 new attributes to the Schedule document header ( <i>Domain, Subject Party, Subject Role, Matching Period</i> ) to cater for the identification of the subject of the document and its scope within a schedule time series  |

| Version | Release | Date       | Paragraphs     | Comments   |
|---------|---------|------------|----------------|--|
|         |         |            | 10.3           | Added header information to cater for the transmission of schedules with historical information (Matching Period).<br>Restructure section to Add information relative to schemas.<br>Restructured to introduce modified transmission rules             |
|         |         |            |                | The General sequence diagramme has been modified to identify the interaction between the ECAN process the ESS process, the ESP process and the UCTE process. The identified processes in question will no longer be covered in the ESS process itself. |
|         |         |            |                |  |
| 3       | 1       | 2006-10-13 | <b>5.2.2.2</b> | <b><i>Introduced modifications of the Intraday group after agreement</i></b>   |

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## REFERENCE DOCUMENTS.

1. The ETSO Role Model.
2. A Common Identification System for The Energy Industry, The Energy Identification Coding Scheme – EIC.
3. The ETSO Code List.
4. The ETSO Acknowledgement document
5. The ETSO Core Component document
6. The ETSO Modelling Methodology
7. The ETSO XML Syntax Implementation for the Automation of Data Interchange
8. The ETSO Settlement Process Document
9. The ETSO Capacity Allocation and Nomination document
10. The UTCE System Operator to System Operator document

### Informative Note:

ETSO TF 14 has experienced several misunderstandings with the use of the word “Message” these being caused principally by the belief that this included message enveloping which is not a part of the ESS. Because of this it has been decided to change the word “Message” by “Document” or “Electronic Document” in order to stress the fact that it is the electronic content that is being defined and not any specific enveloping requirements necessary for telecommunications purposes.

The XML element names have not been changed in the interests of upwards compatibility. However, all future specifications developed by ETSO will only use the term “Document”.

## **1. OBJECTIVE**

The objective of this implementation guide is to make it possible for software vendors to develop an IT application for market players that can exchange electricity market schedules, such as day ahead or intra day schedules, to all related parties in all countries.

The implementation guide is one of the building blocks for using UML (Unified Modelling Language) based techniques in defining processes and electronic documents for interchange between actors in the electrical industry in Europe.

The initial conception of the guide has been based on the day ahead energy scheduling process in order to obtain a more generic specification of schedule process management.

This process is very closely related to other processes such as imbalance settlement, other scheduling processes, cross border tariffs, capacity allocation, etc. The procedures, electronic documents and methods described in the implementation guide may be partially or fully applicable to these processes.

This guideline can be used as a model for using XML (eXtended Markup Language) technology in all related processes.

The main concern of the TSOs is on the secure and reliable operation while facilitating electricity market procedures. The methods, components and procedures described in this guide can be the basis of including some operational requirements of UCTE, Nordel and other constituents of ETSO.

It is the intention of the ETSO TF14 to make this implementation guide as the platform to be used for as many as related processes as possible. The ETSO TF14 objective is that the different market participants and associations use this platform in a co-ordinated manner.

The guide is targeted basically towards business-to-business application interfaces using the full power of the acknowledgment process. However, it may be equally put into place in a more user-orientated fashion through a web-based service where the key elements of the acknowledgement process are implicit in the service itself.

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## **2. THIRD PARTY ACCESS ENERGY MARKET – GENERAL OVERVIEW**

The electricity market in Europe is now opening. Some countries have opened the market completely and others have started the process. A central part of any national legal requirements in the electricity market is that each market participant in the market shall be in balance. This means that the amount of electricity produced and consumed through bilateral agreements are balanced. The procedure to calculate this balance and the invoicing of any differences is called “balance settlement”.

The full balancing process can be broken down into three phases:

1. A planning phase, where balance responsible parties (e.g. trade responsible, production responsible, consumption responsible parties, etc.) calculate in advance the consumption of all involved parties for the day ahead. During or after this phase the system operator informs each balance responsible party of what has been accepted of their schedules and informs the entity responsible for imbalance settlement, called the “imbalance settlement responsible” of all the schedules in question.
2. An operation phase, where the schedule that has been determined during the planning phase is executed. The system operator, to ensure system balance at any moment, handles any deviations between production, consumption and unforeseen congestion.
3. A settlement phase, where following the date of operation, the metered data aggregator sends the data to the imbalance settlement responsible. The imbalance settlement responsible, along with complementary data received from other sources, then carries out the imbalance settlement itself.

**The electronic documents defined in this document cover the first phase of the balance settlement process, the planning phase.**

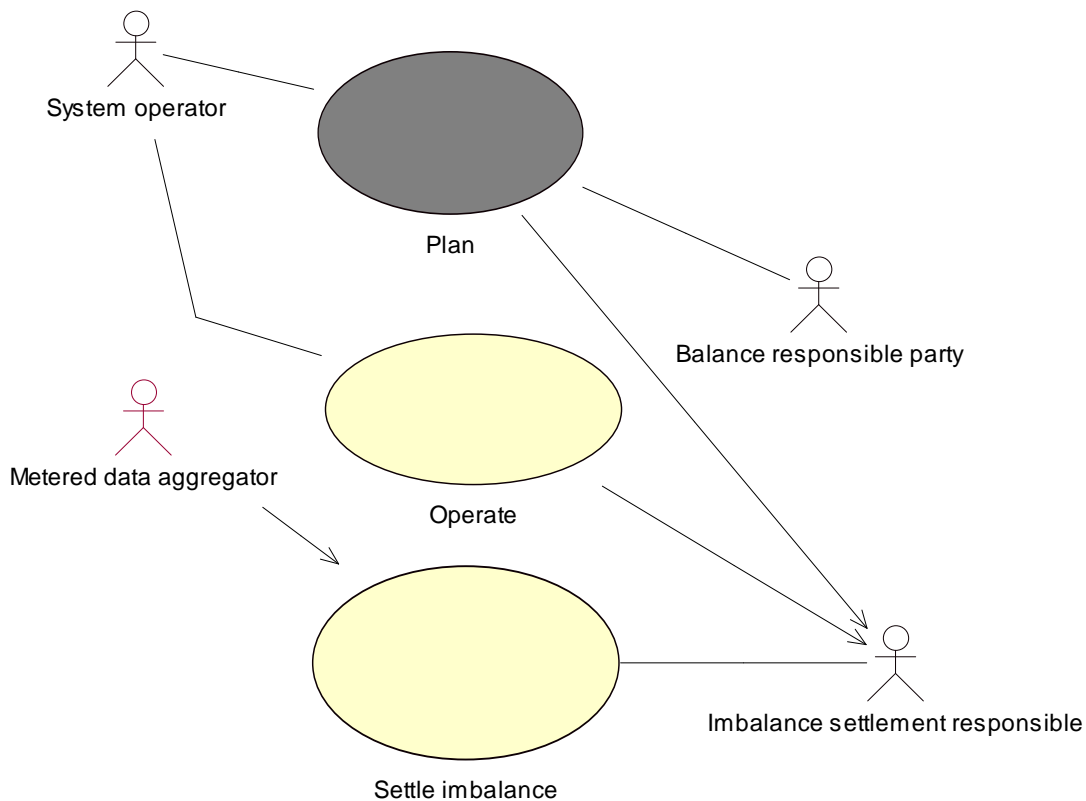
It provides a standard enabling a uniform layout for the transmission of scheduling data between the European electricity system operators, producers, suppliers and traders and all imbalance settlement responsible organizations. This shall ensure a common interface between different software solutions.

### **2.1 Definition**

The electronic documents defined in this document enable balance responsible parties (e.g. trade responsible, production responsible, consumption responsible parties, etc.) to send their schedules (consumption, production, capacity, etc.) to the system operators for the day ahead. The document may also be used for the transmission of intra day schedules associated with a day ahead schedule.

## 2.2 Operational scenario

### 2.2.1 The overall context



**Figure 1: The balancing process perspective**

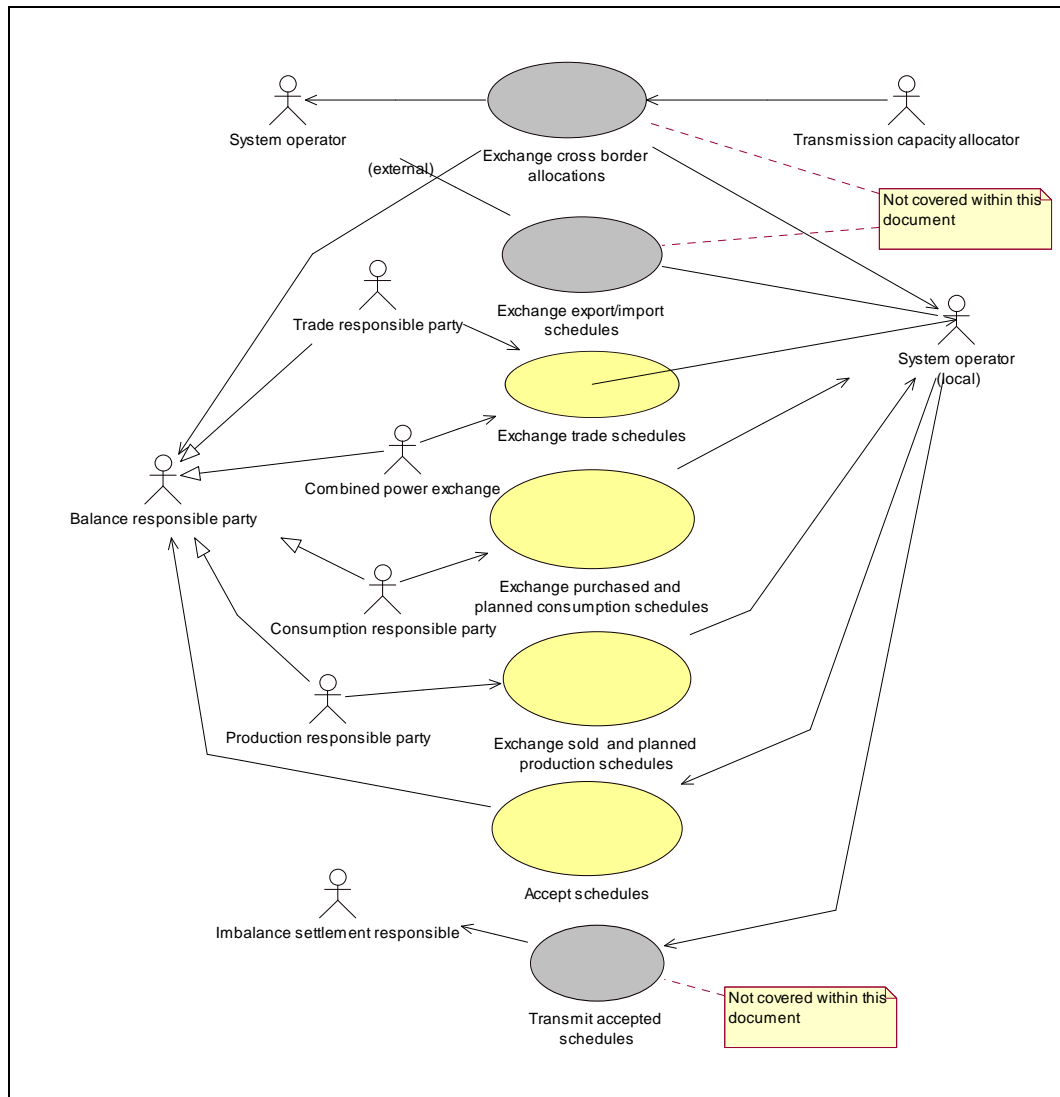
Within this perspective there are three principal activities which can be identified. These, as shown in figure 1 are

1. **The planning activity that is the subject matter of this implementation guide and will be further detailed below.** The principal deliverable of this phase is a set of time series schedules that have gone through their validation process (conformity, matching, plausibility and acceptance).
2. The operational activity that ensures that the different schedules are correctly implemented. This means that the planned production is available to provide the planned consumption. It also has to ensure that any deviations from the various schedules (production, bilateral trades, consumption, etc.) are catered for.
3. The imbalance settlement activity that takes place once everything has been completed. It may be spread over a defined lapse of time. It is composed of three basic activities. The first activity receives all the schedules that have been agreed as well as market or agreed prices. The second activity recuperates the measured values and the measured deviations (ancillary services - regulation data) during operational phase of the delivered products. The final activity reconciles these values and identifies the imbalances.



In addition there is a pricing activity that is normally completely independent of the technical and the online processes. It is there to provide the rules to enable the involved parties to manage their financial risks. At the end of the day the same activity is used to determine the price of all deviations from the schedule. This activity has not been identified in Figure 1 since it is essentially an independent activity.

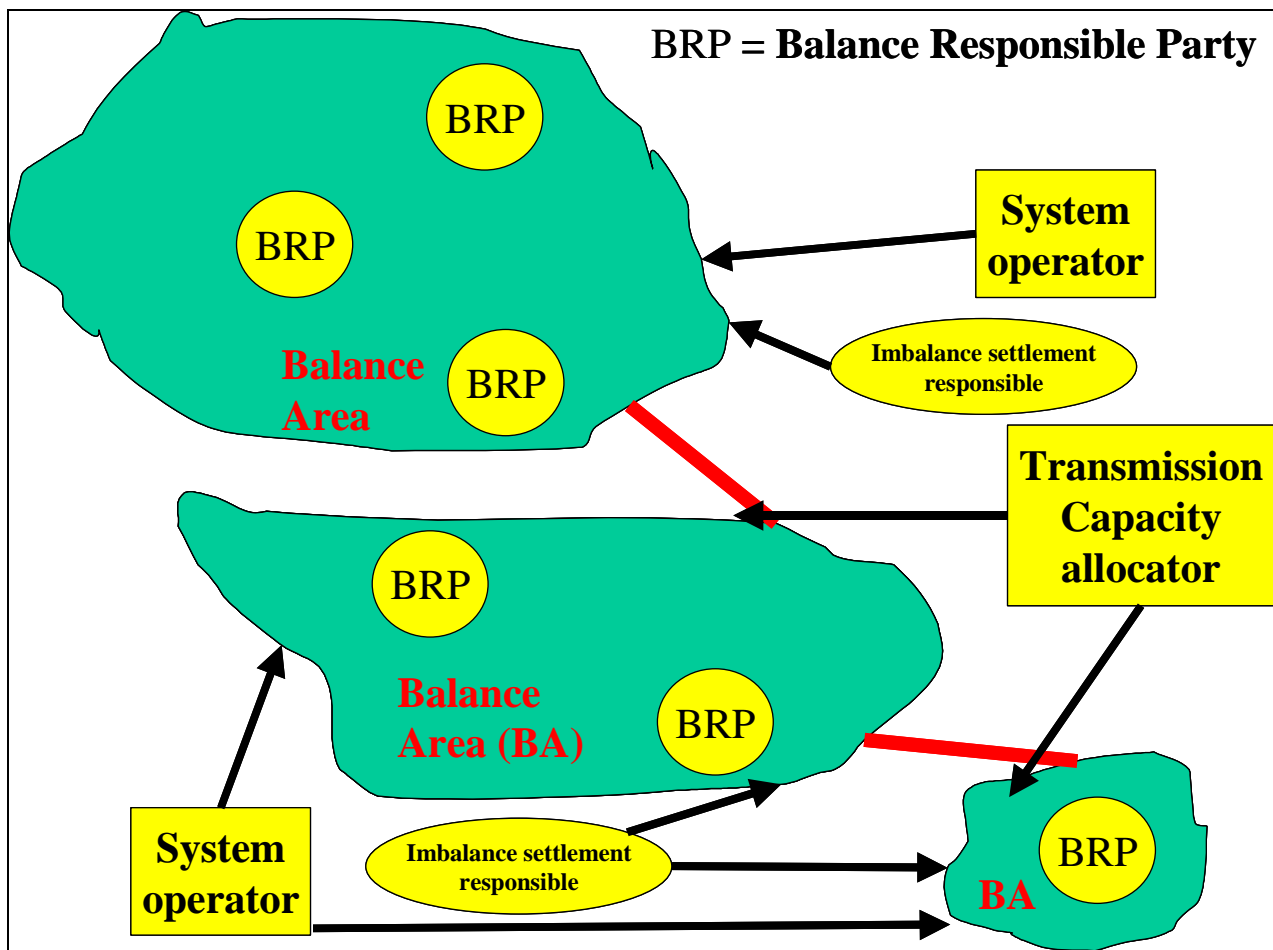
### 2.2.2 Breakdown of the planning phase



**Figure 2: Information exchange during the planning phase**

The planning phase, outlined in Figure 2, concerns principally the schedules supplied by the different balance responsible and system operator roles for a given balance area or a group of balance areas. It also deals with the exchange schedules between two balance areas via system operators and transmission capacity allocators which is outside of the scope of this Implementation Guide. The resulting schedules of all these information flows are transmitted to the imbalance settlement responsible after validation at the system operator level.

The diagram in Figure 3 outlines the different domains of responsibility of the principal actors that play a role within this guide. The balance responsible parties operate within one or several balance areas, a system operator ensures the correct operation of one or several balance areas. Finally the transmission capacity allocator ensures the allocation of transmission capacity between balance areas.



**Figure 3: Domains of responsibility**

The basic principle upon which this phase has been based is that all the trades between two balance responsible parties must be notified and coherent. For each balance area all the “in” flows should balance with all the “out” flows. In the case of imbalance, the system operator must manage the imbalance prior to the operation phase.

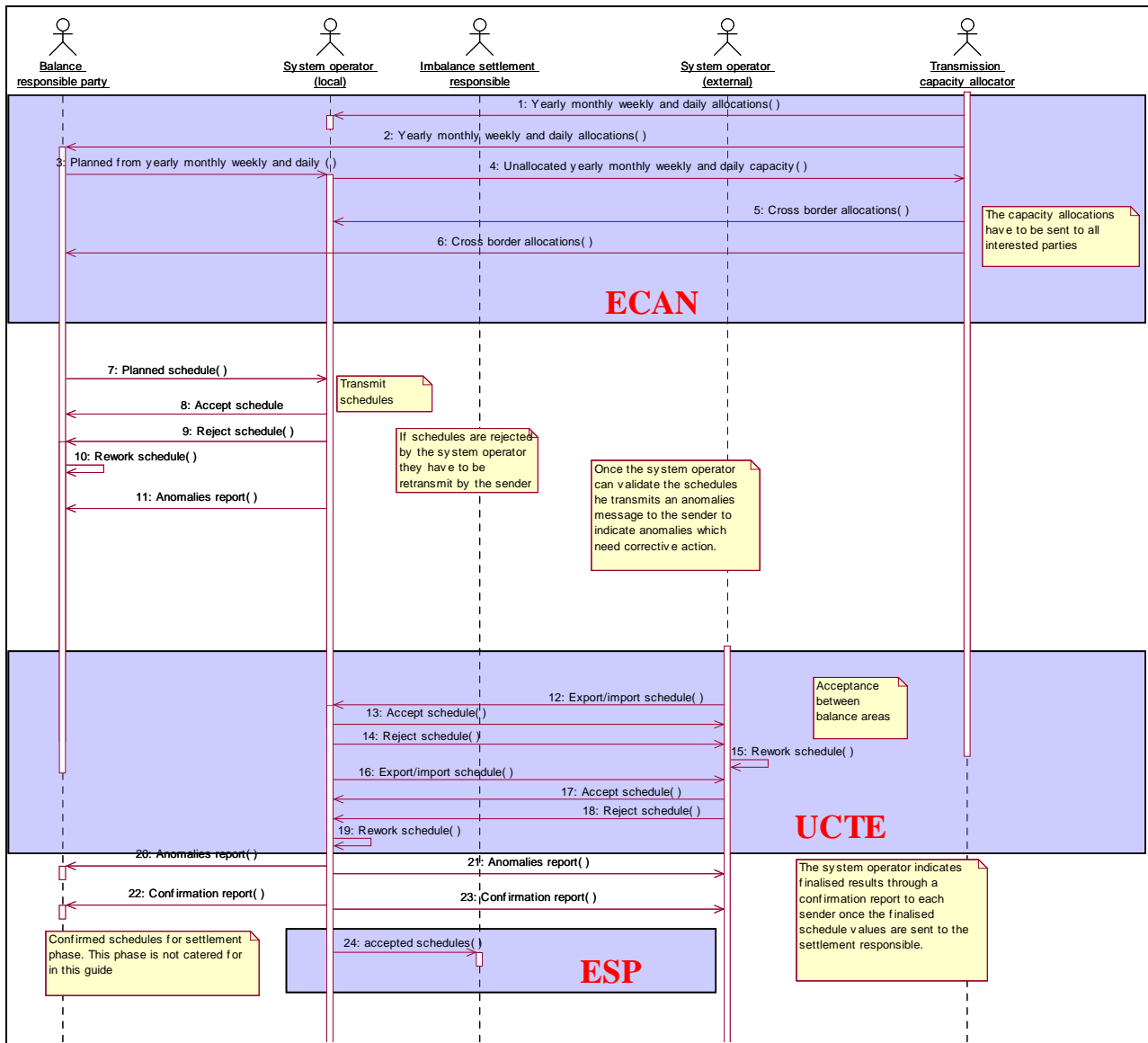
This guide covers the gathering of all the information necessary for the balance process for the trade schedules.

The functions concerning the transmission of purchased and sold unit schedules and their acceptance are covered but are only partially described. The functions not completely covered refer to the imbalance settlement process where consumption or production under or overheads cannot be tied to an individual balance responsible party. However, at the macroscopic level these are completely covered.

The capacity allocation process description can be found in the ETSO Capacity Allocation and Nomination process (ECAN) implementation guide. The detailed schedules for resources and reserves can be found in the ETSO Reserve Resource Planning process (ERRP) implementation guide. The operational and imbalance settlement activities can be found in the ETSO Settlement Process (ESP) implementation guide.

### 3. SCHEDULE SYSTEM INFORMATION REQUIREMENTS

#### 3.1 Process flow



**Figure 4: Typical sequence diagram of the information flow from the local system operator perspective**

The sequence diagram in Figure 4 outlines the information that is exchanged between the different actors in the planning phase of the electricity market process. The information flows concern essentially the day ahead scheduling process as seen from a balance area administered by a local system operator and connected to another balance area administered by an external System operator (as depicted in figure 3). The shaded areas indicate phases within the process which are detailed within other implementation guides (ETSO Capacity And Nomination process (ECAN); The System Operator-System Operator exchanges (UCTE); and ETSO Settlement Process (ESP).

Trade can take place between the balance areas and the transmission capacity between the areas is allocated to the balance responsible parties by the transmission capacity allocator.

This is a typical market structure in central Europe and requires a complicated set of information flows.

The Nordic market in comparison is relatively simple and requires a simple subset of the sequence diagram. In the Nordic market there is neither a transmission capacity allocator nor are there any interactions with external system operators. Consequently the information flows concerning these actors are not required. Without these flows therefore, the sequence diagram reflects the Nordic market.

Prior to allocation the system operators exchange an agreement of capacity between balance areas. The transmission capacity allocator is then informed of the capacity available for allocation. Allocation may be applied either through auctioning or through other market rules.

After the allocation the transmission capacity allocator will inform the balance responsible parties of the capacity that they have been allocated for inter area energy transmission. This information will also be sent to both system operators to enable them to have an indication of the cross border loading. This information also enables them to verify if a trader's energy schedules are within the limits of the allocated capacity. If not, the schedules in question are in deviation and market rules are applied.

The balance responsible will then inform their system operator of the trades that they have carried out. These purchases and sales will initially be controlled for coherence and if correct, they will be informed by the system operator that the schedule has been accepted for processing. If not, they will be informed of the schedules rejection.

The system operator may partially control the schedules as soon he has all the necessary information in his possession. In the case of error, he will inform the balance responsible party of the errors through an anomaly report. The balance responsible party may then resubmit the schedules with the necessary corrections.

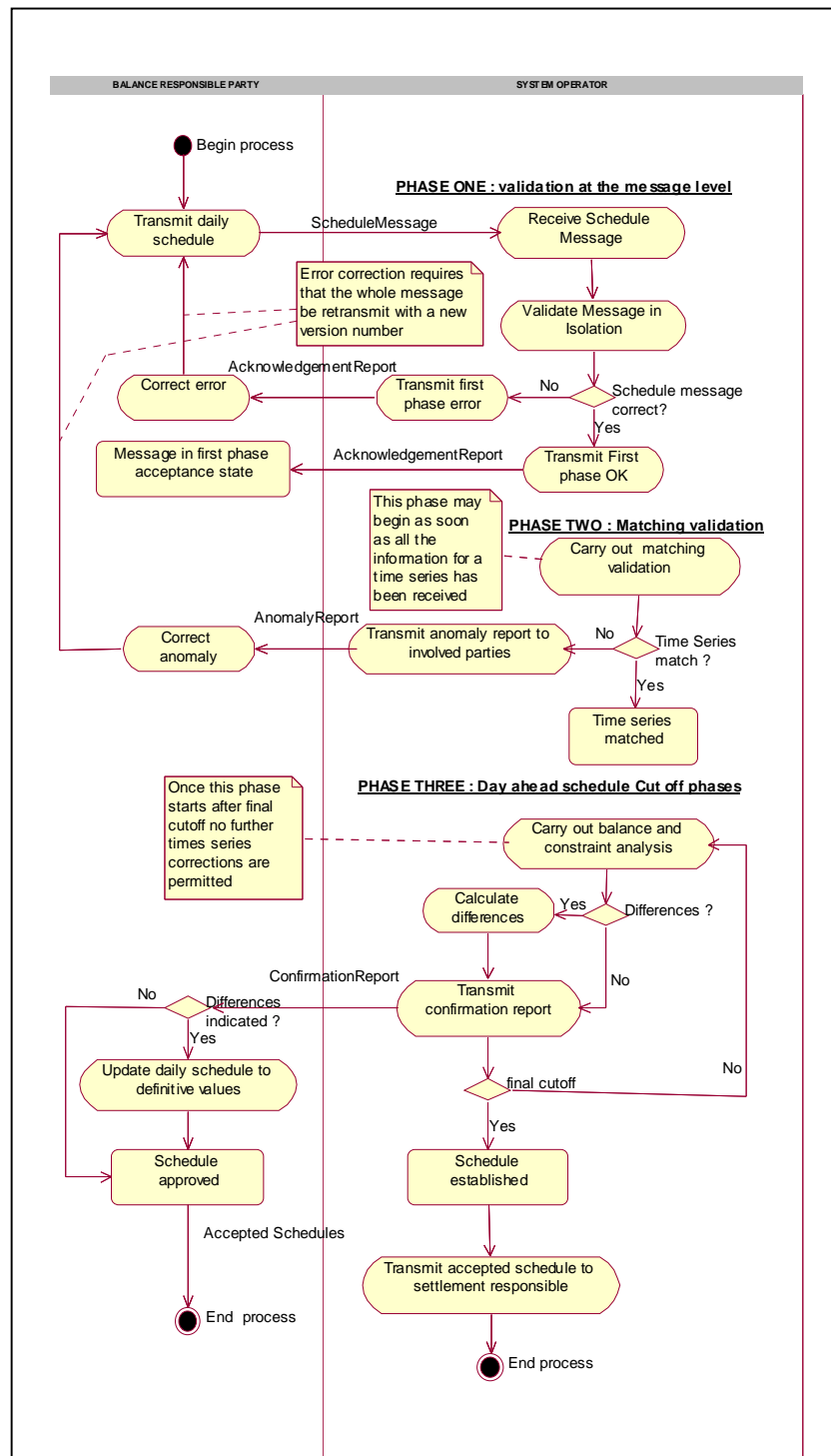
As soon as cut-off occurs the system operator will finalise all controls respecting market rules. He will then send a confirmation report (or eventually an anomaly report) to the various parties informing them of the actions that will be taken into account for the day in question.

Depending on market rules, apart from the final confirmation report that is produced after cutoff, intermediate confirmation reports may be generated. The cutoff time refers not only to daily or intra daily markets as considered in this guide, but also to the different markets that cover imbalance adjustments, reserve allocation, etc. (ancillary services markets).

Any bypass procedures to be used after cutoff are market dependent and are not covered in this guide, but the scheduling documents defined in this document may be used.

To close the process all the approved schedules are sent to the imbalance settlement responsible party. This process is not covered in this guide. In some contexts the imbalance settlement responsible may receive the balance responsible schedules and inform the system operator of the approved schedules.

### 3.2 Schedule system information flows



**Figure 5: Schedule planning transmission process**

A more precise decomposition of the interchange between balance responsible parties and the system operator is provided in Figure 5.

The schedule document transmission cycle is composed of three phases:

1. The initial transmission of the schedule document to the system operator. During this phase the document is verified for coherence independently of all the schedule documents that have been transmit by other parties. This phase verifies the coherence of

the time series within the document. The phase ends with the transmission to the sender of a positive or negative acknowledgement of the time series received.

2. The matching validation can be carried out on the time series within a document once the time series from the complementary parties has been received. If a time series is found not to match, an anomaly document is transmit to all the involved parties informing them of the problem. Time series found to be in error need to be retransmit via the retransmission of the applicable schedule document (with a new document version -called message version in the information model) containing the corrected time series (with the version number of the retransmit document). The retransmit schedule document will include all the non-erroneous time series that were sent with the document. These will maintain the version number of their last clean transmission.
3. The last phase occurs at the moment of cut-off or prior to it for the schedule type involved. A difference's analysis is then carried out, respecting market rules, between the set of time series that has been received and what has been accepted as the time series for the period in question. Each party that sent a schedule document is then informed via a confirmation report document of the situation that has been accepted at this stage of the process. Any differences will be highlighted in the report. The reception of this report after final cutoff ends the scheduling process.

The schedule document, the acknowledgement document, the anomaly report document and the confirmation report document is defined within this guide.

### **3.3 Balance Responsible Party definition**

The term “Balance Responsible Party” is used throughout this implementation guide and has two meanings:

1. It identifies a Legal entity that has a contract within a Market Balance Area (as is defined in the Role Model).
2. It identifies the entity that a Balance Responsible Party must ensure is in balance in the scheduling system.

In general in the schedule document the first definition is used in the document header and the second definition is used in the time series header. These headers are defined later in this implementation guide. Local market rules use these definitions with different terms. The following examples will help clarify these definitions:

- Definition 1 will generally correspond to the identification of the entity behind the codes used in the “Sender Identification” attribute in the document header, for example:
  - A Balance Responsible Party.
  - A third party responsible for the transmission of schedules on behalf of a Balance Responsible Party.
  - A Balance Group Manager (as defined in the Austrian market).
  - A Market Subject (as defined in the Spanish market).
  - A Schedule Coordinator (as defined in the Polish market).
- Definition 2 will generally correspond to the identification of the entities behind the codes used in the “In Party” and “Out Party” attributes in the time series header, for example:

- A Balance Responsible Party.
- A Balance Group from a single Market Balance Area identified by a single code (Y coded EIC codes).
- A Balance Group over several Market Balance Areas identified by a single code (X coded EIC codes).
- A Power Exchange

### 3.4 General ground rules

The process flow assumes that a certain number of basic rules are respected. This does not include the specific rules that have been defined in an interchange agreement. These basic rules are:

1. A party must transmit a consistent Party global position in compliance with market rules for day ahead schedules. The last valid schedule document received represents the global position for the Balance Responsible Party.
2. A time series shall be sent for each unique combination of the product, business type, object aggregation, in area, out area, metering point identification, in party, out party, capacity contract type and capacity agreement identification.
3. Every time a new version of a schedule document is retransmit all the time series contained in the previous transmission must appear in the new version. In the case where a time series is missing, or an existing time series is rejected, the complete document will be rejected.
4. All version numbers shall be positive integer values and leading zeros shall be suppressed
5. All scheduling documents received shall have an acknowledgement (acceptance, rejection or errors).
6. All the time series information that has been validated in phase 1 (validation at document level) for formal correctness may be used to balance their complementary time series as soon as these become available.
7. All the times related to energy products in the documents are expressed in Coordinated Universal Time (the acronym of which is UTC) in compliance with ISO 8601. This is restricted to YYYY-MM-DDTHH:MMZ in order to remain in conformity with XML schema requirements.
8. All the time intervals in the documents are expressed in compliance with ISO 8601 This is restricted to YYYY-MM-DDTHH:MMZ/YYYY-MM-DDTHH:MMZ. The time interval has an inclusive start time and an exclusive end time and is expressed in minutes (i.e. 00:00Z to 00:00Z is exactly a 24 hour period).
9. The resolution of a time series period shall always be expressed in minutes.
10. The time interval defined in the period class shall always be a multiple of its resolution.
11. For a schedule document the time interval of a period class shall always be equal to the Schedule time interval.

12. Negative quantities for a time series are only permitted for certain categories of netted time series (see specific business types in section 8.2.5)..
13. A time series shall be suppressed by zeroing out all the time interval class quantities in the time series.
14. It is preferred that the quantity for a balance responsible time series in a day ahead and an intra day schedule is given in power units' as the average value over the time interval, i.e. MW (code MAW). If the quantity time interval does not correspond to a multiple of 60 minute intervals, converting average power to energy will often result in rounding errors. If this is the case, it is recommended that energy units of measure are used.
15. The quantity for an allocated capacity schedule is always given in maximum power units, i.e. MW (code MAW).
16. Whenever a coded value within a document is associated with a coding scheme, the coding scheme must always be supplied. The coding scheme is an independent attribute with a size of 3 alphanumeric characters.

### 3.5 Global position

The ETSO Scheduling System is based on the principle of the transmission of all the information relative to the position of a Party for a given context. This is known as the “global position”. The global position covers the Schedule Time Interval as defined within the Schedule Message.

The Party is defined in the “Subject party” attribute of the document. The subject party will appear in the In or Out party attributes of each time series when the position for the party in question is being sent. This implies that in certain circumstances this attribute will not be present, in which case the document defines the position relative to the context uniquely. A subject role is required when a subject party is identifying an organisation.

The context is defined by the “Domain” combined with the “ProcessType” attributes of the Document. The domain is in general the Market Balance Area that is the subject of the schedule plan. Other domains may also be used as required, for example ITC areas. The domain can also be a subset of the Market Balance Area which has to be identified separately depending on market rules (e.g. different market cut-off times). Some examples: "Internal trades + external trades of the Market x", "Only Internal trades of the Market x", "Only External trades border x", "Power exchange trades", "Trades for compensation of losses",...

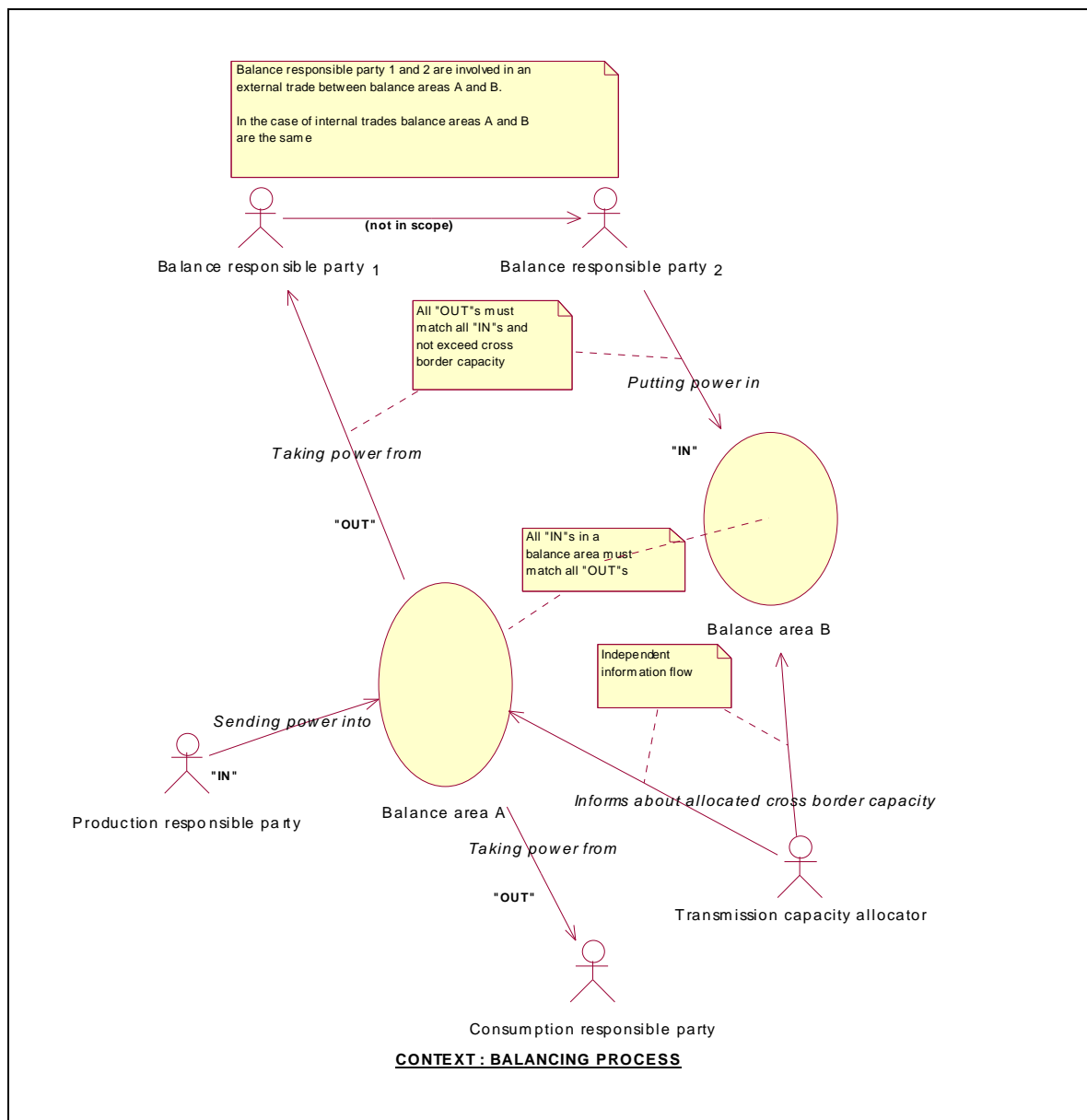
In case of EIC codification a Y (area) code is used. ProcessType examples: intraday, day ahead (aggregation on day ahead level) , day ahead schedule associated to daily capacity contract, day ahead schedule associated to long term capacity contracts,...

The period is defined in the “Schedule Time Interval” attribute of the document.

The global position is defined as the aggregation of all the time series with the set of attributes defined above (Domain, SubjectParty, SubjectRole and ProcessType).



### 3.6 Energy flow direction



**Figure 6: Energy flow use case.**

Schedules are used for the determination of product imbalances for areas and market participants. To be able to do imbalance calculations it is always necessary to know the direction of the product flow.

In order to ensure that the direction of an energy flow can be established it is important to clearly establish a set of business rules concerning the content of a schedule. There is frequently confusion between the origin or destination of a flow and its direction. The use case shown in Figure 6 outlines what is necessary for the balancing process. In this diagram it is clear that a production responsible party, who is normally the source of the energy, from a balancing point of view, puts the energy into an area. In a similar fashion a consumption responsible, takes the energy out of an area.

In the case of trades between parties within an area the "out area" will always be the same as the "in area". An error condition shall be raised if these values are not equal. The direction

of the energy flow therefore can be determined as going from the “out party” (seller) to the “in party” (buyer).

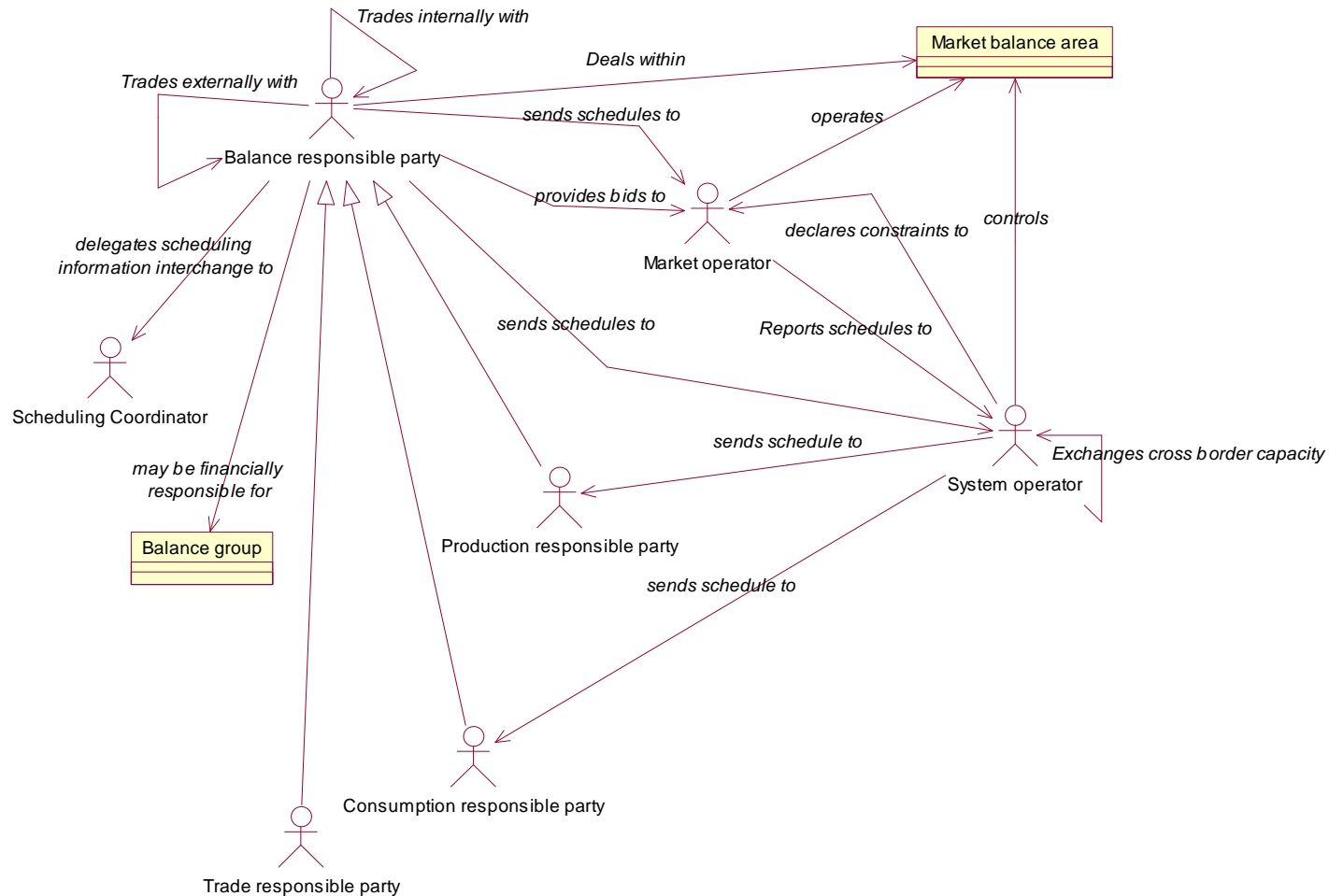
In the case of trades between parties in different areas the “out area” shall always be different to the “in area”. If this is not the case then an error condition shall be raised. The energy flow shall always go from the “out area” to the “in area”. In the case of external trades the “out party” need not be different to the “in party” (one to one nominations, for example can take place as in the case of the German market).

With the application of these principles an area can be said to be balanced if all the “outs” are equal to all the “ins”.

In order to ensure that the areas and parties are clearly identified in the document, the terms “in” and “out” will be used in the area and party names.

#### 4. SCOPE OF THE ESS WITHIN THE CONTEXT OF THE ROLE MODEL

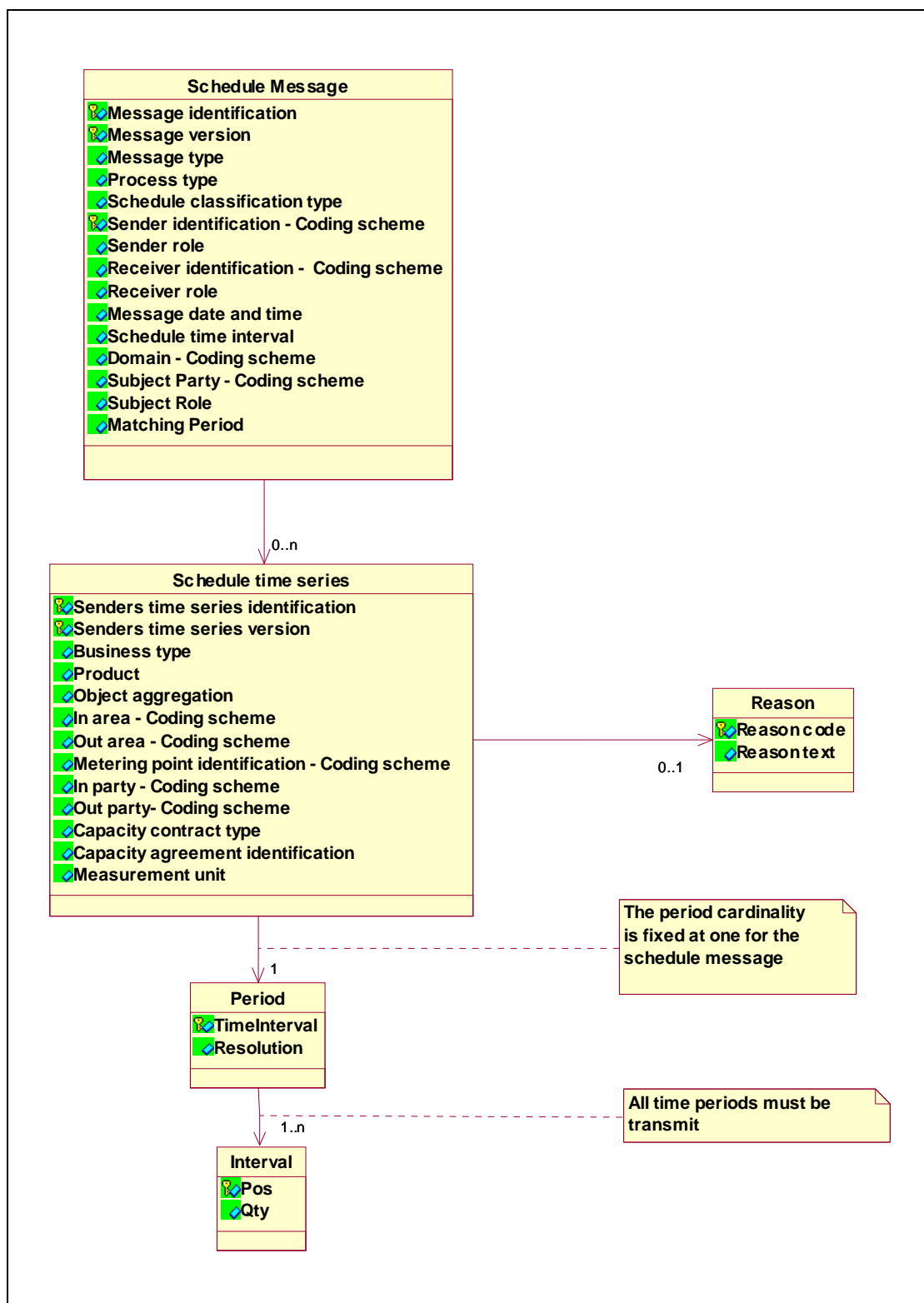
The Role model details and definitions can be found in the document “ETSO Role Model”. This document is available on the ETSO website.



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## 5. SCHEDULE DOCUMENT IMPLEMENTATION

### 5.1 Information model



## 5.2 Rules governing the Schedule Document Implementation

### 5.2.1 Dependency matrix

The matrix, outlined below, shows the mandatory requirement for dependant key attributes that appear in the schedule time series element. For example in the case where the business type is “A01” then the in area and in party are required.

|               |                                      | Area |     | Party |     |                                   |                        |
|---------------|--------------------------------------|------|-----|-------|-----|-----------------------------------|------------------------|
| Business type | Name                                 | IN   | OUT | IN    | OUT | Capacity Agreement identification | Capacity contract type |
| A01           | Production                           | M    |     | M     |     |                                   |                        |
| A02           | Internal trade                       | M    | M   | M     | M   |                                   |                        |
| A03           | External trade explicit capacity     | M    | M   | M     | M   | M                                 | M                      |
| A04           | Consumption                          |      | M   |       | M   |                                   |                        |
| A05           | External trade total                 | M    | M   |       |     |                                   |                        |
| A06           | External trade non explicit capacity | M    | M   | M     | M   |                                   |                        |
| A07           | Net Production / Consumption         | M    | M   | M     | M   |                                   |                        |
| A08           | Net internal trade                   | M    | M   | M     | M   |                                   |                        |
| A30           | Internal inter area trade            | M    | M   | M     | M   |                                   |                        |

| Object aggregation | Name           | Metering point |
|--------------------|----------------|----------------|
| A01                | Area           |                |
| A02                | Metering point | M              |
| A03                | Party          |                |

M signifies mandatory; Blank signifies not used.

### 5.2.2 General rules governing document content

#### 5.2.2.1 Document and time series version numbers.

A schedule document is sent for the schedule identified by its type, given by the “document type” for a set of time series schedules, given by the “schedule time interval”. The schedule document shall provide the global position of the Party. This is the basis on which the document and time series version procedure has been devised. It is important to stress that

the procedure requires that only one schedule document is received for a given role. Each schedule document has a unique identification (materialised by its sender identification and document identification). If there are additions, modifications or suppressions to the set of time series within the schedule document, the identification is complemented by a version number.

The initial transmission of a schedule document should generally have a version number of “1”. However, in specific circumstances this may be different, but the initial transmission of a document should always have the lowest version number for that document. For each transmission of the schedule document the version number is increased. The receiver shall ensure that a retransmitted schedule document has a version number strictly higher than the previous version number. The document version number (called message version in the information model) does not have to be in strict sequential order.

Each retransmission of the schedule document shall include all the time series associated with the document in question. Each time series has a version number that corresponds to the version number of the document in which the series has been added or changed. In other words it shall be “1” for the time series which has been sent in the initial transmission of a document whose version number is 1. Unchanged time series should keep the version number of their last valid transmission. The time series version number is mainly for information purposes and it is market rules that dictate its final method of use. For example, in some cases a market may require that all the time series version numbers are strictly the same as the document version (called message version in the information model), whereas in other cases markets may require that only those time series which have changed shall have their version number changed.

This principle allows all markets to transmit documents in a compatible fashion even though different market rules apply.

#### **5.2.2.1.1 Example where market rules dictate that only changed time series have their version number changed.**

Example: an initial transmission of a document with 3 time series:

| Message identification | Message version | Senders time series identification | Senders time series version |
|------------------------|-----------------|------------------------------------|-----------------------------|
| 1234                   | 1               | TS01                               | 1                           |
|                        |                 | TS02                               | 1                           |
|                        |                 | TS03                               | 1                           |

A second transmission of the same document with a modification only to TS02 :

| Message identification | Message version | Senders time series identification | Senders time series version |
|------------------------|-----------------|------------------------------------|-----------------------------|
| 1234                   | 5               | TS01                               | 1                           |
|                        |                 | TS02                               | 5                           |
|                        |                 | TS03                               | 1                           |

A third transmission of the same document with the addition of TS04 :

| Message identification | Message version | Senders time series identification | Senders time series version |
|------------------------|-----------------|------------------------------------|-----------------------------|
| 1234                   | 11              | TS01                               | 1                           |
|                        |                 | TS02                               | 5                           |
|                        |                 | TS03                               | 1                           |
|                        |                 | TS04                               | 11                          |

**Note:** The three schedule documents above are the only ones that the TSO might receive (i.e. the sequential increase of the message version is not required but it must be superior to the preceding version received.).

#### 5.2.2.1.2 Example where market rules dictate that all time series should have the same version in the document.

Example: an initial transmission of a document with 3 time series:

| Message identification | Message version | Senders time series identification | Senders time series version |
|------------------------|-----------------|------------------------------------|-----------------------------|
| 1234                   | 1               | TS01                               | 1                           |
|                        |                 | TS02                               | 1                           |
|                        |                 | TS03                               | 1                           |

A second transmission of the same document with a modification only to TS02:

| Message identification | Message version | Senders time series identification | Senders time series version |
|------------------------|-----------------|------------------------------------|-----------------------------|
| 1234                   | 5               | TS01                               | 5                           |
|                        |                 | TS02                               | 5                           |
|                        |                 | TS03                               | 5                           |

A third transmission of the same document with the addition of TS04:

| Message identification | Message version | Senders time series identification | Senders time series version |
|------------------------|-----------------|------------------------------------|-----------------------------|
| 1234                   | 11              | TS01                               | 11                          |
|                        |                 | TS02                               | 11                          |
|                        |                 | TS03                               | 11                          |
|                        |                 | TS04                               | 11                          |

#### 5.2.2.2 Intra day trading.

An intra-day document respects exactly the same rules at that of a day ahead document.

Intra-day scheduling can only take place within the scope of the days already scheduled but not executed.

The matching period concerning the intra day covers the beginning of the matching period through to the end of schedule time interval



The values outside the matching period must not modify the position that has previously been accepted in schedules for external trades. This rule may not necessarily apply in the case of trades within the same market balance area (the same In Area and Out Area). This depends on local market rules.

At gate closure if a trader did not provide a day ahead schedule market rules might permit him to transmit intra day schedules with the assumption that his day ahead schedule was completely zero.

In other words the intra day schedule begin date must be greater than or equal to the first day ahead schedule begin date and the intra day schedule end date must be equal to the last day ahead schedule end date. This is necessary because the intra day schedule, as for the day ahead already scheduled, must provide the global position of the beginning of the intra day period through to the end of the day of the balance responsible party.

Intra-day scheduling for the day D can only start after the gate closure of the day ahead scheduling for the day D.

For a given intra day document the approval process is carried out until cutoff time.

There are two cases involving the use of intra-day schedules, one where there is a new global position for each matching period and the second where there is a single global position independently of the matching period. These are distinguished by the change of document identification. The first concerns the use of more than one process type and different document identifications for each schedule and the second concerns the use of a single process type and the same document identification:

- When an intra-day document is assigned a different document identification for each matching period (indifferently to the change of process type) , any time period intervals (i.e. those related to the begin and end of the intra day schedule time interval) can only increase the previously accepted value (either intra-day or day ahead) or be set to zero.
- 
- When an intra-day document uses the same document identification for each matching period (implying that the process type does not change), any time period intervals (i.e. those related to the begin and end of the intra day schedule time interval) that have not changed in relation to the previous schedule must be repeated.

The schedule time interval covers the start of the intra day period and it goes to the end of the day already scheduled. Market rules define exactly this process.

The general ground rules described in section 3.4 apply equally to an intra day document with the additional constraint of the matching period rules as defined above.

Other possibilities for operating intra day trading and their corresponding schedules may exist (such as that of the UK), but this has not been taken into consideration in this implementation guide.

### **5.2.3 Specific rules for allocated capacity schedules**

An allocated capacity schedule follows the same basic rules as for every other schedule document. In the case of this schedule the only possibilities available for the business type and object aggregation are as follows:

|                      |                                  |             |            |              |            |                           |                          |
|----------------------|----------------------------------|-------------|------------|--------------|------------|---------------------------|--------------------------|
|                      |                                  | <b>Area</b> |            | <b>Party</b> |            |                           |                          |
| <b>Business type</b> | <b>Name</b>                      | <b>IN</b>   | <b>OUT</b> | <b>IN</b>    | <b>OUT</b> | <b>Capacity agreement</b> | <b>Capacity contract</b> |
| A03                  | External trade explicit capacity | M           | M          | M            | M          | M                         | M                        |

| <b>Object aggregation</b> | <b>Name</b>    | <b>Metering point</b> |
|---------------------------|----------------|-----------------------|
| A01                       | Area           |                       |
| A02                       | Metering point | M                     |
| A03                       | Party          |                       |

#### 5.2.4 Document acceptance and rejection criteria.

The schedule document is composed of four levels:

1. The document header providing the basic document identification, the identification of involved parties, and the schedule time interval and eventual matching period.
2. The time series identification level providing all the information that is necessary to uniquely identify a time series. It also provides some information relative to the time interval such as the measurement unit.
3. The period level that defines the time interval period and resolution that covers the quantities being reported. In the case of the schedule document only one period is permitted.
4. The interval level that provides the time interval position (time interval period / resolution) and the quantity for the position in question.

In each of these cases an error condition may occur which can either cause the rejection of the document or the time series or the time interval quantities. The following conditions describe these possibilities:

| <b>ERROR</b>                                  | <b>SECONDARY CONDITION</b>   | <b>ACTION</b>                                     |
|---|--|---|
| 1. A document header error.                   |  | The complete document is rejected.                |
| 2. A time series identification level header. | A: If it is the initial transmission of a document, or if it concerns the addition of a new time series.   | The complete time series in question is rejected. |
|   | B. If it is the retransmission of a document with a new version number then if it concerns an error at the time series level or if the time series is missing. | The complete document is rejected.                |
| 3 A period level error                        | An error concerning the time interval or the resolution  | The complete time series is rejected              |
| 4. An interval level error.                   | If it is an error with the quantity.   | Set the quantity value to zero.                   |
|   | If the position doesn't exist.   | The position is ignored                           |
|   | If the position is missing;  | Set the quantity to zero.                         |

### **5.2.5 A document without any time series instances**

A document that contains no time series instances shall be considered to be a valid transmission from a market participant indicating that there is no time series information forthcoming. This is dependant on market rules that in some circumstances require the systematic transmission of a document from a market participant.

The market participant may at a later time transmit a new version of the document in question with time series information.



## 5.2.6 Schedule document Examples

| <u>ScheduleMessage Header</u>     | German Balance Group System         |                  |   | Party System without Balance Groups |                  |  | Party System with Balance Groups    |                  |  |
|-----------------------------------|-------------------------------------|------------------|---|-------------------------------------|------------------|--|-------------------------------------|------------------|--|
|                                   | Production                          | Consumption      | external trade between Area EON and Area VE-T | Production                          | Consumption      | External trade between area France and Area RWENET | Production                          | Consumption      | External trade between area France and Area RWENET |
| Message Identification            |                                     |                  |   |                                     |                  |  |                                     |                  |  |
| Message Version                   | 1                                   |                  |   | 1                                   |                  |  | 1                                   |                  |  |
| Message type                      | A01                                 |                  |   | A01                                 |                  |  | A01                                 |                  |  |
| Process Type                      | A01                                 |                  |   | A01                                 |                  |  | A01                                 |                  |  |
| Schedule Classification Type      | A01                                 |                  |   | A01                                 |                  |  | A01                                 |                  |  |
| Sender Identification             | 11X-VE-PARTY---P                    |                  |   | 11X-PARTY-----AE                    |                  |  | 11X-PARTY-----AE                    |                  |  |
| Sender Role                       | A08                                 |                  |   | A06                                 | A02              | A08  | A06                                 | A02              | A08  |
| Receiver Identification           | 10XDE-VE-TRANSMK                    |                  |   | 10XFR-RTE-----X                     |                  |  | 10XFR-RTE-----X                     |                  |  |
| Receiver Role                     | A04                                 |                  |   | A04                                 |                  |  | A04                                 |                  |  |
| Message Date and Time             | 2005-06-30T15:08:56Z                |                  |   | 2005-06-30T15:08:56Z                |                  |  | 2005-06-30T15:08:56Z                |                  |  |
| Schedule Time Interval            | 2005-06-30T22:00Z/2005-07-01T22:00Z |                  |   | 2005-06-30T22:00Z/2005-07-01T22:00Z |                  |  | 2005-06-30T22:00Z/2005-07-01T22:00Z |                  |  |
| Domain                            | 10YDE-VE-----2                      | 10YDE-VE-----2   | 10YDE-VE-----2                                | 10YFR-RTEGRID--X                    | 10YFR-RTEGRID--X | 10YFR-RTEGRID--X                                   | 10YFR-RTEGRID--X                    | 10YFR-RTEGRID--X | 10YFR-RTEGRID--X                                   |
| SubjectParty                      | 11XVE-BALANCEGP7                    |                  |   | 11X-PARTY-----AE                    |                  |  | 11X-PARTY-BG--A5                    |                  |  |
| SubjectRole                       |                                     |                  |   | A08                                 |                  |  |                                     |                  |  |
| MatchingPeriod                    | 2005-06-30T22:00Z/2005-07-01T22:00Z |                  |   | 2005-06-30T22:00Z/2005-07-01T22:00Z |                  |  | 2005-06-30T22:00Z/2005-07-01T22:00Z |                  |  |
| <u>Schedule Time Series</u>       | Production                          | Consumption      | External trade non explicit capacity          | Production                          | Consumption      | External trade non explicit capacity               | Production                          | Consumption      | External trade non explicit capacity               |
| Senders TimeSeries Identification | TS1                                 | TS2              | TS3   | TSXXAB                              | TSXXAC           | TSXXAD   | TSXXAB                              | TSXXAC           | TSXXAD   |
| Senders Time Series Version       | 1                                   |                  |   | 1                                   |                  |  | 1                                   |                  |  |
| Business Type                     | A01                                 | A04              | A06   | A01                                 | A04              | A03  | A01                                 | A04              | A03  |
| Product                           | 8716867000016                       |                  |   | 8716867000016                       |                  |  | 8716867000016                       |                  |  |
| Object aggregation                | A03                                 | A03              | A03   | A03                                 | A03              | A03  | A03                                 | A03              | A03  |
| In Area                           | 10YDE-VE-----2                      |                  | 10YDE-VE-----2                                | 10YFR-RTEGRID--X                    |                  | 10YFR-RTEGRID--X                                   | 10YFR-RTEGRID--X                    |                  | 10YFR-RTEGRID--X                                   |
| Out Area                          |                                     | 10YDE-VE-----2   | 10YDE-EON-----1                               |                                     | 10YFR-RTEGRID--X | 10YDE-RWENET---I                                   |                                     | 10YFR-RTEGRID--X | 10YDE-RWENET---I                                   |
| Metering Point Identification     |                                     |                  |   |                                     |                  |  |                                     |                  |  |
| In Party                          | 11XVE-BALANCEGP7                    |                  | 11XVE-BALANCEGP7                              | 11X-PARTY-----AE                    |                  | 11X-PARTY-----AE                                   | 11X-PARTY-BG--A5                    |                  | 11X-PARTY-BG--A5                                   |
| Out Party                         |                                     | 11XVE-BALANCEGP7 | 11XVE-BALANCEGP7                              |                                     | 11X-PARTY-----AE | 11X-PARTY-----BC                                   |                                     | 11X-PARTY-BG--A5 | 11X-PARTY-BG--B3                                   |
| Capacity Contract Type            |                                     |                  |   |                                     |                  | A02  |                                     |                  | A03  |
| Capacity Agreement Identification |                                     |                  |   |                                     |                  | Reg-12   |                                     |                  | Reg-14   |
| Measurement Unit                  | MAW                                 | MAW              | MAW   | MAW                                 | MAW              | MAW  | MAW                                 | MAW              | MAW  |
| <u>Period</u>                     |                                     |                  |   |                                     |                  |  |                                     |                  |  |
| Time interval                     | 2005-06-30T22:00Z/2005-07-01T22:00Z |                  |   | 2005-06-30T22:00Z/2005-07-01T22:00Z |                  |  | 2005-06-30T22:00Z/2005-07-01T22:00Z |                  |  |
| Resolution                        | PT15M                               | PT15M            | PT15M   | PT15M                               | PT15M            | PT15M  | PT15M                               | PT15M            | PT15M  |
| <u>Interval</u>                   |                                     |                  |   |                                     |                  |  |                                     |                  |  |
| Pos                               | 1                                   |                  | 1   | 1                                   | 1                | 1  | 1                                   | 1                | 1  |
| Qty                               | 30                                  |                  | 50  | 50                                  | 50               | 40   | 50                                  | 50               | 40   |

## 5.3 Schedule document class specifications

### 5.3.1 Message Identification

| ACTION                         | DESCRIPTION   |
|--------------------------------|---|
| <b>Definition of element</b>   | Unique identification of the document for which the time series data is being supplied.   |
| <b>Description</b>             | <p>A schedule document for a given schedule time interval, matching period (depending on market rules), domain and process type must have a unique identification assigned by the sender of the document to be sent to a receiver. No more than one schedule document with the same Message Identification for a given schedule time interval matching period (depending on market rules), domain and process type can exist for a given gate closure. A schedule document must provide the global position of the Party for the period in question.</p> <p>The party sending a time series can only send it within a single role (e.g. trade responsible, consumption responsible, etc).</p> <p>If the sender plays multiple independent roles then, as many documents as the party plays roles must be sent (e.g. in the case where the sender is a production responsible party who also acts as a trader, two documents may be sent to the system operator). In cases where several roles are required in a single document a generic role must be used.</p> <p>One document will be sent in the sender's capacity as production responsible party and one in his capacity as trade responsible party).</p> |
| <b>Size</b>                    | The identification of a schedule document may not exceed 35 alphanumeric characters.  |
| <b>Applicability</b>           | This information is mandatory.  |
| <b>Dependence requirements</b> | None  |

### 5.3.2 Message Version

| <b>ACTION</b>                  | <b>DESCRIPTION</b>  |
|--------------------------------|---|
| <b>Definition of element</b>   | Version of the document being sent. A document may be sent several times, each transmission being identified by a different version number that starts at 1 and increases sequentially.   |
| <b>Description</b>             | <p>The schedule document version (called message version in the information model) is used to identify a given version of a time series set for a given schedule time interval.</p> <p>The first version number for a given schedule document identification shall normally be 1.</p> <p>The document version number must be incremented for each retransmission of a schedule document that contains changes to the previous version.</p> <p>The receiving system should ensure that the version number for a schedule document is superior to the previous version number received.</p> |
| <b>Size</b>                    | A version number may not exceed 3 numeric characters with no leading zeros.   |
| <b>Applicability</b>           | This information is mandatory.  |
| <b>Dependence requirements</b> | None.   |

### 5.3.3 Message Type

| <b>ACTION</b>                  | <b>DESCRIPTION</b>   |
|--------------------------------|--|
| <b>Definition of element</b>   | The coded type of the document being sent.   |
| <b>Description</b>             | <p>The schedule document type identifies the information flow characteristics.</p> <p><b>Refer to ETSO Code list document for the valid list of codes.</b></p> |
| <b>Size</b>                    | The schedule document type value may not exceed 3 alphanumeric characters.   |
| <b>Applicability</b>           | This information is mandatory.   |
| <b>Dependence requirements</b> | None.  |



### 5.3.4 Process Type

| <b>ACTION</b>                  | <b>DESCRIPTION</b>   |
|--------------------------------|--|
| <b>Definition of element</b>   | The nature of the process that the document is directed at.  |
| <b>Description</b>             | The process type identifies the process to which the information flow is directed.<br><br><b>Refer to ETSO Code list document for the valid list of codes.</b> |
| <b>Size</b>                    | The process type value may not exceed 3 alphanumeric characters.   |
| <b>Applicability</b>           | This information is mandatory.   |
| <b>Dependence requirements</b> | None.  |

### 5.3.5 Schedule classification type

| <b>ACTION</b>                  | <b>DESCRIPTION</b>   |
|--------------------------------|--|
| <b>Definition of element</b>   | A type that is used to classify the schedule by aggregation or classification.   |
| <b>Description</b>             | The schedule classification type identifies the aggregation or classification type of the schedule<br><br>In the case of normal day ahead schedules exchanged between the trader and the TSO, the code A01 (exchange) is used. The code A02 (summary) is generally only used for exchanges between TSOs.<br><br><b>Refer to ETSO Code list document for the valid list of codes.</b> |
| <b>Size</b>                    | The schedule classification type value may not exceed 3 alphanumeric characters.   |
| <b>Applicability</b>           | This information is mandatory.   |
| <b>Dependence requirements</b> | None.  |

### 5.3.6 Sender Identification – Coding Scheme

| ACTION                         | DESCRIPTION  |
|--------------------------------|--|
| <b>Definition of element</b>   | Identification of the party who is sending the document.   |
| <b>Description</b>             | <p>The sender of the document is identified by a unique coded identification. This code identifies the party that is the “owner” of the information being transmitted in the document. For example, a party who is responsible for the content of the document on behalf of a Balance Responsible Party.</p> <p>The codification scheme used for the coded identification is indicated by the coding scheme attribute. It is a 3 character alphanumeric code. <b>Refer to ETSO Code list document for the valid list of codes.</b></p> |
| <b>Size</b>                    | <p>The maximum length of a sender’s identification is 16 alphanumeric characters.</p> <p>The maximum length of the coding scheme code is 3 alphanumeric characters.</p>  |
| <b>Applicability</b>           | Both the identification and the coding scheme are mandatory.   |
| <b>Dependence requirements</b> | None.  |

### 5.3.7 Sender Role

| ACTION                         | DESCRIPTION  |
|--------------------------------|--|
| <b>Definition of element</b>   | Identification of the role that is played by the sender.   |
| <b>Description</b>             | <p>The sender role, which identifies the role of the sender within the document.</p> <p><b>Refer to ETSO Code list document for the valid list of codes.</b></p> |
|                                |  |
| <b>Size</b>                    | The maximum length of a sender role is 3 alphanumeric characters.  |
| <b>Applicability</b>           | This information is mandatory.   |
| <b>Dependence requirements</b> | None.  |

### 5.3.8 Receiver Identification – Coding Scheme

| ACTION                         | DESCRIPTION   |
|--------------------------------|---|
| <b>Definition of element</b>   | Identification of the party who is receiving the schedules.   |
| <b>Description</b>             | <p>The receiver of the document is identified by a unique coded identification.</p> <p>The codification scheme used for the coded identification is indicated by the coding scheme attribute. It is a 3 character alphanumeric code. <b>Refer to ETSO Code list document for the valid list of codes.</b></p> |
| <b>Size</b>                    | <p>The maximum length of a receiver's identification is 16 alphanumeric characters.</p> <p>The maximum length of the coding scheme code is 3 alphanumeric characters.</p>   |
| <b>Applicability</b>           | Both the identification and the coding scheme are mandatory.  |
| <b>Dependence requirements</b> | None.   |

### 5.3.9 Receiver Role

| ACTION                         | DESCRIPTION  |
|--------------------------------|--|
| <b>Definition of element</b>   | Identification of the role played by the receiver.   |
| <b>Description</b>             | <p>The receiver role, which identifies the role of the receiver within the document.</p> <p><b>Refer to ETSO Code list document for the valid list of codes.</b></p> |
| <b>Size</b>                    | The maximum length of a receiver role is 3 alphanumeric characters.  |
| <b>Applicability</b>           | This information is mandatory.   |
| <b>Dependence requirements</b> | None.  |

### 5.3.10 Message Date And Time

| ACTION                         | DESCRIPTION  |
|--------------------------------|--|
| <b>Definition of element</b>   | Date and time of transmission of the scheduling data. The time must be expressed in UTC as YYYY-MM-DDTHH:MM:SSZ. |
| <b>Description</b>             | The date and time that the document was prepared for transmission by the application of the sender.              |
| <b>Size</b>                    | The date and time must be expressed in UTC as YYYY-MM-DDTHH:MM:SSZ.  |
| <b>Applicability</b>           | This information is mandatory.   |
| <b>Dependence requirements</b> | None.  |

### 5.3.11 Schedule Time Interval

| <b>ACTION</b>                  | <b>DESCRIPTION</b>   |
|--------------------------------|--|
| <b>Definition of element</b>   | <p>The beginning and ending date and time of the period covered by the document containing the schedule. The schedule start and stop time interval must be expressed with a UTC time as follows:</p> <p>YYYY-MM-DDTHH:MMZ/YYYY-MM-DDTHH:MMZ.</p>   |
| <b>Description</b>             | <p>This information provides the start and end date and time of the schedule time interval.</p> <p>The System Operator or the Balance Settlement Responsible for which the Balance Responsible Parties (or their service providers) have to provide schedule information sets the schedule time interval.</p> <p>Typically the Balance Responsible Parties have to provide schedules for the next local day.</p> <p>All time intervals for the time series in the document must be within the total time interval for the schedule.</p> <p>The receiver will discard any time intervals outside the schedule period.</p> |
| <b>Size</b>                    | <p>The start and end date and time must be expressed as</p> <p>YYYY-MM-DDTHH:MMZ/YYYY-MM-DDTHH:MMZ.</p>  |
| <b>Applicability</b>           | <p>This information is mandatory.</p>  |
| <b>Dependence requirements</b> | <p>None.</p>   |

### 5.3.12 Domain - codingScheme

| <b>ACTION</b>                  | <b>DESCRIPTION</b>   |
|--------------------------------|--|
| <b>Definition of element</b>   | The domain covered within the Schedule Message Document.   |
| <b>Description</b>             | <p>The identification of the domain that is covered in the Schedule Message Document. Refer to specific description in section 3. It is in general the Market Balance Area that is the subject of the schedule plan.</p> <p>Other domains may also be used as required, for example CBT areas.</p> <p>The codification scheme used for the coded identification is indicated by the coding scheme attribute. It is a 3 character alphanumeric code. <b>Refer to ETSO Code list document for the valid list of codes.</b></p> |
| <b>Size</b>                    | <p>The maximum length of this information is 18 alphanumeric characters.</p> <p>The maximum length of the coding scheme code is 3 alphanumeric characters.</p>   |
| <b>Applicability</b>           | This information is dependent.   |
| <b>Dependence requirements</b> | Usage is defined by local market rules   |

### 5.3.13 Subject Party – codingScheme

| ACTION                         | DESCRIPTION  |
|--------------------------------|--|
| <b>Definition of element</b>   | The Party that is the subject of the Schedule Message Document   |
| <b>Description</b>             | <p>The party that is the subject of the documents time series. This could identify a Balance Group or a market participant.</p> <p>In the context where a domain is further refined into Balance Groups this provides the identification of the Balance Group that is the subject of the Schedule Document.</p> <p>The global position of the Schedule Document is provided at this level of detail. Refer to specific description in section 3.</p> <p>The codification scheme used for the coded identification is indicated by the coding scheme attribute. It is a 3 character alphanumeric code. <b>Refer to ETSO Code list document for the valid list of codes.</b></p> |
| <b>Size</b>                    | <p>The maximum length of this information is 16 alphanumeric characters.</p> <p>The maximum length of the coding scheme code is 3 alphanumeric characters.</p>   |
| <b>Applicability</b>           | This information is dependent.   |
| <b>Dependence requirements</b> | Usage is defined by local market rules   |

### 5.3.14 Subject Role

| ACTION                         | DESCRIPTION   |
|--------------------------------|---|
| <b>Definition of element</b>   | The Role of the Subject Party.  |
| <b>Description</b>             | <p>Where the subject party is described then the subjectrole must be used to describe the role of the party</p> <p><b>Refer to ETSO Code list document for the valid list of codes.</b></p> |
| <b>Size</b>                    | The maximum length of this information is 3 alphanumeric characters.  |
| <b>Applicability</b>           | This information is dependent.  |
| <b>Dependence requirements</b> | Usage is defined by local market rules. To be used only in cases where the Subject Party is a Balance Responsible Party..   |

### 5.3.15 Matching Period

| ACTION                         | DESCRIPTION   |
|--------------------------------|---|
| <b>Definition of element</b>   | <p>The beginning and ending date and time of the period that is to be matched within the schedule. The Matching start and stop time period must be expressed with a UTC time as follows:</p> <p>YYYY-MM-DDTHH:MMZ/YYYY-MM-DDTHH:MMZ.</p>  |
| <b>Description</b>             | <p>This information provides the start and end date and time of the period to be matched.</p> <p>The Matching Period start date and time must begin at the start of the Schedule time interval or be within the bounds of the Schedule Time Interval. The Matching Period end date and time must be the same as that of the Schedule Time Interval. It is this period that is being presented for matching.</p> <p>The period prior to the Matching Period is generally considered to be historical data and should correspond to the information received in previous transmissions.</p> |
| <b>Size</b>                    | <p>The start and end date and time must be expressed as</p> <p>YYYY-MM-DDTHH:MMZ/YYYY-MM-DDTHH:MMZ.</p>   |
| <b>Applicability</b>           | <p>This information is dependent.</p>   |
| <b>Dependence requirements</b> | <p>Local market rules will determine the use of this attribute. If it is absent then the whole Schedule Time Interval is considered to be the matching period..</p>   |

## 5.4 Rules governing the Schedule Time Series class

A Balance Responsible Party may transmit as many time series as necessary to establish his global position.

A document sent without any time series signifies that the sending party has no time series information to transmit for the period in question at the moment of transmission. Market rules may require such a context.

The sender assigns a unique identification to each occurrence of the product, business type, object aggregation, in area, out area, metering point identification, in party, out party, capacity contract type and capacity agreement identification.

A time series has a version number that has initially the value of “1”. If a given time series is modified then its version number shall be assigned the same value of the version number of the schedule document in which it is transmit.

If a version number of a time series has not changed between transmissions, it is the receiver’s responsibility to ensure that this is correct.

A time series shall contain a period that will cover the complete schedule time interval. The period shall also indicate the resolution of the periods within the time interval. The time interval must be completely covered by a whole multiple of the resolution.

If a time series is suppressed in a later transmission the time series will be resent with all the periods containing a zero value quantity.

**Note:** In the case of the one-to-one nomination principle the following is to be taken into consideration:

- Where the same party is on both sides of the border the same party code is used to identify it (i.e. typically in the case of an internal border).
- Where different parties are on either sides of the border (typically in the case of international borders), the parties must inform both system operators that their two codes should be considered the same from a one-to-one nomination perspective. This is generally implemented through a formal declaration.



#### 5.4.1 Senders Time Series Identification

| <b>ACTION</b>                  | <b>DESCRIPTION</b>  |
|--------------------------------|---|
| <b>Definition of element</b>   | <p>Sender's identification of the time series instance.</p> <p>This must be unique for the whole document and guarantee the non-duplication of the product, business type, object aggregation, in area, out area, metering point identification, in party, out party, capacity contract type and capacity agreement identification.</p> |
| <b>Description</b>             | <p>A unique identification within the schedule document assigned by the sender.</p> <p>This identification shall guarantee the uniqueness of the product, business type, object aggregation, in area, out area, metering point identification, in party, out party, capacity contract type and capacity agreement identification.</p>   |
| <b>Size</b>                    | The maximum size of a time series identification is 35 alphanumeric characters.   |
| <b>Applicability</b>           | This information is mandatory.  |
| <b>Dependence requirements</b> | None.   |

#### 5.4.2 Senders Time Series Version

| <b>ACTION</b>                  | <b>DESCRIPTION</b>  |
|--------------------------------|---|
| <b>Definition of element</b>   | <p>The time series version is changed only if a given time series has changed.</p> <p>The time series version must be the same as the document version (called message version in the information model) number in which it has been added or changed. All time series, whether changed or not, must be retransmitted when a document is resent.</p> <p>In the case of the deletion of a time series, it is resent with all periods zeroed out.</p> |
| <b>Description</b>             | <p>The version number assigned to the time series in question.</p> <p>The time series version shall be the same as the document version number for its initial transmission.</p> <p>Each time a time series is modified the version number is assigned the same value as the schedule document version number used to transmit the modified information.</p>  |
| <b>Size</b>                    | The maximum size of a time series version is 3 numeric characters with no leading zeros.  |
| <b>Applicability</b>           | This information is mandatory.  |
| <b>Dependence requirements</b> | This data element is always associated with the sender's time series identification.  |

#### 5.4.3 Business type

| <b>ACTION</b>                  | <b>DESCRIPTION</b>  |
|--------------------------------|---|
| <b>Definition of element</b>   | Identifies the trading nature of an energy product.   |
| <b>Description</b>             | The nature of the time series for which the product is handled.<br><b>Refer to ETSO Code list document for the valid list of codes.</b> |
| <b>Size</b>                    | The maximum length of this information is 3 alphanumeric characters.  |
| <b>Applicability</b>           | This information is mandatory.  |
| <b>Dependence requirements</b> | None.   |

#### 5.4.4 Product

| <b>ACTION</b>                  | <b>DESCRIPTION</b>  |
|--------------------------------|---|
| <b>Definition of element</b>   | Identification of an energy product such as Power, energy, reactive power, transport capacity, etc.   |
| <b>Description</b>             | This identifies the product for which the time series is reporting. There is a different time series for each product<br><b>Refer to ETSO Code list document for the valid list of codes.</b> |
| <b>Size</b>                    | The maximum length of this information is 13 numeric characters.  |
| <b>Applicability</b>           | This information is mandatory.  |
| <b>Dependence requirements</b> | None.   |

#### 5.4.5 Object aggregation

| <b>ACTION</b>                  | <b>DESCRIPTION</b>  |
|--------------------------------|---|
| <b>Definition of element</b>   | Identifies how the object is aggregated.  |
| <b>Description</b>             | This identified to what extent the object is aggregated<br><b>Refer to ETSO Code list document for the valid list of codes.</b> |
| <b>Size</b>                    | The maximum length of this information is 3 alphanumeric characters.  |
| <b>Applicability</b>           | This information is mandatory.  |
| <b>Dependence requirements</b> | None.   |

#### 5.4.6 In Area – Coding Scheme

| ACTION                         | DESCRIPTION  |
|--------------------------------|--|
| <b>Definition of element</b>   | The area where the product is being delivered  |
| <b>Description</b>             | The identification of the in area.<br>The codification scheme used for the coded identification is indicated by the coding scheme attribute. It is a 3 character alphanumeric code. <b>Refer to ETSO Code list document for the valid list of codes.</b> |
| <b>Size</b>                    | The maximum length of the in area code is 18 alphanumeric characters.<br>The maximum length of the coding scheme code is 3 alphanumeric characters.  |
| <b>Applicability</b>           | This information is dependent.   |
| <b>Dependence requirements</b> | Refer to the matrix in 5.2.1 for dependency requirements.  |

#### 5.4.7 Out Area – Coding Scheme

| ACTION                         | DESCRIPTION   |
|--------------------------------|---|
| <b>Definition of element</b>   | The area where the product is being extracted.  |
| <b>Description</b>             | The identification of the out area.<br>The codification scheme used for the coded identification is indicated by the coding scheme attribute. It is a 3 character alphanumeric code. <b>Refer to ETSO Code list document for the valid list of codes.</b> |
| <b>Size</b>                    | The maximum length of the out area code is 18 alphanumeric characters.<br>The maximum length of the coding scheme code is 3 alphanumeric characters.  |
| <b>Applicability</b>           | This information is dependent.  |
| <b>Dependence requirements</b> | Refer to the matrix in 5.2.1 for dependency requirements.   |

#### 5.4.8 Metering Point Identification – Coding Scheme

| <b>ACTION</b>                  | <b>DESCRIPTION</b>   |
|--------------------------------|--|
| <b>Definition of element</b>   | <p>The identification of the location where one or more products are metered.</p> <p>This may be one physical location or the combination of several points together.</p> <p>A metering point identification may be divided into a value and an optional sub-value.</p>  |
| <b>Description</b>             | <p>The identification of the location where one or more products are metered.</p> <p>A metering point identification code may be divided into 3 parts:</p> <ul style="list-style-type: none"><li>- A value.</li><li>- An optional sub-value in order to satisfy the needs of more precise identification. The use or not of the sub-value is determined by market requirements.</li><li>- A coding scheme.</li></ul> <p><b>Refer to ETSO Code list document for the valid list of codes.</b></p> |
| <b>Size</b>                    | <p>The maximum length of the identification value is 35 alphanumeric characters.</p> <p>If the identification sub value is used its maximum size is 35 characters.</p> <p>The coding scheme is 3 alphanumeric characters.</p>  |
| <b>Applicability</b>           | <p>This information is dependent.</p>  |
| <b>Dependence requirements</b> | <p>Refer to the matrix in 5.2.1 for dependency requirements.</p>   |

#### 5.4.9 In Party – Coding Scheme

| ACTION                         | DESCRIPTION  |
|--------------------------------|--|
| <b>Definition of element</b>   | The party that is putting the product into the area.   |
| <b>Description</b>             | <p>The identification of the party putting the product into the in area.</p> <p>The codification scheme used for the coded identification is indicated by the coding scheme attribute. It is a 3 character alphanumeric code. <b>Refer to ETSO Code list document for the valid list of codes.</b></p> |
| <b>Size</b>                    | <p>The maximum length of this information is 16 alphanumeric characters.</p> <p>The maximum length of the coding scheme code is 3 alphanumeric characters.</p>   |
| <b>Applicability</b>           | This information is dependent.   |
| <b>Dependence requirements</b> | Refer to the matrix in 5.2.1 for dependency requirements.  |

#### 5.4.10 Out Party – Coding Scheme

| ACTION                         | DESCRIPTION  |
|--------------------------------|--|
| <b>Definition of element</b>   | The party taking the product out of the area.  |
| <b>Description</b>             | <p>The identification of the party taking the product out of the out area.</p> <p>The codification scheme used for the coded identification is indicated by the coding scheme attribute. It is a 3 character alphanumeric code. <b>Refer to ETSO Code list document for the valid list of codes.</b></p> |
| <b>Size</b>                    | <p>The maximum length of this information is 16 alpha-numeric characters.</p> <p>The maximum length of the coding scheme code is 3 alphanumeric characters.</p>  |
| <b>Applicability</b>           | This information is dependent.   |
| <b>Dependence requirements</b> | Refer to the matrix in 5.2.1 for dependency requirements.  |

#### 5.4.11 Capacity Contract Type

| <b>ACTION</b>                  | <b>DESCRIPTION</b>   |
|--------------------------------|--|
| <b>Definition of element</b>   | <p>The contract type defines the conditions under which the capacity was allocated and handled.</p> <p>e.g.: daily auction, weekly auction, monthly auction, yearly auction, etc.</p> <p>The significance of this type is dependent on the in area and out area specific coded working methods.</p> <p>The transmission capacity allocator responsible for the area in question auctions defines the contract type to be used.</p> |
| <b>Description</b>             | <p>This information defines the conditions under which the capacity was allocated and handled.</p> <p><b>Refer to ETSO Code list document for the valid list of codes.</b></p>   |
| <b>Size</b>                    | <p>The maximum length of this information is 3 alphanumeric characters.</p>  |
| <b>Applicability</b>           | <p>This information is dependent.</p>  |
| <b>Dependence requirements</b> | <p>Refer to the matrix in 5.2.1 for dependency requirements.</p>   |

#### 5.4.12 Capacity agreement identification

| <b>ACTION</b>                  | <b>DESCRIPTION</b>   |
|--------------------------------|--|
| <b>Definition of element</b>   | <p>The identification of an agreement for the allocation of capacity to a party.</p>   |
| <b>Description</b>             | <p>This provides the identification of the allocated capacity by a capacity allocator. The same identification must be always used even when the same capacity is fully or partially resold.</p> |
| <b>Size</b>                    | <p>The maximum length of this information is 35 alpha-numeric characters.</p>  |
| <b>Applicability</b>           | <p>This information is dependent.</p>  |
| <b>Dependence requirements</b> | <p>Refer to the matrix in 5.2.1 for dependency requirements.</p>   |

#### 5.4.13 Measurement Unit

| ACTION                         | DESCRIPTION   |
|--------------------------------|---|
| <b>Definition of element</b>   | The unit of measure which is applied to the quantities in which the time series is expressed.   |
| <b>Description</b>             | <p>The unit if measurement used for the quantities expressed within the time series.</p> <p><i>ETSO recommends that time series that are sent for day ahead schedules use the “power” unit of measure (MAW). Refer to paragraph 3.4 for more details.</i></p> <p><b>Refer to ETSO Code list document for the valid list of codes.</b></p> |
| <b>Size</b>                    | The maximum length of this information is 3 alphanumeric characters.  |
| <b>Applicability</b>           | This information is mandatory.  |
| <b>Dependence requirements</b> | None.   |

#### 5.5 Rules governing the Reason class

The reason class is generally used during intra-day processing. It provides the reason for the modifications that are being carried out on the time series. It is not currently considered for use in other contexts.

##### 5.5.1 Reason code

| ACTION                         | DESCRIPTION  |
|--------------------------------|--|
| <b>Definition of element</b>   | A code indication that a textual reason for modification will be provided in the reason text. Currently the following code has been identified :<br>A48 : Modification reason.   |
| <b>Description</b>             | The reason code is used to enable processing of the reason text which, depending on market conditions, should be provided in intra day trading. In this context only one reason code has been defined (A48). No other codes are permitted. |
| <b>Size</b>                    | The maximum length of this information is 3 alphanumeric characters.   |
| <b>Applicability</b>           | This information is dependent on market conditions and shall only be used for intra day trading.   |
| <b>Dependence requirements</b> | This information is mandatory for intra day trading if market conditions so dictate.   |

### 5.5.2 Reason Text

| <b>ACTION</b>                  | <b>DESCRIPTION</b>  |
|--------------------------------|---|
| <b>Definition of element</b>   | Textual reason for a modification.  |
| <b>Description</b>             | The textual reason must be provided where the reason code A48 is present. |
| <b>Size</b>                    | The maximum length of this information is 512 alphanumeric characters.    |
| <b>Applicability</b>           | This information is dependent.  |
| <b>Dependence requirements</b> | None.   |

### 5.6 Rules governing the Period class

There is only one period class for a time series schedule.

The time interval covered by the period shall be equal to the complete period of the schedule.

The number of time intervals within a time series as characterized by the resolution must completely cover the period's time interval.

If a time series is suppressed then the interval quantities are all zeroed out.

A senders minimal resolution must respect market rules.

#### 5.6.1 Time Interval.

| <b>ACTION</b>                  | <b>DESCRIPTION</b>   |
|--------------------------------|--|
| <b>Definition of element</b>   | The start and end date and time of the time interval of the period in question. The time of the start and end of the period is expressed in UTC with the following format:<br>YYYY-MM-DDTHH:MMZ/YYYY-MM-DDTHH:MMZ. |
| <b>Description</b>             | This information provides the start and end date and time of the period being reported.  |
| <b>Size</b>                    | The start and end date and time must be expressed in compliance with the following format:<br>YYYY-MM-DDTHH:MMZ/YYYY-MM-DDTHH:MMZ.   |
| <b>Applicability</b>           | This information is mandatory.   |
| <b>Dependence requirements</b> | None.  |



### 5.6.2 Resolution

| <b>ACTION</b>                  | <b>DESCRIPTION</b>   |
|--------------------------------|--|
| <b>Definition of element</b>   | The resolution defining the number of periods that the time interval is divided.   |
| <b>Description</b>             | This information the resolution of a single period. The time interval must contain a whole number of periods as expressed by the resolution.   |
| <b>Size</b>                    | <p>The resolution is expressed in compliance with ISO 8601 in the following format:</p> <p style="text-align: center;">PnYnMnDTnHnMnS.</p> <p>Where nY expresses a number of years, nM a number of months, nD a number of days.</p> <p>The letter “T” separates the date expression from the time expression and after it nH identifies a number of hours, nM a number of minutes and nS a number of seconds.</p> <p>For example PT15M expresses a 15 minute resolution.</p> |
| <b>Applicability</b>           | This information is mandatory.   |
| <b>Dependence requirements</b> | None.  |

### 5.7 Rules governing the Interval class

The interval class contains the relative position within a time interval period and the quantity associated with that position.

The position must begin with 1 and increment by 1 for each subsequent position forming a series of contiguous numbers covering the complete range of the period.

Any leading zeros in a position shall be suppressed.

Negative values are not allowed in schedule time series quantities except in the case where a netted business type is employed. If the direction of the product flow changes during the schedule period the two time series with opposite In area, Out area and parties are required.

Zero value periods must be sent.

Leading zeros in a quantity shall be suppressed before transmission.

If the direction of the product flow changes during the schedule time interval the two time series with opposite in area, out area or parties are required.

### 5.7.1 Pos

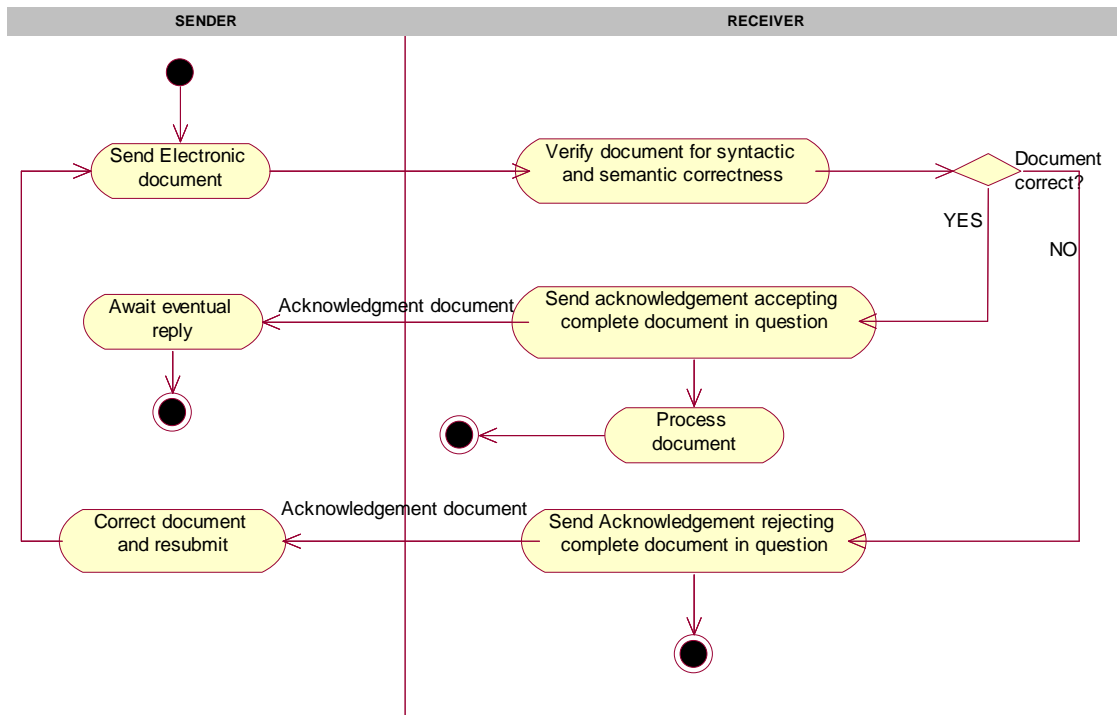
| <b>ACTION</b>                  | <b>DESCRIPTION</b>  |
|--------------------------------|---|
| <b>Definition of element</b>   | The relative position of a period within a time interval.   |
| <b>Description</b>             | This information provides the relative position of a period within a time interval.   |
| <b>Size</b>                    | The relative position must be expressed as a numeric integer value beginning with 1. All leading zeros must be suppressed. The maximum number of characters is 6. |
| <b>Applicability</b>           | This information is mandatory.  |
| <b>Dependence requirements</b> | None.   |

### 5.7.2 Qty

| <b>ACTION</b>                  | <b>DESCRIPTION</b>  |
|--------------------------------|---|
| <b>Definition of element</b>   | The quantity of the product scheduled for the position within the time interval in question.  |
| <b>Description</b>             | <p>This information defines the quantity of energy scheduled for the position within the time interval period.</p> <p>A decimal point value may be used to express values that are inferior to the defined unit of measurement.</p> <p>The decimal mark that separates the digits forming the integral part of a number from those forming the fractional part. (ISO 6093) shall always be a period (“.”).</p> <p>All quantities are non-signed values except in the case where netted business types are used.</p> |
| <b>Size</b>                    | <p>The maximum length of this information is 17 numeric characters (decimal mark and sign, if used, included). All leading zeros are to be suppressed.</p> <p>The number of decimal places identifying the fractional part of the quantity depends on local market rules.</p>   |
| <b>Applicability</b>           | This information is mandatory.  |
| <b>Dependence requirements</b> | None.   |

## 6. ACKNOWLEDGEMENT DOCUMENT IMPLEMENTATION

The Acknowledgement document fits into a general ETSO acknowledgement process as outlined in the figure below.



**Figure 7 Acknowledgement process**

The Acknowledgement document shall be used in conjunction with the transmission of all electronic documents defined in the ESS process Information flow diagramme as requiring it for application acknowledgement.

When a document is received it will be verified at the application level to ensure that there are no faults in it that could prevent its correct processing.

A document that is valid after this verification which necessitates the generation of an application acknowledgement shall require the transmission of an ETSO Acknowledgement document accepting in its entirety the document in question.

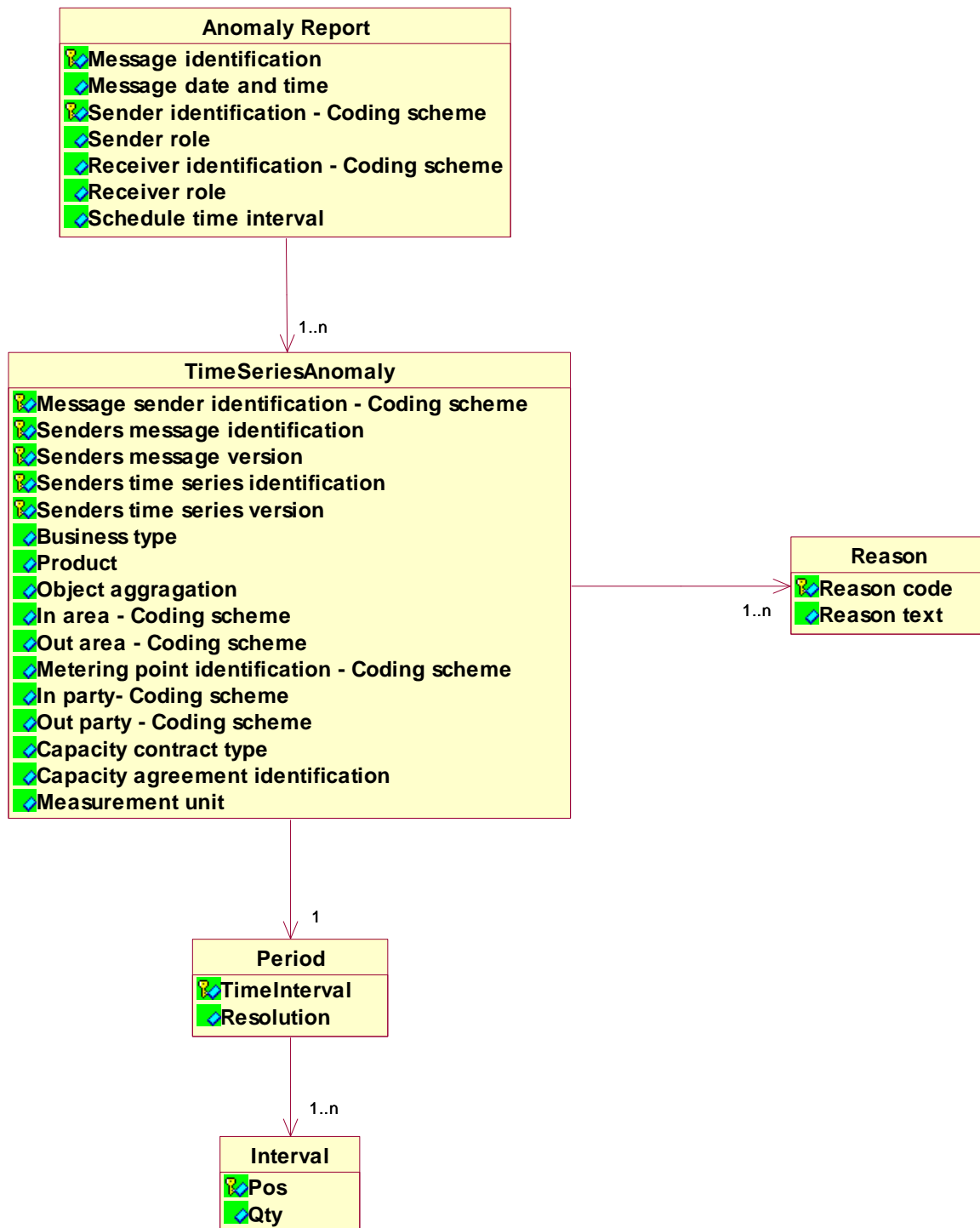
A document that has an error in it which necessitates the generation of an application acknowledgement shall require the transmission of an ETSO Acknowledgement document that completely or partially rejects the document in question.

Note: The Acknowledgement document should be at least from version 4.0. It can be downloaded from the ETSO TF14 website.

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## 7. ANOMALY REPORT IMPLEMENTATION

### 7.1 Information model



## 7.2 Rules governing the anomaly report class

An anomaly report is generated as soon as all the information necessary to balance a party's time series becomes available. If there are any anomalies discovered during this phase, an anomaly report is sent to all involved parties. The anomaly contains only the time series that have been identified as being in error for the party in question.

Each party is responsible for ensuring that the problem is satisfactorily resolved prior to the schedule cut-off time. Corrective action by one of the parties requires the retransmission of the offending schedule document with the required corrections. If only one party is in error, that party alone will transmit his corrective schedule document.

### 7.2.1 Message Identification

| ACTION                         | DESCRIPTION  |
|--------------------------------|--|
| <b>Definition of element</b>   | Unique identification of the anomaly report that is sent to involved parties in phase 2 of the schedule process.   |
| <b>Description</b>             | An anomaly report is identified by a unique number generated by the sender to serve as the identification of the report in any further communication on the subject. |
| <b>Size</b>                    | An anomaly report identification may not exceed 35 alphanumeric characters.  |
| <b>Applicability</b>           | This information is mandatory.   |
| <b>Dependence requirements</b> | None.  |

### 7.2.2 Message Date And Time

| ACTION                         | DESCRIPTION  |
|--------------------------------|--|
| <b>Definition of element</b>   | Date and time of transmission of the anomaly report. The time must be expressed in UTC as<br>YYYY-MM-DDTHH:MM:SSZ. |
| <b>Description</b>             | The date and time that the document was prepared for transmission by the sender.                                   |
| <b>Size</b>                    | The date and time must be expressed in UTC as<br>YYYY-MM-DDTHH:MM:SSZ.   |
| <b>Applicability</b>           | This information is mandatory.   |
| <b>Dependence requirements</b> | None.  |

### 7.2.3 Sender Identification – Coding Scheme

| ACTION                         | DESCRIPTION   |
|--------------------------------|---|
| <b>Definition of element</b>   | Identification of the party who is sending the anomaly report.  |
| <b>Description</b>             | <p>The sender of the document is identified by a unique coded identification.</p> <p>The codification scheme used for the coded identification is indicated by the coding scheme attribute. It is a 3 character alphanumeric code. <b>Refer to ETSO Code list document for the valid list of codes.</b></p> |
| <b>Size</b>                    | <p>The maximum length of a sender's identification is 16 alphanumeric characters.</p> <p>The maximum length of the coding scheme code is 3 alphanumeric characters.</p>   |
| <b>Applicability</b>           | This information is mandatory.  |
| <b>Dependence requirements</b> | None.   |

### 7.2.4 Sender Role

| ACTION                         | DESCRIPTION  |
|--------------------------------|--|
| <b>Definition of element</b>   | Identification of the role played by the sender.   |
| <b>Description</b>             | <p>The sender role, which identifies the role of the sender within the document.</p> <p><b>Refer to ETSO Code list document for the valid list of codes.</b></p> |
| <b>Size</b>                    | The maximum length of a sender role is 3 alphanumeric characters.  |
| <b>Applicability</b>           | This information is mandatory.   |
| <b>Dependence requirements</b> | None.  |

### 7.2.5 Receiver Identification – Coding Scheme

| ACTION                         | DESCRIPTION   |
|--------------------------------|---|
| <b>Definition of element</b>   | Identification of the party who is receiving the anomaly report.  |
| <b>Description</b>             | <p>The receiver of the document is identified by a unique coded identification.</p> <p>The codification scheme used for the coded identification is indicated by the coding scheme attribute. It is a 3 character alphanumeric code. <b>Refer to ETSO Code list document for the valid list of codes.</b></p> |
| <b>Size</b>                    | <p>The maximum length of a receiver's identification is 16 alphanumeric characters.</p> <p>The maximum length of the coding scheme code is 3 alphanumeric characters.</p>   |
| <b>Applicability</b>           | This information is mandatory.  |
| <b>Dependence requirements</b> | None.   |

### 7.2.6 Receiver Role

| ACTION                         | DESCRIPTION  |
|--------------------------------|--|
| <b>Definition of element</b>   | Identification of the role played by the receiver.   |
| <b>Description</b>             | <p>The receiver role, which identifies the role of the receiver within the document.</p> <p><b>Refer to ETSO Code list document for the valid list of codes.</b></p> |
| <b>Size</b>                    | The maximum length of a receiver role is 3 alphanumeric characters.  |
| <b>Applicability</b>           | This information is mandatory.   |
| <b>Dependence requirements</b> | None.  |



### 7.2.7 Schedule time interval

| <b>ACTION</b>                  | <b>DESCRIPTION</b>   |
|--------------------------------|--|
| <b>Definition of element</b>   | The start and end date and time of the schedule period covered by the anomaly report The interval must be expressed in UTC as YYYY-MM-DDTHH:MMZ/YYYY-MM-DDTHH:MMZ. |
| <b>Description</b>             | This information provides the start and end date and time of the schedule period for which the anomaly report is being generated.                                  |
| <b>Size</b>                    | The start and end date and time must respect the format: YYYY-MM-DDTHH:MMZ/YYYY-MM-DDTHH:MMZ.  |
| <b>Applicability</b>           | This information is mandatory.   |
| <b>Dependence requirements</b> | None.  |

### 7.3 Rules governing the Reason class

In an anomaly report errors are detailed at the time series level to identify the anomalies that have occurred.

The reason codes imply that certain elements are absent or present as detailed in the following table:

| Time series level elements |     |
|----------------------------|-----|
| M                          | A09 |
| M                          | A27 |
| M                          | A28 |
| M                          | A29 |

#### 7.3.1 Reason code

| ACTION                         | DESCRIPTION   |
|--------------------------------|---|
| <b>Definition of element</b>   | A code providing the status of the anomaly. Currently the following status's have been identified:<br><b><u>At the timeseries level</u></b><br>A09: Time series not matching<br>A27: Cross border capacity exceeded<br>A28: Counterpart time series missing<br>A29: Counterpart time series quantity differences<br>Refer to ETSO code list document for additional possible codes. |
| <b>Description</b>             | The reason code provides the status of the anomaly. As many reason elements as necessary may be used.   |
| <b>Size</b>                    | The maximum length of this information is 3 alphanumeric characters.  |
| <b>Applicability</b>           | This information is dependent.  |
| <b>Dependence requirements</b> | This information is at the time series level to provide related explanatory information.  |

### 7.3.2 Reason Text

| ACTION                         | DESCRIPTION  |
|--------------------------------|--|
| <b>Definition of element</b>   | Textual rejection of an anomaly.   |
| <b>Description</b>             | If the code does not provide all the information to clearly identify an error the reason text may be used. |
| <b>Size</b>                    | The maximum length of this information is 512 alphanumeric characters.                                     |
| <b>Applicability</b>           | This information is dependent.   |
| <b>Dependence requirements</b> | Used only if the reason code is insufficient to identify an error.   |

### 7.4 Rules governing the Time Series anomaly class

All the time series that are found to be in error for a particular party may be assembled together in the anomaly report for transmission. The assembly of the time series depends on the report's destination. Anomaly reports only concern errors requiring immediate action in order to enable the time series in question to be taken into consideration for the planned schedule. The errors that caused the rejection of the time series may be identified at this level, if required.

#### 7.4.1 Message Sender Identification – Coding Scheme

| ACTION                         | DESCRIPTION   |
|--------------------------------|---|
| <b>Definition of element</b>   | The identification of the party whose time series is in anomaly.  |
| <b>Description</b>             | A unique identification within the schedule system.<br><br>The codification scheme used for the coded identification is indicated by the coding scheme attribute. It is a 3 character alphanumeric code. <b>Refer to ETSO Code list document for the valid list of codes.</b> |
| <b>Size</b>                    | The maximum size of an identification code is 16 alphanumeric characters.<br><br>The maximum length of the coding scheme code is 3 alphanumeric characters.   |
| <b>Applicability</b>           | This information is mandatory.  |
| <b>Dependence requirements</b> | None.   |

#### 7.4.2 Senders Message Identification

| <b>ACTION</b>                  | <b>DESCRIPTION</b>   |
|--------------------------------|--|
| <b>Definition of element</b>   | The identification of the document where the time series is in error.  |
| <b>Description</b>             | The identification of the schedule document sent by the concerned party containing the time series in error. |
| <b>Size</b>                    | The maximum size of this information is 35 alphanumeric characters.  |
| <b>Applicability</b>           | This information is mandatory.   |
| <b>Dependence requirements</b> | None.  |

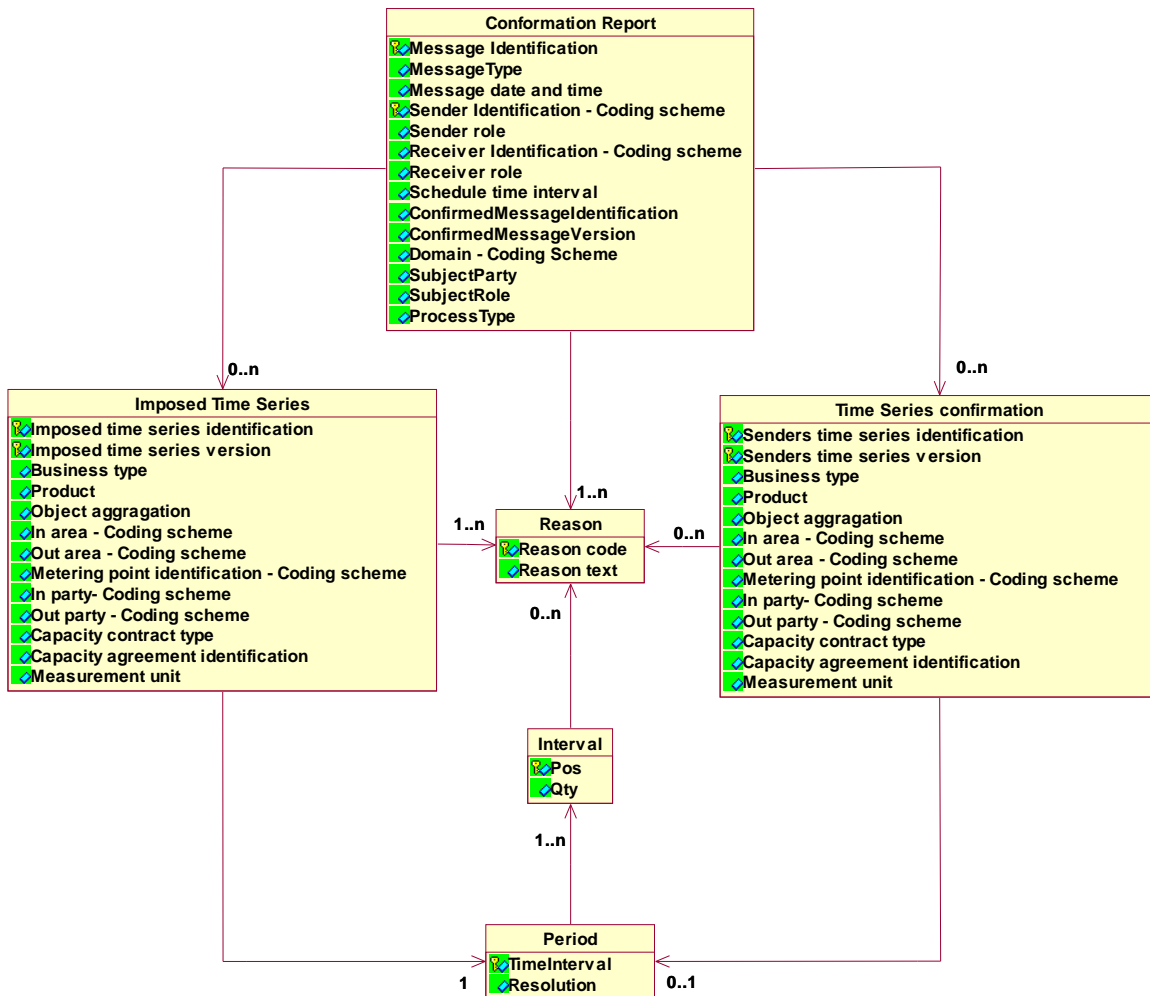
#### 7.4.3 Senders Message Version

| <b>ACTION</b>                  | <b>DESCRIPTION</b>   |
|--------------------------------|--|
| <b>Definition of element</b>   | The identification of the version of the document in question.                       |
| <b>Description</b>             | The version number of the schedule document containing the time series in error.     |
| <b>Size</b>                    | The maximum size of a time series version is 3 numeric characters.                   |
| <b>Applicability</b>           | This information is mandatory.   |
| <b>Dependence requirements</b> | This data element is always associated with the sender's time series identification. |

The attributes Senders Time Series Identification, Senders Time Series Version, BusinessType, Product, Object Aggregation, In Area, Out Area, Meteringpoint Identification, In Party, Out Party, Capacity Contract Type, Capacity Agreement Identification and Measurement Unit as well as the corresponding Period and Interval information contain the identical values of the time series in the referenced document.

## 8. TIME SERIES CONFIRMATION REPORT IMPLEMENTATION

### 8.1 Information model



### 8.2 Rules governing the confirmation report class

A confirmation report is generated once a cutoff 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 cutoff time refers not only to daily or intra daily markets as considered in this guide, but also to the different markets that cover imbalance adjustments, reserve allocation, etc. (ancillary services markets).

The system operator then informs all interested parties of the situation in respect to their schedule.

The confirmation report provides the market participant's global position, i.e. 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.

Their schedule can either be globally confirmed, or in the case of discrepancies, they will be informed of what aspects of their time series have been finally accepted.

A confirmation report may be sent to a market participant who has not sent beforehand a Schedule Message document. This may occur for example whenever a time series has to be imposed on a market participant in order to confirm obligations that have been previously agreed and for which the market participant has not complied.

This document terminates the schedule planning process.

### 8.2.1 Message Identification

| <b>ACTION</b>                  | <b>DESCRIPTION</b>   |
|--------------------------------|--|
| <b>Definition of element</b>   | Unique identification of the confirmation report that is sent to all involved parties after phase 3 of the schedule process.   |
| <b>Description</b>             | A confirmation report is identified by a unique number generated by the sender to serve as the identification of the report in any further communication on the subject. |
| <b>Size</b>                    | A confirmation report identification code may not exceed 35 alphanumeric characters.   |
| <b>Applicability</b>           | This information is mandatory.   |
| <b>Dependence requirements</b> | None.  |

### 8.2.2 Message Type

| <b>ACTION</b>                  | <b>DESCRIPTION</b>   |
|--------------------------------|--|
| <b>Definition of element</b>   | The coded type of the document being sent.   |
| <b>Description</b>             | The confirmation report document type identifies the information flow characteristics.<br><b>Refer to ETSO Code list document for the valid list of codes.</b> |
| <b>Size</b>                    | The confirmation report document type value may not exceed 3 alphanumeric characters.  |
| <b>Applicability</b>           | This information is mandatory.   |
| <b>Dependence requirements</b> | None.  |

### 8.2.3 Message Date And Time

| ACTION                  | DESCRIPTION  |
|-------------------------|--|
| Definition of element   | Date and time of the preparation for transmission of the confirmation report.    |
| Description             | The date and time that the document was prepared for transmission by the sender. |
| Size                    | The date and time must be expressed in UTC as YYYY-MM-DDTHH:MM:SSZ.              |
| Applicability           | This information is mandatory.   |
| Dependence requirements | None.  |

### 8.2.4 Sender Identification – Coding Scheme

| ACTION                  | DESCRIPTION   |
|-------------------------|---|
| Definition of element   | Identification of the party who is sending the confirmation report.   |
| Description             | <p>The sender of the document is identified by a unique coded identification.</p> <p>The codification scheme used for the coded identification is indicated by the coding scheme attribute. It is a 3 character alphanumeric code. <b>Refer to ETSO Code list document for the valid list of codes.</b></p> |
| Size                    | <p>The maximum length of a sender's identification code is 16 alphanumeric characters.</p> <p>The maximum length of the coding scheme code is 3 alphanumeric characters.</p>  |
| Applicability           | This information is mandatory.  |
| Dependence requirements | None.   |

### 8.2.5 Sender Role

| ACTION                  | DESCRIPTION  |
|-------------------------|--|
| Definition of element   | Identification of the role played by the sender.   |
| Description             | <p>The sender role, which identifies the role of the sender within the document.</p> <p><b>Refer to ETSO Code list document for the valid list of codes.</b></p> |
| Size                    | The maximum length of a sender role is 3 alphanumeric characters.  |
| Applicability           | This information is mandatory.   |
| Dependence requirements | None.  |

### 8.2.6 Receiver Identification – Coding Scheme

| ACTION                         | DESCRIPTION   |
|--------------------------------|---|
| <b>Definition of element</b>   | Identification of the party who is receiving the confirmation report.   |
| <b>Description</b>             | <p>The receiver of the document is identified by a unique coded identification.</p> <p>The codification scheme used for the coded identification is indicated by the coding scheme attribute. It is a 3 character alphanumeric code. <b>Refer to ETSO Code list document for the valid list of codes.</b></p> |
| <b>Size</b>                    | <p>The maximum length of a receiver's identification code is 16 alphanumeric characters.</p> <p>The maximum length of the coding scheme code is 3 alphanumeric characters.</p>  |
| <b>Applicability</b>           | This information is mandatory.  |
| <b>Dependence requirements</b> | None.   |

### 8.2.7 Receiver Role

| ACTION                         | DESCRIPTION  |
|--------------------------------|--|
| <b>Definition of element</b>   | Identification of the role played by the receiver.   |
| <b>Description</b>             | <p>The receiver role, which identifies the role of the receiver within the document.</p> <p><b>Refer to ETSO Code list document for the valid list of codes.</b></p> |
| <b>Size</b>                    | The maximum length of a receiver role is 3 alphanumeric characters.  |
| <b>Applicability</b>           | This information is mandatory.   |
| <b>Dependence requirements</b> | None.  |



### 8.2.8 Schedule time interval

| <b>ACTION</b>                  | <b>DESCRIPTION</b>  |
|--------------------------------|---|
| <b>Definition of element</b>   | The beginning date and time and the ending date and time of the schedule period covered by the confirmation report.   |
| <b>Description</b>             | 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. |
| <b>Size</b>                    | The start and end date and time must respect the format:<br>YYYY-MM-DDTHH:MMZ/YYYY-MM-DDTHH:MMZ.<br>The time must be expressed in UTC.                          |
| <b>Applicability</b>           | This information is mandatory.  |
| <b>Dependence requirements</b> | None.   |

### 8.2.9 Confirmed Message Identification

| <b>ACTION</b>                  | <b>DESCRIPTION</b>   |
|--------------------------------|--|
| <b>Definition of element</b>   | The identification of the market participant's document containing his global position that is being confirmed.  |
| <b>Description</b>             | The identification of the document that was sent by the concerned party containing his global position.  |
| <b>Size</b>                    | The maximum size of this information is 35 alphanumeric characters.  |
| <b>Applicability</b>           | This information is dependent.   |
| <b>Dependence requirements</b> | The confirmed document identification is only provided where the market participant has submitted a schedule. This is not supplied in cases where there is uniquely an imposed time series due to non-reception from the market participant of a schedule. |

### 8.2.10 Confirmed Message Version

| <b>ACTION</b>                  | <b>DESCRIPTION</b>   |
|--------------------------------|--|
| <b>Definition of element</b>   | The document version that was taken into consideration.                            |
| <b>Description</b>             | The version of the document being confirmed.                                       |
| <b>Size</b>                    | The maximum size of a time series version is 3 numeric characters.                 |
| <b>Applicability</b>           | This information is dependent.   |
| <b>Dependence requirements</b> | This data element is always associated with the confirmed document identification. |

### 8.2.11 Domain - codingScheme

| <b>ACTION</b>                  | <b>DESCRIPTION</b>   |
|--------------------------------|--|
| <b>Definition of element</b>   | The domain covered within the document being confirmed.  |
| <b>Description</b>             | <p>The identification of the domain that is covered in the document being confirmed.</p> <p>The codification scheme used for the coded identification is indicated by the coding scheme attribute. It is a 3 character alphanumeric code. <b>Refer to ETSO Code list document for the valid list of codes.</b></p> |
| <b>Size</b>                    | <p>The maximum length of this information is 16 alphanumeric characters.</p> <p>The maximum length of the coding scheme code is 3 alphanumeric characters.</p>   |
| <b>Applicability</b>           | This information is dependent.   |
| <b>Dependence requirements</b> | Usage is defined by local market rules.  |

### 8.2.12 Subject Party – codingScheme

| <b>ACTION</b>                  | <b>DESCRIPTION</b>   |
|--------------------------------|--|
| <b>Definition of element</b>   | The Party covered within the document being confirmed.   |
| <b>Description</b>             | <p>The party that is the subject of the being confirmed.</p> <p>The codification scheme used for the coded identification is indicated by the coding scheme attribute. It is a 3 character alphanumeric code. <b>Refer to ETSO Code list document for the valid list of codes.</b></p> |
| <b>Size</b>                    | <p>The maximum length of this information is 16 alphanumeric characters.</p> <p>The maximum length of the coding scheme code is 3 alphanumeric characters.</p>   |
| <b>Applicability</b>           | This information is dependent.   |
| <b>Dependence requirements</b> | Usage is defined by local market rules   |

### 8.2.13 Subject Role

| <b>ACTION</b>                  | <b>DESCRIPTION</b>   |
|--------------------------------|--|
| <b>Definition of element</b>   | The Role of the Subject Party covered within the document being confirmed.   |
| <b>Description</b>             | Where the subject party is described then the subjectrole must be used to describe the role of the party<br><b>Refer to ETSO Code list document for the valid list of codes.</b> |
| <b>Size</b>                    | The maximum length of this information is 3 alphanumeric characters.   |
| <b>Applicability</b>           | This information is dependent.   |
| <b>Dependence requirements</b> | Usage is defined by local market rules. To be used only in cases where the Subject Party is a Balance Responsible Party..  |

### 8.2.14 Process Type

| <b>ACTION</b>                  | <b>DESCRIPTION</b>   |
|--------------------------------|--|
| <b>Definition of element</b>   | The nature of the process defined in the document being confirmed.   |
| <b>Description</b>             | The process type of the document being confirmed<br><b>Refer to ETSO Code list document for the valid list of codes.</b> |
| <b>Size</b>                    | The process type value may not exceed 3 alphanumeric characters.   |
| <b>Applicability</b>           | This information is dependent.   |
| <b>Dependence requirements</b> | Usage is defined by local market rules.  |

### 8.3 Rules governing the Reason class

In a confirmation report reason codes can be detailed at three levels (the period class is assimilated with the time series level):

1. At the header level to identify that all the schedules have been accepted, partially accepted or rejected
2. At the time series level to identify where differences have occurred.
3. At the interval level to indicate where quantities have been increased, decreased, or where default quantities have been applied.

| Reason code | Document level elements | Time series level elements |            | Interval level elements              |
|-------------|-------------------------|----------------------------|------------|--------------------------------------|
| A06         | M                       | M                          |            | M                                    |
| A07         | M                       | M                          | A20        |                                      |
|             |                         | M                          | A26        |                                      |
|             |                         | M                          | A30<br>A63 | M<br>Blank,<br>A43,<br>A44 or<br>A45 |
| A08         | M                       | M                          | A20        |                                      |

The time series level and interval level can also be used in the case of imposed time series (used exclusively in the case of reason code A30).

### 8.3.1 Reason code

| ACTION                         | DESCRIPTION  |
|--------------------------------|--|
| <b>Definition of element</b>   | <p>A code providing the status of the information. Currently the following status's have been identified :</p> <p><b><u>At the document level :</u></b><br/>A06: Schedule global position accepted<br/>A07: Schedule global position partially accepted<br/>A08: Schedule global position rejected</p> <p><b><u>At the timeseries level :</u></b><br/>A20: Time series fully rejected<br/>A26: Default time series applied<br/>A30: Imposed Time series from nominated party's time series (party identified in reason text)<br/>A63: Time series modified</p> <p><b><u>At the time interval level :</u></b><br/>A43: Quantity increased<br/>A44: Quantity decreased<br/>A45: Default quantity applied<br/>Refer to ETSO code list document for additional possible codes.</p> |
| <b>Description</b>             | <p>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.</p>  |
| <b>Size</b>                    | <p>The maximum length of this information is 3 alphanumeric characters.</p>  |
| <b>Applicability</b>           | <p>This information is dependent.</p>  |
| <b>Dependence requirements</b> | <p>This information is used either at the header level to give a global description of the error, at the time series or time interval quantities levels to provide more detailed information.</p>  |

### 8.3.2 Reason Text

| ACTION                         | DESCRIPTION   |
|--------------------------------|---|
| <b>Definition of element</b>   | <p>Textual explanation of an eventual difference .</p>  |
| <b>Description</b>             | <p>If the code does not provide all the information to clearly identify a difference the reason text may be used.</p> |
| <b>Size</b>                    | <p>The maximum length of this information is 512 alphanumeric characters.</p>   |
| <b>Applicability</b>           | <p>This information is dependent.</p>   |
| <b>Dependence requirements</b> | <p>Used only if the reason code is insufficient to identify a difference.</p>   |

#### **8.4 Rules governing the Time Series confirmation class**

All the time series that have been sent by the concerned party are identified in the confirmation report. If there are discrepancies these are identified with a reason code and eventual text. A time series if being rejected in the confirmation report shall not contain any period information.

The attributes Senders Time Series Identification, Senders Time Series Version, BusinessType, Product, Object Aggregation, In Area, Out Area, Meteringpoint Identification, In Party, Out Party, Capacity Contract Type, Capacity Agreement Identification and Measurement Unit contain the identical values of the time series in the referenced document.

## 8.5 Rules governing the imposed time series class

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 parties time series 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 cutoff. 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).

### 8.5.1 Imposed Time Series Identification

| ACTION                         | DESCRIPTION   |
|--------------------------------|---|
| <b>Definition of element</b>   | The identification of the imposed time series assigned by the system operator.                  |
| <b>Description</b>             | The identification of the time series imposed by the system operator on the market participant. |
| <b>Size</b>                    | The maximum size of this information is 35 alphanumeric characters.                             |
| <b>Applicability</b>           | This information is mandatory.  |
| <b>Dependence requirements</b> | None.   |

### 8.5.2 Imposed Time Series Version

| ACTION                         | DESCRIPTION   |
|--------------------------------|---|
| <b>Definition of element</b>   | The imposed time series version assigned by the system operator.                      |
| <b>Description</b>             | The version of the imposed time series. This value s in general should be equal to 1. |
| <b>Size</b>                    | The maximum size of an imposed time series version is 3 numeric characters.           |
| <b>Applicability</b>           | This information is mandatory.  |
| <b>Dependence requirements</b> | This data element is always associated with the imposed time series identification.   |

### 8.5.3 Business type

| ACTION                  | DESCRIPTION  |
|-------------------------|--|
| Definition of element   | The trading nature of the time series imposed.   |
| Description             | The nature of the time series that the system operator is imposing. <b>Refer to ETSO code list document for the valid list of codes.</b> |
| Size                    | The maximum length of the time series type is 3 alphanumeric characters.   |
| Applicability           | This information is mandatory.   |
| Dependence requirements | None.  |

### 8.5.4 Product

| ACTION                  | DESCRIPTION   |
|-------------------------|---|
| Definition of element   | The product of the imposed time series .  |
| Description             | This identifies the product for which the system operator is imposing the time series. <b>Refer to ETSO code list document for the valid list of codes.</b> |
| Size                    | The maximum length of this information is 13 numeric characters.  |
| Applicability           | This information is mandatory.  |
| Dependence requirements | None.   |

### 8.5.5 Object aggregation

| ACTION                  | DESCRIPTION   |
|-------------------------|---|
| Definition of element   | The aggregation of the imposed time series.   |
| Description             | The aggregation of the time series imposed by the system operator. <b>Refer to ETSO code list document for the valid list of codes.</b> |
| Size                    | The maximum length of the time series type is 3 alphanumeric characters.  |
| Applicability           | This information is mandatory.  |
| Dependence requirements | None.   |



### 8.5.6 In Area – Coding Scheme

| ACTION                         | DESCRIPTION  |
|--------------------------------|--|
| <b>Definition of element</b>   | The in area of the imposed time series.  |
| <b>Description</b>             | 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.  |
| <b>Size</b>                    | <p>The maximum length of this information is 18 alphanumeric characters.</p> <p>The maximum length of the coding scheme code is 3 alphanumeric characters.</p> <p>The codification scheme used for the coded identification is indicated by the coding scheme attribute. It is a 3 character alphanumeric code. <b>Refer to ETSO code list document for the valid list of codes.</b></p> |
| <b>Applicability</b>           | This information is dependent.   |
| <b>Dependence requirements</b> | Refer to the matrix in 5.2.1 for dependency requirements.  |

### 8.5.7 Out Area – Coding Scheme

| ACTION                         | DESCRIPTION  |
|--------------------------------|--|
| <b>Definition of element</b>   | The out area of the imposed time series.   |
| <b>Description</b>             | 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.   |
| <b>Size</b>                    | <p>The maximum length of this information is 18 alphanumeric characters.</p> <p>The maximum length of the coding scheme code is 3 alphanumeric characters.</p> <p>The codification scheme used for the coded identification is indicated by the coding scheme attribute. It is a 3 character alphanumeric code. <b>Refer to ETSO code list document for the valid list of codes.</b></p> |
| <b>Applicability</b>           | This information is dependent.   |
| <b>Dependence requirements</b> | Refer to the matrix in 5.2.1 for dependency requirements.  |

### 8.5.8 Metering Point Identification – Coding Scheme

| ACTION                         | DESCRIPTION  |
|--------------------------------|--|
| <b>Definition of element</b>   | The identification of the metering point of the imposed time series .  |
| <b>Description</b>             | <p>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.</p> <p>The codification scheme used for the coded identification is indicated by the coding scheme attribute. It is a 3 character alphanumeric code. <b>Refer to ETSO code list document for the valid list of codes.</b></p> |
| <b>Size</b>                    | <p>The maximum length of this information is 35 alphanumeric characters. The maximum length of the sub value, if used, is 35 alphanumeric characters.</p> <p>The maximum length of the coding scheme code is 3 alphanumeric characters.</p>  |
| <b>Applicability</b>           | This information is dependent.   |
| <b>Dependence requirements</b> | Refer to the matrix in 5.2.1 for dependency requirements.  |

### 8.5.9 In party – Coding Scheme

| ACTION                         | DESCRIPTION  |
|--------------------------------|--|
| <b>Definition of element</b>   | The identification of the in party of the imposed time series.   |
| <b>Description</b>             | 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.   |
| <b>Size</b>                    | <p>The maximum length of this information is 16 alphanumeric characters.</p> <p>The maximum length of the coding scheme code is 3 alphanumeric characters.</p> <p>The codification scheme used for the coded identification is indicated by the coding scheme attribute. It is a 3 character alphanumeric code. <b>Refer to ETSO code list document for the valid list of codes.</b></p> |
| <b>Applicability</b>           | This information is dependent.   |
| <b>Dependence requirements</b> | Refer to the matrix in 5.2.1 for dependency requirements.  |

#### 8.5.10 Out party – Coding Scheme

| ACTION                         | DESCRIPTION  |
|--------------------------------|--|
| <b>Definition of element</b>   | The identification of the out party of the imposed time series.  |
| <b>Description</b>             | 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.  |
| <b>Size</b>                    | <p>The maximum length of this information is 16 alphanumeric characters.</p> <p>The maximum length of the coding scheme code is 3 alphanumeric characters.</p> <p>The codification scheme used for the coded identification is indicated by the coding scheme attribute. It is a 3 character alphanumeric code. <b>Refer to ETSO code list document for the valid list of codes.</b></p> |
| <b>Applicability</b>           | This information is dependent.   |
| <b>Dependence requirements</b> | Refer to the matrix in 5.2.1 for dependency requirements.  |

#### 8.5.11 Capacity Contract Type

| ACTION                         | DESCRIPTION  |
|--------------------------------|--|
| <b>Definition of element</b>   | The capacity contract type of the imposed time series.   |
| <b>Description</b>             | This information defines the conditions under which the capacity was allocated and handled. It corresponds to the information that has been imposed by the system operator. <b>Refer to ETSO code list document for the valid list of codes.</b> |
| <b>Size</b>                    | The maximum length of this information is 3 alphanumeric characters.   |
| <b>Applicability</b>           | This information is dependent.   |
| <b>Dependence requirements</b> | Refer to the matrix in 5.2.1 for dependency requirements.  |

#### 8.5.12 Capacity agreement identification.

| ACTION                         | DESCRIPTION  |
|--------------------------------|--|
| <b>Definition of element</b>   | The capacity agreement identification of the imposed time series in error.   |
| <b>Description</b>             | This information identifies the 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. |
| <b>Size</b>                    | The maximum length of this information is 35 alphanumeric characters.  |
| <b>Applicability</b>           | This information is dependent.   |
| <b>Dependence requirements</b> | Refer to the matrix in 5.2.1 for dependency requirements.  |

#### 8.5.13 Measurement Unit

| ACTION                         | DESCRIPTION   |
|--------------------------------|---|
| <b>Definition of element</b>   | The unit of measure that is applied to the quantities in which the imposed time series is expressed.  |
| <b>Description</b>             | The unit if measurement used for the quantities expressed within the time series that has been imposed by the system operator. <b>Refer to ETSO code list document for the valid list of codes.</b> |
| <b>Size</b>                    | The maximum length of this information is 3 alphanumeric characters.  |
| <b>Applicability</b>           | This information is mandatory.  |
| <b>Dependence requirements</b> | None.   |

#### 8.6 Rules governing the Period class

The Period class Time Interval and Resolution attributes must be the same as those in the original document and must be sent in the confirmation report for all time series that have been accepted or accepted with modification. In the case of imposed time series the resolution must be the same as the one for the market participant's time series.

#### 8.7 Rules governing the Interval class

All the interval quantities for the time series that has been accepted or those imposed by the system operator must be sent in the confirmation report

### 8.7.1 Pos

| <b>ACTION</b>                  | <b>DESCRIPTION</b>  |
|--------------------------------|---|
| <b>Definition of element</b>   | The relative position of a period within the time interval defined in the Period class.   |
| <b>Description</b>             | The position that has been accepted or imposed.   |
| <b>Size</b>                    | The relative position must be expressed as a numeric integer value beginning with 1. All leading zeros must be suppressed. The maximum number of characters is 6. |
| <b>Applicability</b>           | This information is mandatory.  |
| <b>Dependence requirements</b> | None.   |

### 8.7.2 Qty

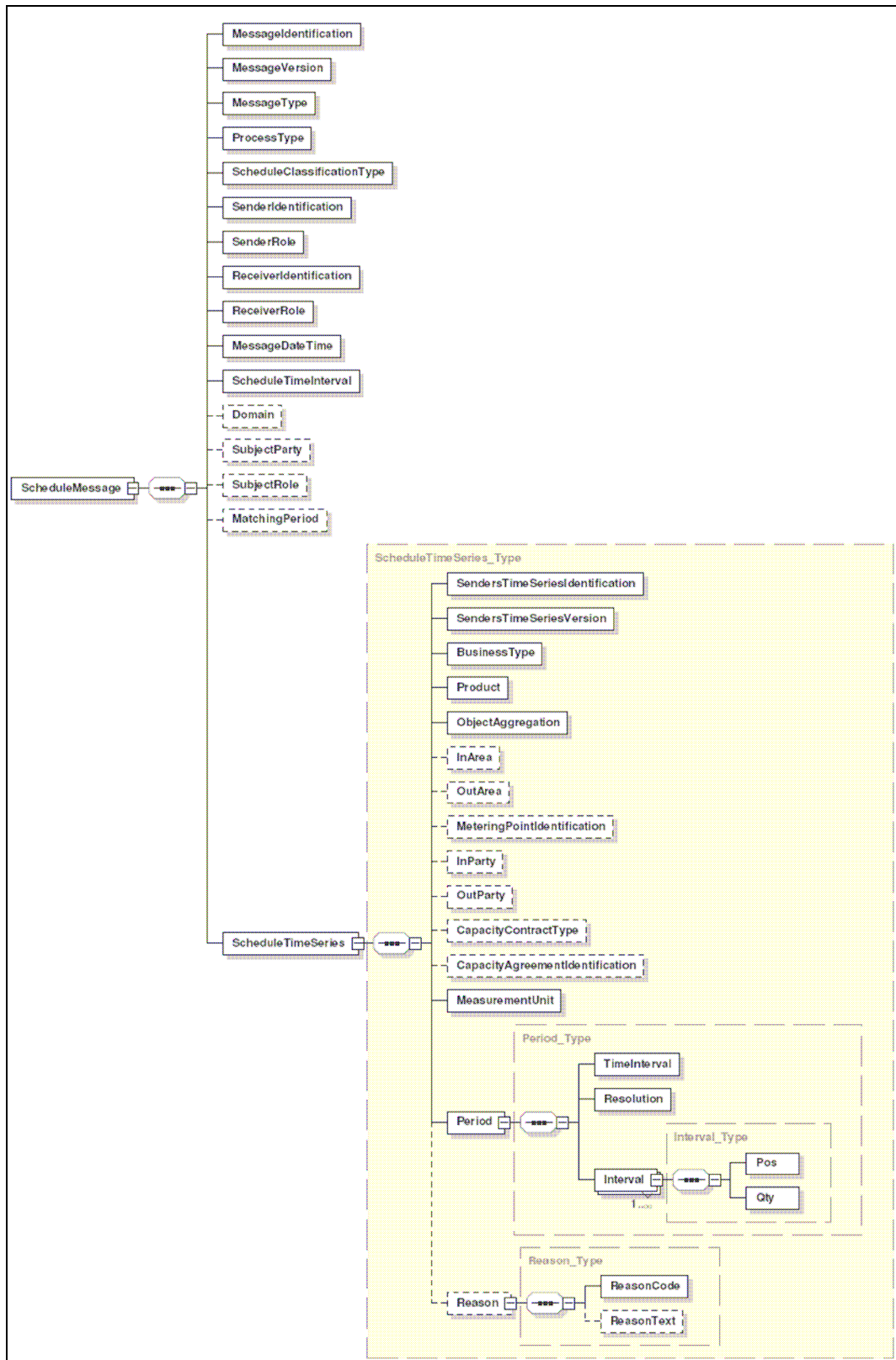
| <b>ACTION</b>                  | <b>DESCRIPTION</b>  |
|--------------------------------|---|
| <b>Definition of element</b>   | The quantity of the product scheduled for the position within the time interval in question.  |
| <b>Description</b>             | The quantity that has been accepted or imposed.   |
| <b>Size</b>                    | The maximum length of this information is 17 numeric characters (decimal point and sign, if used, included).<br>The number of decimal places depends on local market rules. |
| <b>Applicability</b>           | This information is mandatory.  |
| <b>Dependence requirements</b> | None.   |

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## 9. XML DEFINITIONS

### 9.1 Schedule Document

#### 9.1.1 Schedule Document - Schema Structure



## 9.1.2 Schedule Document – Schema Definition

```
<?xml version="1.0" encoding="UTF-8"?>
<xsd:schema xmlns:ecc="etso-core-cmpts.xsd" xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  elementFormDefault="qualified" attributeFormDefault="unqualified" ecc:VersionRelease="4.0">
  <xsd:import namespace="etso-core-cmpts.xsd" schemaLocation="../core/etso-core-cmpts.xsd"/>
  <!--
    ETSO Document Automatically generated from a UML class diagram using XML.
    Generation tool version 1.7
  -->
  <xsd:element name="ScheduleMessage">
    <xsd:complexType>
      <xsd:annotation>
        <xsd:documentation/>
      </xsd:annotation>
      <xsd:sequence>
        <xsd:element name="MessageIdentification" type="ecc:IdentificationType">
          <xsd:annotation>
            <xsd:documentation/>
          </xsd:annotation>
        </xsd:element>
        <xsd:element name="MessageVersion" type="ecc:VersionType">
          <xsd:annotation>
            <xsd:documentation/>
          </xsd:annotation>
        </xsd:element>
        <xsd:element name="MessageType" type="ecc:MessageType">
          <xsd:annotation>
            <xsd:documentation/>
          </xsd:annotation>
        </xsd:element>
        <xsd:element name="ProcessType" type="ecc:ProcessType">
          <xsd:annotation>
            <xsd:documentation/>
          </xsd:annotation>
        </xsd:element>
        <xsd:element name="ScheduleClassificationType" type="ecc:ClassificationType">
          <xsd:annotation>
            <xsd:documentation/>
          </xsd:annotation>
        </xsd:element>
        <xsd:element name="SenderIdIdentification" type="ecc:PartyType">
          <xsd:annotation>
            <xsd:documentation/>
          </xsd:annotation>
        </xsd:element>
        <xsd:element name="SenderRole" type="ecc:RoleType">
          <xsd:annotation>
            <xsd:documentation/>
          </xsd:annotation>
        </xsd:element>
        <xsd:element name="ReceiverIdentification" type="ecc:PartyType">
          <xsd:annotation>
            <xsd:documentation/>
          </xsd:annotation>
        </xsd:element>
        <xsd:element name="ReceiverRole" type="ecc:RoleType">
          <xsd:annotation>
            <xsd:documentation/>
          </xsd:annotation>
        </xsd:element>
        <xsd:element name="MessageDateTime" type="ecc:MessageDateTimeType">
          <xsd:annotation>
            <xsd:documentation/>
          </xsd:annotation>
        </xsd:element>
        <xsd:element name="ScheduleTimeInterval" type="ecc:TimeIntervalType">
          <xsd:annotation>
            <xsd:documentation/>
          </xsd:annotation>
        </xsd:element>
        <xsd:element name="Domain" type="ecc:AreaType" minOccurs="0">

```



```

        <xsd:annotation>
          <xsd:documentation/>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="SubjectParty" type="ecc:PartyType" minOccurs="0">
        <xsd:annotation>
          <xsd:documentation/>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="SubjectRole" type="ecc:RoleType" minOccurs="0">
        <xsd:annotation>
          <xsd:documentation/>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="MatchingPeriod" type="ecc:TimeIntervalType" minOccurs="0">
        <xsd:annotation>
          <xsd:documentation/>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="ScheduleTimeSeries" type="ScheduleTimeSeries_Type"/>
    </xsd:sequence>
    <xsd:attribute name="DtdVersion" type="xsd:string" use="required"/>
    <xsd:attribute name="DtdRelease" type="xsd:string" use="required"/>
  </xsd:complexType>
</xsd:element>
<xsd:complexType name="ScheduleTimeSeries_Type">
  <xsd:annotation>
    <xsd:documentation/>
  </xsd:annotation>
  <xsd:sequence>
    <xsd:element name="SendersTimeSeriesIdentification" type="ecc:IdentificationType">
      <xsd:annotation>
        <xsd:documentation/>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="SendersTimeSeriesVersion" type="ecc:VersionType">
      <xsd:annotation>
        <xsd:documentation/>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="BusinessType" type="ecc:BusinessType">
      <xsd:annotation>
        <xsd:documentation/>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="Product" type="ecc:EnergyProductType">
      <xsd:annotation>
        <xsd:documentation/>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="ObjectAggregation" type="ecc:ObjectAggregationType">
      <xsd:annotation>
        <xsd:documentation/>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="InArea" type="ecc:AreaType" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation/>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="OutArea" type="ecc:AreaType" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation/>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="MeteringPointIdentification" type="ecc:MeteringPointType" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation/>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="InParty" type="ecc:PartyType" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation/>
      </xsd:annotation>
    </xsd:element>
  </xsd:sequence>

```

```

        </xsd:annotation>
      </xsd:element>
      <xsd:element name="OutParty" type="ecc:PartyType" minOccurs="0">
        <xsd:annotation>
          <xsd:documentation/>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="CapacityContractType" type="ecc:ContractType" minOccurs="0">
        <xsd:annotation>
          <xsd:documentation/>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="CapacityAgreementIdentification" type="ecc:IdentificationType" minOccurs="0">
        <xsd:annotation>
          <xsd:documentation/>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="MeasurementUnit" type="ecc:UnitOfMeasureType">
        <xsd:annotation>
          <xsd:documentation/>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="Period" type="Period_Type"/>
      <xsd:element name="Reason" type="Reason_Type" minOccurs="0"/>
    </xsd:sequence>
  </xsd:complexType>
  <xsd:complexType name="Period_Type">
    <xsd:annotation>
      <xsd:documentation/>
    </xsd:annotation>
    <xsd:sequence>
      <xsd:element name="TimeInterval" type="ecc:TimeIntervalType">
        <xsd:annotation>
          <xsd:documentation/>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="Resolution" type="ecc:ResolutionType">
        <xsd:annotation>
          <xsd:documentation/>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="Interval" type="Interval_Type" maxOccurs="unbounded"/>
    </xsd:sequence>
  </xsd:complexType>
  <xsd:complexType name="Interval_Type">
    <xsd:annotation>
      <xsd:documentation/>
    </xsd:annotation>
    <xsd:sequence>
      <xsd:element name="Pos" type="ecc:PositionType">
        <xsd:annotation>
          <xsd:documentation/>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="Qty" type="ecc:QuantityType">
        <xsd:annotation>
          <xsd:documentation/>
        </xsd:annotation>
      </xsd:element>
    </xsd:sequence>
  </xsd:complexType>
  <xsd:complexType name="Reason_Type">
    <xsd:annotation>
      <xsd:documentation/>
    </xsd:annotation>
    <xsd:sequence>
      <xsd:element name="ReasonCode" type="ecc:ReasonCodeType">
        <xsd:annotation>
          <xsd:documentation/>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="ReasonText" type="ecc:ReasonTextType" minOccurs="0">
        <xsd:annotation>

```

```

        <xsd:documentation/>
      </xsd:annotation>
    </xsd:element>
  </xsd:sequence>
</xsd:complexType>
</xsd:schema>

```

### 9.1.3 Schedule document DTD

```

<?xml version="1.0" encoding="UTF-8"?>
<!-- ETSO Task Force 14 - DTD Version : 3 RELEASE : 0 -->
<!ELEMENT ScheduleMessage (MessageIdentification, MessageVersion, MessageType,
ProcessType, ScheduleClassificationType, SenderIdentification, SenderRole, ReceiverIdentification, ReceiverRole,
MessageDateTime, ScheduleTimeInterval, Domain?, SubjectParty?, SubjectRole?, MatchingPeriod?, ScheduleTimeSeries*)>
  <!ATTLIST ScheduleMessage DtdVersion CDATA #REQUIRED
    DtdRelease CDATA #REQUIRED
    <ELEMENT MessageIdentification EMPTY>
    <!ATTLIST MessageIdentification v CDATA #REQUIRED>
    <ELEMENT MessageVersion EMPTY>
    <!ATTLIST MessageVersion v CDATA #REQUIRED>
    <ELEMENT MessageType EMPTY>
    <!ATTLIST MessageType v CDATA #REQUIRED>
    <!-- See Message type valid codes and meanings in implementation guide -->
    <ELEMENT ProcessType EMPTY>
    <!ATTLIST ProcessType v CDATA #REQUIRED>
    <!-- See role meanings in implementation guide -->
    <ELEMENT ScheduleClassificationType EMPTY>
    <!ATTLIST ScheduleClassificationType v CDATA #REQUIRED>
    <!-- See role meanings in implementation guide -->
    <ELEMENT SenderIdentification EMPTY>
    <!ATTLIST SenderIdentification v CDATA #REQUIRED
      codingScheme CDATA #REQUIRED>
    <ELEMENT SenderRole EMPTY>
    <!ATTLIST SenderRole v CDATA #REQUIRED>
    <!-- See role meanings in implementation guide -->
    <ELEMENT ReceiverIdentification EMPTY>
    <!ATTLIST ReceiverIdentification v CDATA #REQUIRED
      codingScheme CDATA #REQUIRED>
    <ELEMENT ReceiverRole EMPTY>
    <!ATTLIST ReceiverRole v CDATA #REQUIRED>
    <!-- See role meanings in implementation guide -->
    <ELEMENT MessageDateTime EMPTY>
    <!ATTLIST MessageDateTime v CDATA #REQUIRED>
    <ELEMENT ScheduleTimeInterval EMPTY>
    <!ATTLIST ScheduleTimeInterval v CDATA #REQUIRED>
    <ELEMENT Domain EMPTY>
    <!ATTLIST Domain v CDATA #REQUIRED>
    <ELEMENT SubjectParty EMPTY>
    <!ATTLIST SubjectParty v CDATA #REQUIRED
      codingScheme CDATA #REQUIRED>
    <ELEMENT SubjectRole EMPTY>
    <!ATTLIST SubjectRole v CDATA #REQUIRED>
    <ELEMENT MatchingPeriod EMPTY>
    <!ATTLIST MatchingPeriod v CDATA #REQUIRED>
    <ELEMENT ScheduleTimeSeries (SendersTimeSeriesIdentification, SendersTimeSeriesVersion, BusinessType, Product,
ObjectAggregation, InArea?, OutArea?, MeteringPointIdentification?, InParty?, OutParty?, CapacityContractType?,
CapacityAgreementIdentification?, MeasurementUnit, Period, Reason?)>
    <ELEMENT SendersTimeSeriesIdentification EMPTY>
    <!ATTLIST SendersTimeSeriesIdentification v CDATA #REQUIRED>
    <ELEMENT SendersTimeSeriesVersion EMPTY>
    <!ATTLIST SendersTimeSeriesVersion v CDATA #REQUIRED>
    <ELEMENT BusinessType EMPTY>
    <!ATTLIST BusinessType v CDATA #REQUIRED>
    <!-- See Business type valid codes and meanings in implementation guide -->
    <ELEMENT Product EMPTY>
    <!ATTLIST Product v CDATA #REQUIRED>
    <!-- See product meanings in implementation guide -->
    <ELEMENT ObjectAggregation EMPTY>
    <!ATTLIST ObjectAggregation v CDATA #REQUIRED>
    <!-- See object aggregation valid codes and meanings in implementation guide -->
    <ELEMENT InArea EMPTY>
    <!ATTLIST InArea v CDATA #REQUIRED
      codingScheme CDATA #REQUIRED>

```

```

<!ELEMENT OutArea EMPTY>
<!ATTLIST OutArea v CDATA #REQUIRED
      codingScheme CDATA #REQUIRED>
<!ELEMENT MeteringPointIdentification EMPTY>
<!ATTLIST MeteringPointIdentification v CDATA #REQUIRED
      subValue CDATA #IMPLIED
      codingScheme CDATA #REQUIRED>
<!ELEMENT InParty EMPTY>
<!ATTLIST InParty v CDATA #REQUIRED
      codingScheme CDATA #REQUIRED>
<!ELEMENT OutParty EMPTY>
<!ATTLIST OutParty v CDATA #REQUIRED
      codingScheme CDATA #REQUIRED>
<!ELEMENT CapacityContractType EMPTY>
<!ATTLIST CapacityContractType v CDATA #REQUIRED>
<!-- See contract type meanings in implementation guide -->
<!ELEMENT CapacityAgreementIdentification EMPTY>
<!ATTLIST CapacityAgreementIdentification v CDATA #REQUIRED>
<!ELEMENT MeasurementUnit EMPTY>
<!ATTLIST MeasurementUnit v CDATA #REQUIRED>
<!-- See measurement unit meanings in implementation guide -->
<!ELEMENT Period (TimeInterval, Resolution, Interval+)>
<!ELEMENT TimeInterval EMPTY>
<!ATTLIST TimeInterval v CDATA #REQUIRED>
<!ELEMENT Resolution EMPTY>
<!ATTLIST Resolution v CDATA #REQUIRED>
<!ELEMENT Reason (ReasonCode, ReasonText*)>
<!ELEMENT ReasonCode EMPTY>
<!ATTLIST ReasonCode v CDATA #REQUIRED>
<!-- See reason code meanings in implementation guide -->
<!ELEMENT ReasonText EMPTY>
<!ATTLIST ReasonText v CDATA #REQUIRED>
<!ELEMENT Interval (Pos, Qty)>
<!ELEMENT Pos EMPTY>
<!ATTLIST Pos v CDATA #REQUIRED>
<!ELEMENT Qty EMPTY>
<!ATTLIST Qty v CDATA #REQUIRED>

```

#### 9.1.4 Schedule document - Data instance

```

<?xml version="1.0" encoding="UTF-8"?>
<?xml-stylesheet type="text/xsl" href="schedule-document.xsl"?>
<ScheduleMessage DtdVersion="3" DtdRelease="0">
  <MessageIdentification v="1234"/>
  <MessageVersion v="1"/>
  <MessageType v="A01"/>
  <ProcessType v="A01"/>
  <ScheduleClassificationType v="A01"/>
  <SenderIdentification v="5790000432752" codingScheme="A10"/>
  <SenderRole v="A01"/>
  <ReceiverIdentification v="10X000000000RTEM" codingScheme="A01"/>
  <ReceiverRole v="A04"/>
  <MessageDateTime v="2001-06-02T09:00:00Z"/>
  <ScheduleTimeInterval v="2001-06-02T22:00Z/2001-06-02T23:00Z"/>
  <Domain v="12Y000002347651H"/>
  <SubjectParty v="11X000000100741R"/>
  <SubjectRole v="A01"/>
  <MatchingPeriod v="2001-06-02T22:00Z/2001-06-02T23:00Z"/>
  <ScheduleTimeSeries>
    <SendersTimeSeriesIdentification v="TS0001"/>
    <SendersTimeSeriesVersion v="1"/>
    <BusinessType v="A03"/>
    <Product v="8716867000016"/>
    <ObjectAggregation v="A01"/>
    <InArea v="12Y000002347651H" codingScheme="A01"/>
    <OutArea v="12YRWENET-----Q" codingScheme="A01"/>
    <InParty v="11X000000100741R" codingScheme="A01"/>
    <OutParty v="11X000000340533X" codingScheme="A01"/>
    <CapacityContractType v="A01"/>
    <CapacityAgreementIdentification v="R567">
      <MeasurementUnit v="MAW"/>
      <Period>
        <TimeInterval v="2001-06-02T22:00Z/2001-06-02T23:00Z"/>

```

```

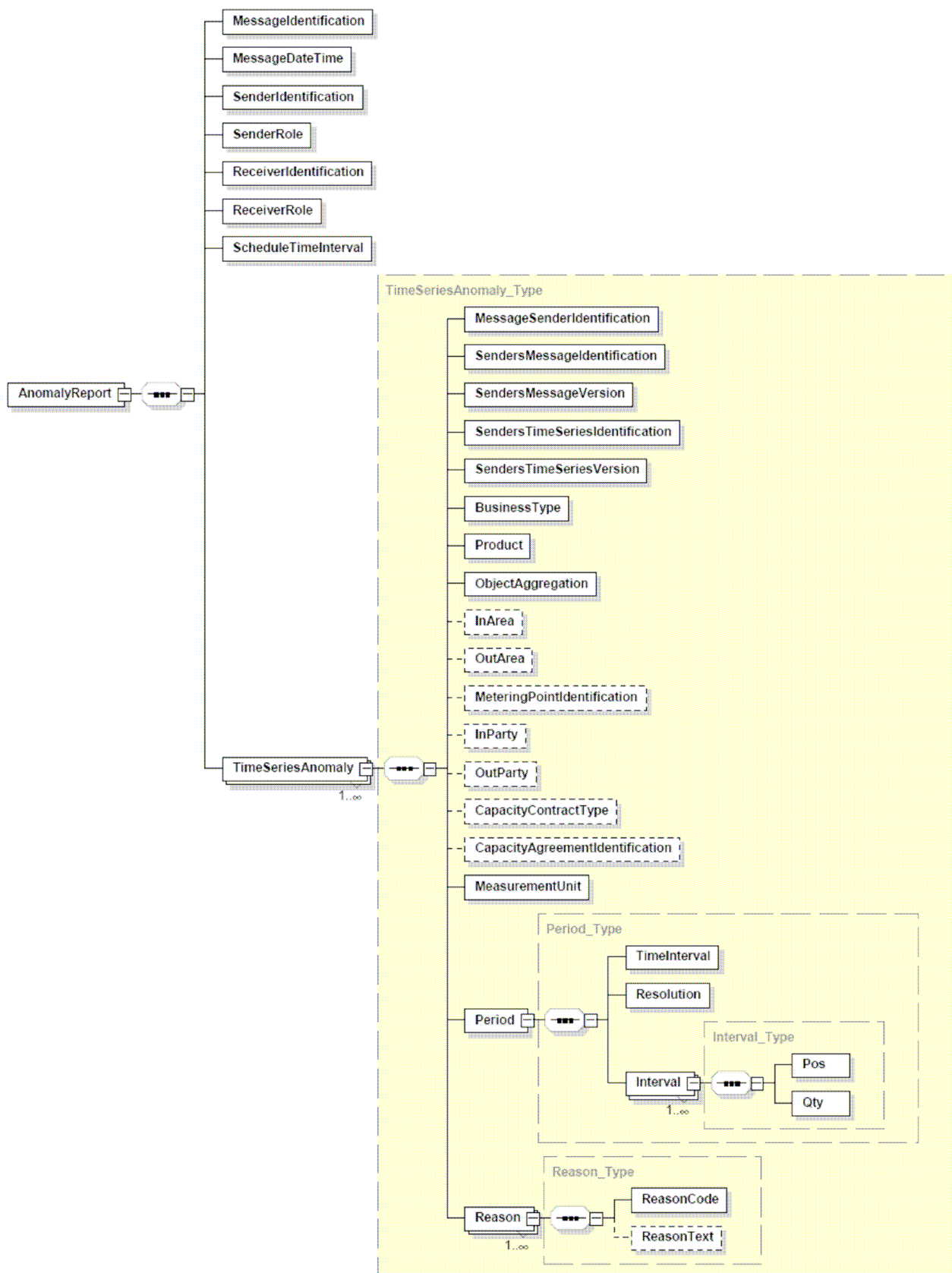
        <Resolution v="PT15M"/>
    <Interval>
        <Pos v="1"/>
        <Qty v="45"/>
    </Interval>
    <Interval>
        <Pos v="2"/>
        <Qty v="40"/>
    </Interval>
    <Interval>
        <Pos v="3"/>
        <Qty v="45"/>
    </Interval>
    <Interval>
        <Pos v="4"/>
        <Qty v="45"/>
    </Interval>
</Period>
</ScheduleTimeSeries>
</ScheduleMessage>

```

**Note:** This example, for the sake of space, is only for the duration of one hour.

## 9.2 Anomaly Report

### 9.2.1 Anomaly Report – Schema Structure



## 9.2.2 Anomaly Report – Schema Definition

```
<?xml version="1.0" encoding="UTF-8"?>
<xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:ecc="etso-core-cmpts.xsd"
  elementFormDefault="qualified" attributeFormDefault="unqualified" ecc:VersionRelease="4.0">
  <xsd:import namespace="etso-core-cmpts.xsd" schemaLocation="../../core/etso-core-cmpts.xsd"/>
  <!--
    ETSO Document Automatically generated from a UML class diagram using XML.
    Generation tool version 1.7
  -->
  <xsd:element name="AnomalyReport">
    <xsd:complexType>
      <xsd:annotation>
        <xsd:documentation/>
      </xsd:annotation>
      <xsd:sequence>
        <xsd:element name="MessageIdentification" type="ecc:IdentificationType">
          <xsd:annotation>
            <xsd:documentation/>
          </xsd:annotation>
        </xsd:element>
        <xsd:element name="MessageDateTime" type="ecc:MessageDateTimeType">
          <xsd:annotation>
            <xsd:documentation/>
          </xsd:annotation>
        </xsd:element>
        <xsd:element name="SenderIdIdentification" type="ecc:PartyType">
          <xsd:annotation>
            <xsd:documentation/>
          </xsd:annotation>
        </xsd:element>
        <xsd:element name="SenderRole" type="ecc:RoleType">
          <xsd:annotation>
            <xsd:documentation/>
          </xsd:annotation>
        </xsd:element>
        <xsd:element name="ReceiverIdentification" type="ecc:PartyType">
          <xsd:annotation>
            <xsd:documentation/>
          </xsd:annotation>
        </xsd:element>
        <xsd:element name="ReceiverRole" type="ecc:RoleType">
          <xsd:annotation>
            <xsd:documentation/>
          </xsd:annotation>
        </xsd:element>
        <xsd:element name="ScheduleTimeInterval" type="ecc:TimeIntervalType">
          <xsd:annotation>
            <xsd:documentation/>
          </xsd:annotation>
        </xsd:element>
        <xsd:element name="TimeSeriesAnomaly" type="TimeSeriesAnomaly_Type" maxOccurs="unbounded"/>
      </xsd:sequence>
      <xsd:attribute name="DtdVersion" type="xsd:string" use="required"/>
      <xsd:attribute name="DtdRelease" type="xsd:string" use="required"/>
    </xsd:complexType>
  </xsd:element>
  <xsd:complexType name="TimeSeriesAnomaly_Type">
    <xsd:annotation>
      <xsd:documentation/>
    </xsd:annotation>
    <xsd:sequence>
      <xsd:element name="MessageSenderIdIdentification" type="ecc:IdentificationType">
        <xsd:annotation>
          <xsd:documentation/>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="SendersMessageIdentification" type="ecc:IdentificationType">
        <xsd:annotation>
          <xsd:documentation/>
        </xsd:annotation>
      </xsd:element>
    </xsd:sequence>
  </xsd:complexType>
```



```

<xsd:element name="SendersMessageVersion" type="ecc:VersionType">
  <xsd:annotation>
    <xsd:documentation/>
  </xsd:annotation>
</xsd:element>
<xsd:element name="SendersTimeSeriesIdentification" type="ecc:IdentificationType">
  <xsd:annotation>
    <xsd:documentation/>
  </xsd:annotation>
</xsd:element>
<xsd:element name="SendersTimeSeriesVersion" type="ecc:VersionType">
  <xsd:annotation>
    <xsd:documentation/>
  </xsd:annotation>
</xsd:element>
<xsd:element name="BusinessType" type="ecc:BusinessType">
  <xsd:annotation>
    <xsd:documentation/>
  </xsd:annotation>
</xsd:element>
<xsd:element name="Product" type="ecc:EnergyProductType">
  <xsd:annotation>
    <xsd:documentation/>
  </xsd:annotation>
</xsd:element>
<xsd:element name="ObjectAggregation" type="ecc:ObjectAggregationType">
  <xsd:annotation>
    <xsd:documentation/>
  </xsd:annotation>
</xsd:element>
<xsd:element name="InArea" type="ecc:AreaType" minOccurs="0">
  <xsd:annotation>
    <xsd:documentation/>
  </xsd:annotation>
</xsd:element>
<xsd:element name="OutArea" type="ecc:AreaType" minOccurs="0">
  <xsd:annotation>
    <xsd:documentation/>
  </xsd:annotation>
</xsd:element>
<xsd:element name="MeteringPointIdentification" type="ecc:MeteringPointType" minOccurs="0">
  <xsd:annotation>
    <xsd:documentation/>
  </xsd:annotation>
</xsd:element>
<xsd:element name="InParty" type="ecc:PartyType" minOccurs="0">
  <xsd:annotation>
    <xsd:documentation/>
  </xsd:annotation>
</xsd:element>
<xsd:element name="OutParty" type="ecc:PartyType" minOccurs="0">
  <xsd:annotation>
    <xsd:documentation/>
  </xsd:annotation>
</xsd:element>
<xsd:element name="CapacityContractType" type="ecc:ContractType" minOccurs="0">
  <xsd:annotation>
    <xsd:documentation/>
  </xsd:annotation>
</xsd:element>
<xsd:element name="CapacityAgreementIdentification" type="ecc:IdentificationType" minOccurs="0">
  <xsd:annotation>
    <xsd:documentation/>
  </xsd:annotation>
</xsd:element>
<xsd:element name="MeasurementUnit" type="ecc:UnitOfMeasureType">
  <xsd:annotation>
    <xsd:documentation/>
  </xsd:annotation>
</xsd:element>
<xsd:element name="Period" type="Period_Type"/>
<xsd:element name="Reason" type="Reason_Type" maxOccurs="unbounded"/>
</xsd:sequence>

```



```

</xsd:complexType>
<xsd:complexType name="Period_Type">
  <xsd:annotation>
    <xsd:documentation/>
  </xsd:annotation>
  <xsd:sequence>
    <xsd:element name="TimeInterval" type="ecc:TimeIntervalType">
      <xsd:annotation>
        <xsd:documentation/>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="Resolution" type="ecc:ResolutionType">
      <xsd:annotation>
        <xsd:documentation/>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="Interval" type="Interval_Type" maxOccurs="unbounded"/>
  </xsd:sequence>
</xsd:complexType>
<xsd:complexType name="Interval_Type">
  <xsd:annotation>
    <xsd:documentation/>
  </xsd:annotation>
  <xsd:sequence>
    <xsd:element name="Pos" type="ecc:PositionType">
      <xsd:annotation>
        <xsd:documentation/>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="Qty" type="ecc:QuantityType">
      <xsd:annotation>
        <xsd:documentation/>
      </xsd:annotation>
    </xsd:element>
  </xsd:sequence>
</xsd:complexType>
<xsd:complexType name="Reason_Type">
  <xsd:annotation>
    <xsd:documentation/>
  </xsd:annotation>
  <xsd:sequence>
    <xsd:element name="ReasonCode" type="ecc:ReasonCodeType">
      <xsd:annotation>
        <xsd:documentation/>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="ReasonText" type="ecc:ReasonTextType" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation/>
      </xsd:annotation>
    </xsd:element>
  </xsd:sequence>
</xsd:complexType>
</xsd:schema>

```

### 9.2.3 Anomaly Report – DTD

```

<?xml version="1.0" encoding="UTF-8"?>
<!-- DTD generated by XMLSPY v2004 rel. 3 U (http://www.xmlspy.com)-->
<!ELEMENT AnomalyReport (MessageIdentification, MessageDateTime, SenderIdentification, SenderRole,
ReceiverIdentification, ReceiverRole, ScheduleTimeInterval, TimeSeriesAnomaly+)>
<!-- ATTLIST AnomalyReport
  DtdVersion CDATA #REQUIRED
  DtdRelease CDATA #REQUIRED>
<!-- ELEMENT MessageIdentification EMPTY>
<!-- ATTLIST MessageIdentification
  v CDATA #REQUIRED>
<!-- ELEMENT MessageDateTime EMPTY>
<!-- ATTLIST MessageDateTime
  v CDATA #REQUIRED>
<!-- ELEMENT SenderIdentification EMPTY>
<!-- ATTLIST SenderIdentification
  v CDATA #REQUIRED>

```

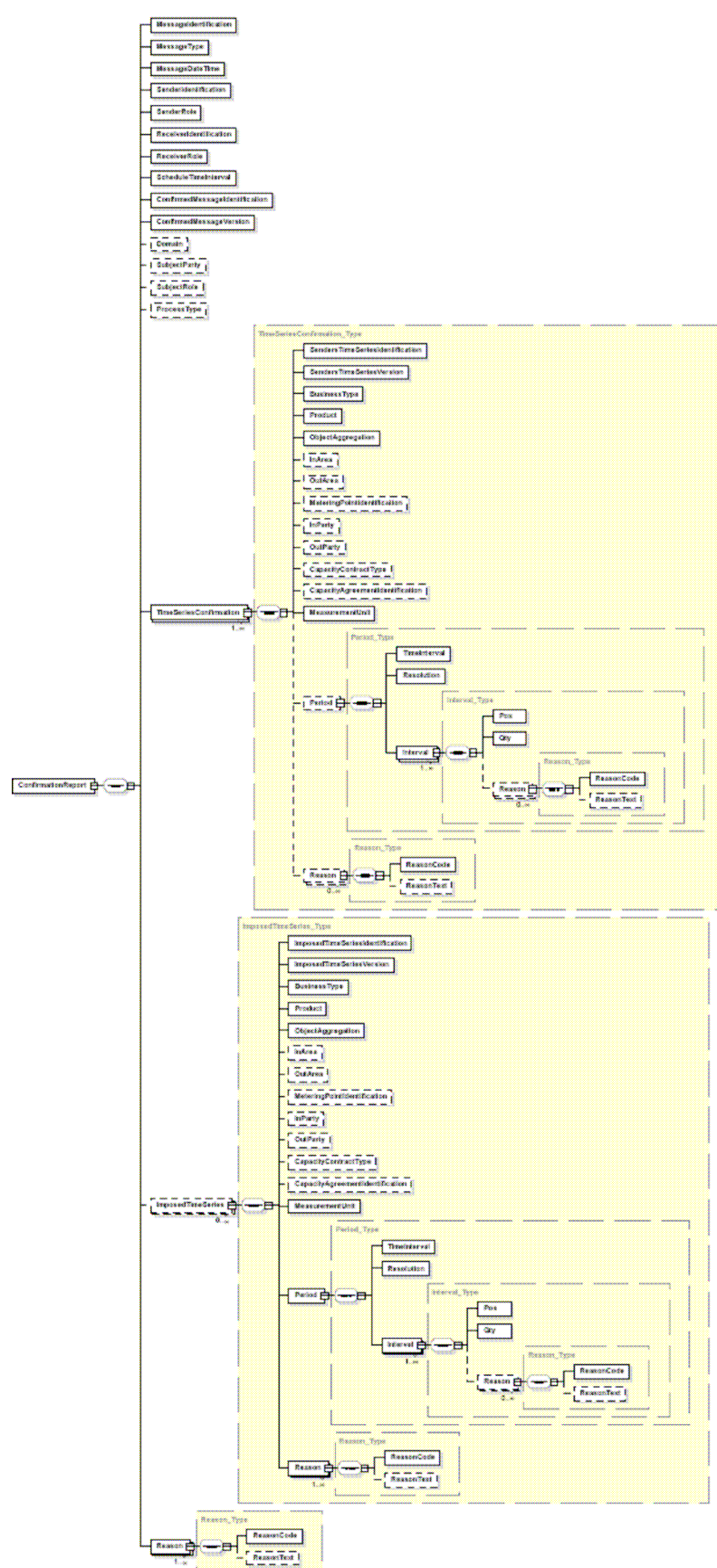


```
<!--ELEMENT MeasurementUnit EMPTY>
<!--ATTLIST MeasurementUnit
    v NMTOKEN #REQUIRED>
<!--ELEMENT Period (TimeInterval, Resolution, Interval+)>
<!--ELEMENT Reason (ReasonCode, ReasonText?)>
<!--ELEMENT TimeInterval EMPTY>
<!--v:
    ISO 8601 time intervals are always expressed in the form
    yyyy-mm-ddThh:mmZ/yyyy-mm-ddThh:mmZ
    Note: The minimum XML form of dateTime is yyyy-mm-ddThh:mm:ssZ
    -->
<!--ATTLIST TimeInterval
    v CDATA #REQUIRED>
<!--ELEMENT Resolution EMPTY>
<!--ATTLIST Resolution
    v CDATA #REQUIRED>
<!--ELEMENT Interval (Pos, Qty)>
<!--ELEMENT ReasonCode EMPTY>
<!--ATTLIST ReasonCode
    v NMTOKEN #REQUIRED>
<!--ELEMENT ReasonText EMPTY>
<!--ATTLIST ReasonText
    v CDATA #REQUIRED>
<!--ELEMENT Pos EMPTY>
<!--ATTLIST Pos
    v CDATA #REQUIRED>
<!--ELEMENT Qty EMPTY>
<!--ATTLIST Qty
    v CDATA #REQUIRED>
```

```
        </Interval>
        <Interval>
            <Pos v="4"/>
            <Qty v="45"/>
        </Interval>
    </Period>
    <Reason>
        <ReasonCode v="A28"/>
    </Reason>
</TimeSeriesAnomaly>
</AnomalyReport>
```

## 9.3 Confirmation report

### 9.3.1 Confirmation report - Schema Structure



### 9.3.2 Confirmation report - Schema Definition

```
<?xml version="1.0" encoding="UTF-8"?>
<xsd:schema xmlns:ecc="etso-core-cmpts.xsd" xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  elementFormDefault="qualified" attributeFormDefault="unqualified" ecc:VersionRelease="4.0">
  <xsd:import namespace="etso-core-cmpts.xsd" schemaLocation="../core/etso-core-cmpts.xsd"/>
  <!--
    ETSO Document Automatically generated from a UML class diagram using XML.
    Generation tool version 1.7
  -->
  <xsd:element name="ConfirmationReport">
    <xsd:complexType>
      <xsd:annotation>
        <xsd:documentation/>
      </xsd:annotation>
      <xsd:sequence>
        <xsd:element name="MessageIdentification" type="ecc:IdentificationType">
          <xsd:annotation>
            <xsd:documentation/>
          </xsd:annotation>
        </xsd:element>
        <xsd:element name="MessageType" type="ecc:MessageType">
          <xsd:annotation>
            <xsd:documentation/>
          </xsd:annotation>
        </xsd:element>
        <xsd:element name="MessageDateTime" type="ecc:MessageDateTimeType">
          <xsd:annotation>
            <xsd:documentation/>
          </xsd:annotation>
        </xsd:element>
        <xsd:element name="SenderIdentification" type="ecc:PartyType">
          <xsd:annotation>
            <xsd:documentation/>
          </xsd:annotation>
        </xsd:element>
        <xsd:element name="SenderRole" type="ecc:RoleType">
          <xsd:annotation>
            <xsd:documentation/>
          </xsd:annotation>
        </xsd:element>
        <xsd:element name="ReceiverIdentification" type="ecc:PartyType">
          <xsd:annotation>
            <xsd:documentation/>
          </xsd:annotation>
        </xsd:element>
        <xsd:element name="ReceiverRole" type="ecc:RoleType">
          <xsd:annotation>
            <xsd:documentation/>
          </xsd:annotation>
        </xsd:element>
        <xsd:element name="ScheduleTimeInterval" type="ecc:TimeIntervalType">
          <xsd:annotation>
            <xsd:documentation/>
          </xsd:annotation>
        </xsd:element>
        <xsd:element name="ConfirmedMessageIdentification" type="ecc:IdentificationType">
          <xsd:annotation>
            <xsd:documentation/>
          </xsd:annotation>
        </xsd:element>
        <xsd:element name="ConfirmedMessageVersion" type="ecc:VersionType">
          <xsd:annotation>
            <xsd:documentation/>
          </xsd:annotation>
        </xsd:element>
        <xsd:element name="Domain" type="ecc:AreaType" minOccurs="0">
          <xsd:annotation>
            <xsd:documentation/>
          </xsd:annotation>
        </xsd:element>
        <xsd:element name="SubjectParty" type="ecc:PartyType" minOccurs="0">
          <xsd:annotation>
```

```

        <xsd:documentation/>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="SubjectRole" type="ecc:RoleType" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation/>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="ProcessType" type="ecc:ProcessType" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation/>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="TimeSeriesConfirmation" type="TimeSeriesConfirmation_Type"
maxOccurs="unbounded"/>
    <xsd:element name="ImposedTimeSeries" type="ImposedTimeSeries_Type" minOccurs="0"
maxOccurs="unbounded"/>
    <xsd:element name="Reason" type="Reason_Type" maxOccurs="unbounded"/>
  </xsd:sequence>
  <xsd:attribute name="DtdVersion" type="xsd:string" use="required"/>
  <xsd:attribute name="DtdRelease" type="xsd:string" use="required"/>
</xsd:complexType>
</xsd:element>
<xsd:complexType name="TimeSeriesConfirmation_Type">
  <xsd:annotation>
    <xsd:documentation/>
  </xsd:annotation>
  <xsd:sequence>
    <xsd:element name="SendersTimeSeriesIdentification" type="ecc:IdentificationType">
      <xsd:annotation>
        <xsd:documentation/>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="SendersTimeSeriesVersion" type="ecc:VersionType">
      <xsd:annotation>
        <xsd:documentation/>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="BusinessType" type="ecc:BusinessType">
      <xsd:annotation>
        <xsd:documentation/>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="Product" type="ecc:EnergyProductType">
      <xsd:annotation>
        <xsd:documentation/>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="ObjectAggregation" type="ecc:ObjectAggregationType">
      <xsd:annotation>
        <xsd:documentation/>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="InArea" type="ecc:AreaType" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation/>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="OutArea" type="ecc:AreaType" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation/>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="MeteringPointIdentification" type="ecc:MeteringPointType" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation/>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="InParty" type="ecc:PartyType" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation/>
      </xsd:annotation>
    </xsd:element>
  </xsd:sequence>
</xsd:complexType>

```

```

<xsd:element name="OutParty" type="ecc:PartyType" minOccurs="0">
  <xsd:annotation>
    <xsd:documentation/>
  </xsd:annotation>
</xsd:element>
<xsd:element name="CapacityContractType" type="ecc:ContractType" minOccurs="0">
  <xsd:annotation>
    <xsd:documentation/>
  </xsd:annotation>
</xsd:element>
<xsd:element name="CapacityAgreementIdentification" type="ecc:IdentificationType" minOccurs="0">
  <xsd:annotation>
    <xsd:documentation/>
  </xsd:annotation>
</xsd:element>
<xsd:element name="MeasurementUnit" type="ecc:UnitOfMeasureType">
  <xsd:annotation>
    <xsd:documentation/>
  </xsd:annotation>
</xsd:element>
<xsd:element name="Period" type="Period_Type" minOccurs="0"/>
<xsd:element name="Reason" type="Reason_Type" minOccurs="0" maxOccurs="unbounded"/>
</xsd:sequence>
</xsd:complexType>
<xsd:complexType name="Period_Type">
  <xsd:annotation>
    <xsd:documentation/>
  </xsd:annotation>
  <xsd:sequence>
    <xsd:element name="TimeInterval" type="ecc:TimeIntervalType">
      <xsd:annotation>
        <xsd:documentation/>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="Resolution" type="ecc:ResolutionType">
      <xsd:annotation>
        <xsd:documentation/>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="Interval" type="Interval_Type" maxOccurs="unbounded"/>
  </xsd:sequence>
</xsd:complexType>
<xsd:complexType name="Interval_Type">
  <xsd:annotation>
    <xsd:documentation/>
  </xsd:annotation>
  <xsd:sequence>
    <xsd:element name="Pos" type="ecc:PositionType">
      <xsd:annotation>
        <xsd:documentation/>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="Qty" type="ecc:QuantityType">
      <xsd:annotation>
        <xsd:documentation/>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="Reason" type="Reason_Type" minOccurs="0" maxOccurs="unbounded"/>
  </xsd:sequence>
</xsd:complexType>
<xsd:complexType name="Reason_Type">
  <xsd:annotation>
    <xsd:documentation/>
  </xsd:annotation>
  <xsd:sequence>
    <xsd:element name="ReasonCode" type="ecc:ReasonCodeType">
      <xsd:annotation>
        <xsd:documentation/>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="ReasonText" type="ecc:ReasonTextType" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation/>
      </xsd:annotation>
    </xsd:element>
  </xsd:sequence>
</xsd:complexType>

```



```

        </xsd:annotation>
      </xsd:element>
    </xsd:sequence>
  </xsd:complexType>
  <xsd:complexType name="ImposedTimeSeries_Type">
    <xsd:annotation>
      <xsd:documentation/>
    </xsd:annotation>
    <xsd:sequence>
      <xsd:element name="ImposedTimeSeriesIdentification" type="ecc:IdentificationType">
        <xsd:annotation>
          <xsd:documentation/>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="ImposedTimeSeriesVersion" type="ecc:VersionType">
        <xsd:annotation>
          <xsd:documentation/>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="BusinessType" type="ecc:BusinessType">
        <xsd:annotation>
          <xsd:documentation/>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="Product" type="ecc:EnergyProductType">
        <xsd:annotation>
          <xsd:documentation/>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="ObjectAggregation" type="ecc:ObjectAggregationType">
        <xsd:annotation>
          <xsd:documentation/>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="InArea" type="ecc:AreaType" minOccurs="0">
        <xsd:annotation>
          <xsd:documentation/>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="OutArea" type="ecc:AreaType" minOccurs="0">
        <xsd:annotation>
          <xsd:documentation/>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="MeteringPointIdentification" type="ecc:MeteringPointType" minOccurs="0">
        <xsd:annotation>
          <xsd:documentation/>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="InParty" type="ecc:PartyType" minOccurs="0">
        <xsd:annotation>
          <xsd:documentation/>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="OutParty" type="ecc:PartyType" minOccurs="0">
        <xsd:annotation>
          <xsd:documentation/>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="CapacityContractType" type="ecc:ContractType" minOccurs="0">
        <xsd:annotation>
          <xsd:documentation/>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="CapacityAgreementIdentification" type="ecc:IdentificationType" minOccurs="0">
        <xsd:annotation>
          <xsd:documentation/>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="MeasurementUnit" type="ecc:UnitOfMeasureType">
        <xsd:annotation>
          <xsd:documentation/>
        </xsd:annotation>
      </xsd:element>
    </xsd:sequence>
  </xsd:complexType>

```

```

        </xsd:element>
        <xsd:element name="Period" type="Period_Type"/>
        <xsd:element name="Reason" type="Reason_Type" maxOccurs="unbounded"/>
    </xsd:sequence>
</xsd:complexType>
</xsd:schema>

```

### 9.3.3 Confirmation report - DTD

```

<?xml version="1.0" encoding="UTF-8"?>
<!-- DTD generated by XMLSPY v2004 rel. 3 U (http://www.xmlspy.com)-->
<!ELEMENT ConfirmationReport (MessageIdentification, MessageType, MessageDateTime, SenderIdentification,
SenderRole, ReceiverIdentification, ReceiverRole, ScheduleTimeInterval, ConfirmedMessageIdentification,
ConfirmedMessageVersion, Domain?, SubjectParty?, SubjectRole?, ProcessType?, TimeSeriesConfirmation+,
ImposedTimeSeries*, Reason+)>
<!ATTLIST ConfirmationReport
    DtdVersion CDATA #REQUIRED
    DtdRelease CDATA #REQUIRED>
<!ELEMENT MessageIdentification EMPTY>
<!ATTLIST MessageIdentification
    v CDATA #REQUIRED>
<!ELEMENT MessageType EMPTY>
<!ATTLIST MessageType
    v NMTOKEN #REQUIRED>
<!ELEMENT MessageDateTime EMPTY>
<!ATTLIST MessageDateTime
    v CDATA #REQUIRED>
<!ELEMENT SenderIdentification EMPTY>
<!ATTLIST SenderIdentification
    v CDATA #REQUIRED
    codingScheme NMTOKEN #REQUIRED>
<!ELEMENT SenderRole EMPTY>
<!ATTLIST SenderRole
    v NMTOKEN #REQUIRED>
<!ELEMENT ReceiverIdentification EMPTY>
<!ATTLIST ReceiverIdentification
    v CDATA #REQUIRED
    codingScheme NMTOKEN #REQUIRED>
<!ELEMENT ReceiverRole EMPTY>
<!ATTLIST ReceiverRole
    v NMTOKEN #REQUIRED>
<!ELEMENT ScheduleTimeInterval EMPTY>
<!--V:
    ISO 8601 time intervals are always expressed in the form
    yyyy-mm-ddThh:mmZ/yyyy-mm-ddThh:mmZ
    Note: The minimum XML form of dateTime is yyyy-mm-ddThh:mm:ssZ
    -->
<!ATTLIST ScheduleTimeInterval
    v CDATA #REQUIRED>
<!ELEMENT ConfirmedMessageIdentification EMPTY>
<!ATTLIST ConfirmedMessageIdentification
    v CDATA #REQUIRED>
<!ELEMENT ConfirmedMessageVersion EMPTY>
<!ATTLIST ConfirmedMessageVersion
    v CDATA #REQUIRED>
<!ELEMENT Domain EMPTY>
<!ATTLIST Domain
    v CDATA #REQUIRED
    codingScheme NMTOKEN #REQUIRED>
<!ELEMENT SubjectParty EMPTY>
<!ATTLIST SubjectParty
    v CDATA #REQUIRED
    codingScheme NMTOKEN #REQUIRED>
<!ELEMENT SubjectRole EMPTY>
<!ATTLIST SubjectRole
    v NMTOKEN #REQUIRED>
<!ELEMENT ProcessType EMPTY>
<!ATTLIST ProcessType
    v NMTOKEN #REQUIRED>
<!ELEMENT TimeSeriesConfirmation (SendersTimeSeriesIdentification, SendersTimeSeriesVersion, BusinessType, Product,
ObjectAggregation, InArea?, OutArea?, MeteringPointIdentification?, InParty?, OutParty?, CapacityContractType?,
CapacityAgreementIdentification?, MeasurementUnit, Period?, Reason*)>

```

```

<!ELEMENT ImposedTimeSeries (ImposedTimeSeriesIdentification, ImposedTimeSeriesVersion, BusinessType, Product,
ObjectAggregation, InArea?, OutArea?, MeteringPointIdentification?, InParty?, OutParty?, CapacityContractType?,
CapacityAgreementIdentification?, MeasurementUnit, Period, Reason+)>
<!ELEMENT Reason (ReasonCode, ReasonText?)>
<!ELEMENT SendersTimeSeriesIdentification EMPTY>
<!ATTLIST SendersTimeSeriesIdentification
    v CDATA #REQUIRED>
<!ELEMENT SendersTimeSeriesVersion EMPTY>
<!ATTLIST SendersTimeSeriesVersion
    v CDATA #REQUIRED>
<!ELEMENT BusinessType EMPTY>
<!ATTLIST BusinessType
    v NMTOKEN #REQUIRED>
<!ELEMENT Product EMPTY>
<!ATTLIST Product
    v NMTOKEN #REQUIRED>
<!ELEMENT ObjectAggregation EMPTY>
<!ATTLIST ObjectAggregation
    v NMTOKEN #REQUIRED>
<!ELEMENT InArea EMPTY>
<!ATTLIST InArea
    v CDATA #REQUIRED
    codingScheme NMTOKEN #REQUIRED>
<!ELEMENT OutArea EMPTY>
<!ATTLIST OutArea
    v CDATA #REQUIRED
    codingScheme NMTOKEN #REQUIRED>
<!ELEMENT MeteringPointIdentification EMPTY>
<!ATTLIST MeteringPointIdentification
    v CDATA #REQUIRED
    codingScheme NMTOKEN #REQUIRED>
<!ELEMENT InParty EMPTY>
<!ATTLIST InParty
    v CDATA #REQUIRED
    codingScheme NMTOKEN #REQUIRED>
<!ELEMENT OutParty EMPTY>
<!ATTLIST OutParty
    v CDATA #REQUIRED
    codingScheme NMTOKEN #REQUIRED>
<!ELEMENT CapacityContractType EMPTY>
<!ATTLIST CapacityContractType
    v NMTOKEN #REQUIRED>
<!ELEMENT CapacityAgreementIdentification EMPTY>
<!ATTLIST CapacityAgreementIdentification
    v CDATA #REQUIRED>
<!ELEMENT MeasurementUnit EMPTY>
<!ATTLIST MeasurementUnit
    v NMTOKEN #REQUIRED>
<!ELEMENT Period (TimeInterval, Resolution, Interval+)>
<!ELEMENT ImposedTimeSeriesIdentification EMPTY>
<!ATTLIST ImposedTimeSeriesIdentification
    v CDATA #REQUIRED>
<!ELEMENT ImposedTimeSeriesVersion EMPTY>
<!ATTLIST ImposedTimeSeriesVersion
    v CDATA #REQUIRED>
<!ELEMENT ReasonCode EMPTY>
<!ATTLIST ReasonCode
    v NMTOKEN #REQUIRED>
<!ELEMENT ReasonText EMPTY>
<!ATTLIST ReasonText
    v CDATA #REQUIRED>
<!ELEMENT TimeInterval EMPTY>
<!--v:
    ISO 8601 time intervals are always expressed in the form
    yyyy-mm-ddThh:mmZ/yyyy-mm-ddThh:mmZ
    Note: The minimum XML form of dateTime is yyyy-mm-ddThh:mm:ssZ
    -->
<!ATTLIST TimeInterval
    v CDATA #REQUIRED>
<!ELEMENT Resolution EMPTY>
<!ATTLIST Resolution
    v CDATA #REQUIRED>
<!ELEMENT Interval (Pos, Qty, Reason*)>

```

```

<!ELEMENT Pos EMPTY>
<!ATTLIST Pos
  v CDATA #REQUIRED>
<!ELEMENT Qty EMPTY>
<!ATTLIST Qty
  v CDATA #REQUIRED>

```

### 9.3.4 Confirmation report - Data instance

```

<?xml version="1.0" encoding="UTF-8"?>
<?xml-stylesheet type="text/xsl" href="confirmation-report.xsl"?>
<ConfirmationReport DtdVersion="3" DtdRelease="0">
  <MessageIdentification v="zerotro"/>
  <MessageType v="A08"/>
  <MessageDateTime v="2001-06-02T09:00:00Z"/>
  <SenderIdentification v="5790000432752" codingScheme="A10"/>
  <SenderRole v="A01"/>
  <ReceiverIdentification v="10X000000000RTEM" codingScheme="A01"/>
  <ReceiverRole v="A01"/>
  <ScheduleTimeInterval v="2001-06-02T22:00Z/2001-06-02T23:00Z"/>
  <ConfirmedMessageIdentification v="1234"/>
  <ConfirmedMessageVersion v="1"/>
  <Domain v="12Y000002347651H"/>
  <Reason>
    <ReasonCode v="A07"/>
  </Reason>
  <TimeSeriesConfirmation>
    <SendersMessageIdentification v="1234"/>
    <SendersMessageVersion v="1"/>
    <SendersTimeSeriesIdentification v="TS0001"/>
    <SendersTimeSeriesVersion v="1"/>
    <BusinessType v="A03"/>
    <Product v="8716867000016"/>
    <ObjectAggregation v="A01"/>
    <InArea v="12Y000002347651H" codingScheme="A01"/>
    <OutArea v="12YRWENET-----Q" codingScheme="A01"/>
    <InParty v="11X000000100741R" codingScheme="A01"/>
    <OutParty v="11X000000340533X" codingScheme="A01"/>
    <CapacityContractType v="A01"/>
    <CapacityAgreementIdentification v="R567">
    <MeasurementUnit v="MAW"/>
    <Period>
      <TimeInterval v="2001-06-02T22:00Z/2001-06-02T23:00Z"/>
    <Resolution v="PT15M"/>
    <Interval>
      <Pos v="1"/>
      <Qty v="40"/>
    </Interval>
    <Interval>
      <Pos v="2"/>
      <Qty v="45"/>
    </Interval>
    <Interval>
      <Pos v="3"/>
      <Qty v="45"/>
    </Interval>
    <Interval>
      <Pos v="4"/>
      <Qty v="45"/>
    </Interval>
  </TimeSeriesConfirmation>
  <Reason>
    <ReasonCode v="A26"/>
  </Reason>
</ConfirmationReport>

```

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## **10. COMMUNICATIONS INFORMATION**

### **10.1 Test indication (differentiation between live and test transmissions)**

Test indication information has not been built into the messages. The recommended method for testing is to obtain a separate communications address in order to ensure that testing is carried out in a specific test environment.

### **10.2 Transmission requirements**

Schedule message interchanges between market parties and a TSO will be determined by the TSO depending on its communications infrastructure.

### **10.3 Use of the central stored DTD or Schema**

#### **10.3.1 Use of an ETSO DTD**

The ETSO Scheduling System DTDs are stored as DTDs on the site

[www.edi.ets-net.org/schedulev3r0/dtd/schedule-xml.dtd](http://www.edi.ets-net.org/schedulev3r0/dtd/schedule-xml.dtd).

This is the absolute address which may be used as the DTD reference point when sending XML message instances. However, in cases where the participating parties have a system security requirement that prevents remaining connected to the web it is recommended to make use of the following relative URL address:

[../schedulev3r0/dtd/schedule-xml.dtd](#).

This address must exist on the receiving parties system and must contain an exact replica of the DTD as it exists on the ETSO site.

#### **10.3.2 Use of an ETSO Schema**

In a similar fashion the ETSO Scheduling System Schema may be found on the site:

[www.edi.ets-net.org/schedulev3r0/schema/schedule-xml.xsd](http://www.edi.ets-net.org/schedulev3r0/schema/schedule-xml.xsd).

This address may also be used with the relative address which respect the same rules as mentioned above of:

[../schedulev3r0/schema/schedule-xml.xsd](#).

#### **10.3.3 Use of a data instance that uses indifferently the DTD or Schema**

In some contexts it may be of interest for the TSO to allow a market participant to use indifferently a DTD or an XML schema. In this case the “DOCTYPE” instruction in the DTD compliant instance or the schema instance (xsi) instruction in the schema compliant instance are not used. This results in an XML document that does not identify the DTD or XML Schema to which it is compliant. It is consequently up to the receiving party to use either the DTD or Xschema that it feels appropriate to validate the information instance. The initial XML tag provides the information necessary to determine both the XML document name (i.e. ScheduleMessage, AcknowledgementMessage, Anomalyreport or ConfirmationReport) and the version and release used (dtdVersion and dtdRelease) of the DTD or Schema being employed.

In the examples provided in paragraph 8 all the instances are shown using this method of transfer.

## 10.4 Common file naming convention

In certain circumstances, such as the use of FTP transmissions, it may be necessary to agree on a mutual naming convention for the transmission of an XML schedule file. ETSO TF14 has examined this problem and recommends that the following naming convention be employed for ESS XML messages:

1. The sender identification. The identification of the sender as identified in the XML message field "Sender Identification".
2. A hyphen ("-").
3. The message identification. The identification of the message as identified in the XML message field "Message Identification".
4. A hyphen ("-").
5. Message version. The version of the message as identified in the XML message field "Message Version" formatted as 3 digit number with leading zeros.
6. Terminating with the extension ".xml"

Example: 10x123456789012c-mess01-001.xml

## 11. THE ETSO STEERING COMMITTEE RECOMMENDATION

On the 24<sup>th</sup> of May 2002 the ETSO Steering Committee made the following recommendation concerning the use of the ESS:

*"ETSO recommends that their members implement the ETSO Scheduling System – ESS - so that the participants in the Internal Electricity Market can use a single means for electronic data interchange with the TSOs.*

*The ESS has been developed by ETSO with the support of EFET. For the moment it is believed to cover the day ahead business scheduling process for the continental Europe and it includes acknowledgement messages to improve the quality of the data interchange. The Belgian, Swiss and French TSOs have already implemented successful pilot versions and the German TSOs have decided to use it this year. The ESS will be maintained and further developed to cater for other markets (e.g. GB) and additional market requirements. The documentation is available at [www.edi.ets-net.org](http://www.edi.ets-net.org) and ETSO could provide information to facilitate the use of ESS.*

*ETSO supports the initiatives to obtain a common agreement between energy market organisations to set up a European group to harmonise the standards for electronic data interchange. ETSO proposes to provide the ESS as an initial platform for this work for evolution and continuing maintenance. ETSO will support such work with its own experts from its Electronic Data Interchange Task Force and with a possible outside consultant financed by ETSO to be decided separately within the frame of the budget."*