



ETSO Scheduling System

(ESS)

Implementation Guide

Version : 3

Release : 3

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REVISION HISTORY

Version	Release	Date	Paragraphs	Comments
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.
			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

Version	Release	Date	Paragraphs	Comments
			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.
			General	Removed all DTDs to separate section. Minor editorial corrections
2	1	2002-12-22	4, 5, 6, 7	Corrected chapter titles
			8	Correction of word “CodingScheme” to “codingScheme”. Change of “\” to “/”.
2	2	2003-02-12	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
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.

Version	Release	Date	Paragraphs	Comments
			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
			10.3	<p>Added header information to cater for the transmission of schedules with historical information (Matching Period).</p> <p>Restructure section to Add information relative to schemas.</p> <p>Restructured to introduce modified transmission rules</p>

Version	Release	Date	Paragraphs	Comments
				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	5.2.2.2	Introduced modifications of the Intraday group after agreement
3	2	2009-03-27	General 2.1 2.2 3.1 3.2 3.3 3.4 3.5 3.6 3.7 5.2.1 5.2.2.1 5.2.2.2 5.2.4 5.2.6 5.3.1 5.3.12 5.3.13 5.3.14 5.4 8.2 8.2.9 8.3.1 9.1.3, 9.2.3, 9.3.3 10.3	Changed TF 14 to TF EDI throughout Modified last sentence to make it more general and exclusively Day ahead. Deleted sentence concerning imbalance Clarified cutoff of related processes Deleted to definition of Acknowledgement document Added sentence to clarify Subject party use Clarified rule 1, 8,13, added new rule (6) Revised complete section Added new 3.6 Added new 3.7 Changed dependency table to ensure that A05 was deprecated and that the party identification was only mandatory if the Object Aggregation = A03. Revised first paragraph to clarify the meaning of document identification Revised the Intraday description to clarify the use of the different Process Types Revised table to reject document in all cases where a time series is incorrect Moved examples to section 11 Removed global position indications and clarified identification Revised dependency rule Removed Global position indications and revised dependency rule. Revised dependency rule. Removed “global” Removed “global position reference Removed global position references Removed global position references Eliminated DTD Changed to eliminate DTD use and to use only relative addresses.
3	3	2009-04-23	5.1, 5.5, 5.5.1	Change to add the Reason Class to the Interval level and to add additional codes for curtailment. Approved by Steering Committee

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REFERENCE DOCUMENTS.

1. The Harmonised 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 EDI 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”.

218 **NOTE CONCERNING WORDING USED IN THIS DOCUMENT**

219 The force of the following words is modified by the requirement level of the document in which
220 they are used.

- 221 • **MUST:** This word, or the terms “REQUIRED” or “SHALL”, means that the definition is an
222 absolute requirement of the specification.
- 223 • **MUST NOT:** This phrase, or the phrase “SHALL NOT”, means that the definition is an
224 absolute prohibition of the specification.
- 225 • **SHOULD:** This word, or the adjective “RECOMMENDED”, means that there may exist valid
226 reasons in particular circumstances to ignore a particular item, but the full implications must
227 be understood and carefully weighed before choosing a different course.
- 228 • **SHOULD NOT:** This phrase, or the phrase “NOT RECOMMENDED”, means that there may
229 exist valid reasons in particular circumstances when the particular behaviour is acceptable or
230 even useful, but the full implications should be understood and the case carefully weighed
231 before implementing any behaviour described with this label.
- 232 • **MAY:** This word, or the adjective “OPTIONAL”, means that an item is truly optional. One
233 vendor may choose to include the item because a particular marketplace requires it or because
234 the vendor feels that it enhances the product while another vendor may omit the same item. An
235 implementation which does not include a particular option **MUST** be prepared to interoperate
236 with another implementation which does include the option, though perhaps with reduced
237 functionality. In the same vein an implementation which does include a particular option
238 **MUST** be prepared to interoperate with another implementation which does not include the
239 option (except, of course, for the feature the option provides.)

240 **Note:** The word “schedule” and the word “plan” may be used interchangeably in this document
241 (Oxford: Schedule – a programme or plan of events).

243 **1. OBJECTIVE**

244 The principal objective of this implementation guide is the standardisation of the scheduling
245 process information exchanges between Market Participants on the European Internal Electricity
246 Market. It has a secondary objective to make it possible for software vendors to develop an IT
247 application that can exchange electricity market schedules, such as day ahead or intra day
248 schedules, between all related parties in all countries.

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

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

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

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

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

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

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

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

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

278 The full balance management process can be broken down into three phases:

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

292 **The electronic documents defined in this document cover the first phase of the balance**
293 **management process, the planning phase which is basically performed during day-ahead and**
294 **intraday scheduling.**

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

299 **2.1 Definition**

300 The electronic documents defined in this document enable balance responsible parties (e.g. trade
301 responsible, production responsible, consumption responsible parties) to send their schedules
302 (consumption, production, interconnection, etc.) to the system operators for different scheduling
303 processes such as long term, day ahead, intraday, etc..

2.2 Operational scenario

2.2.1 The overall context

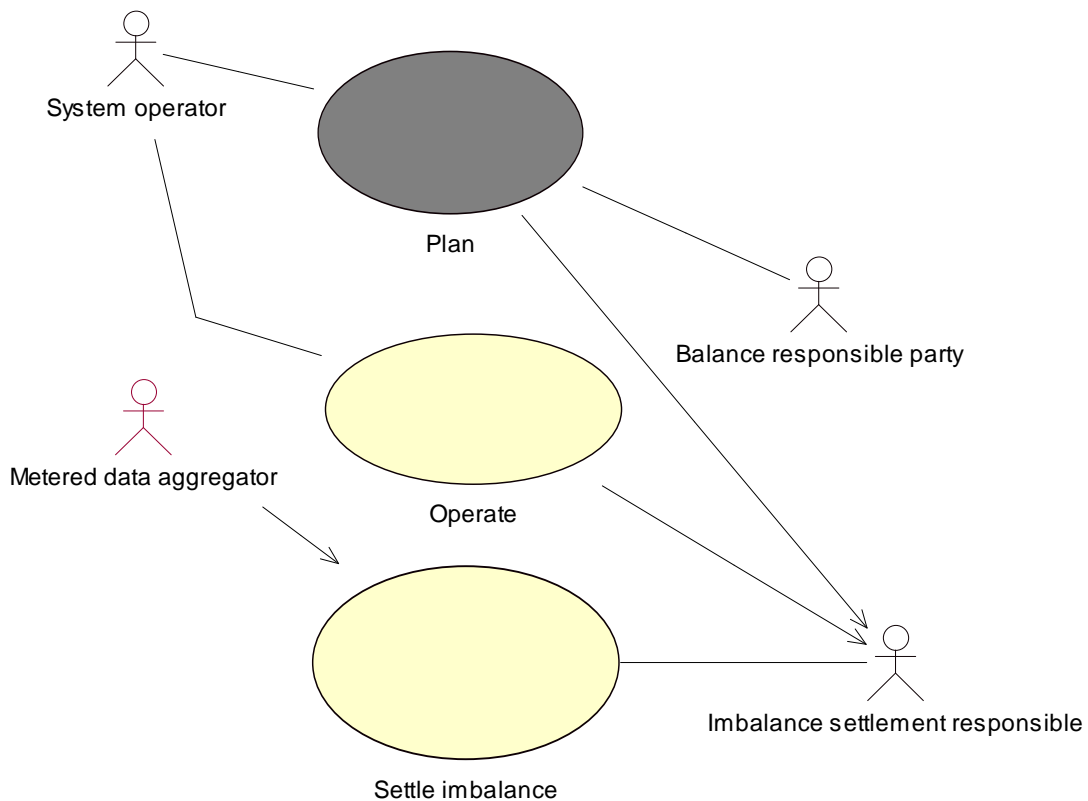


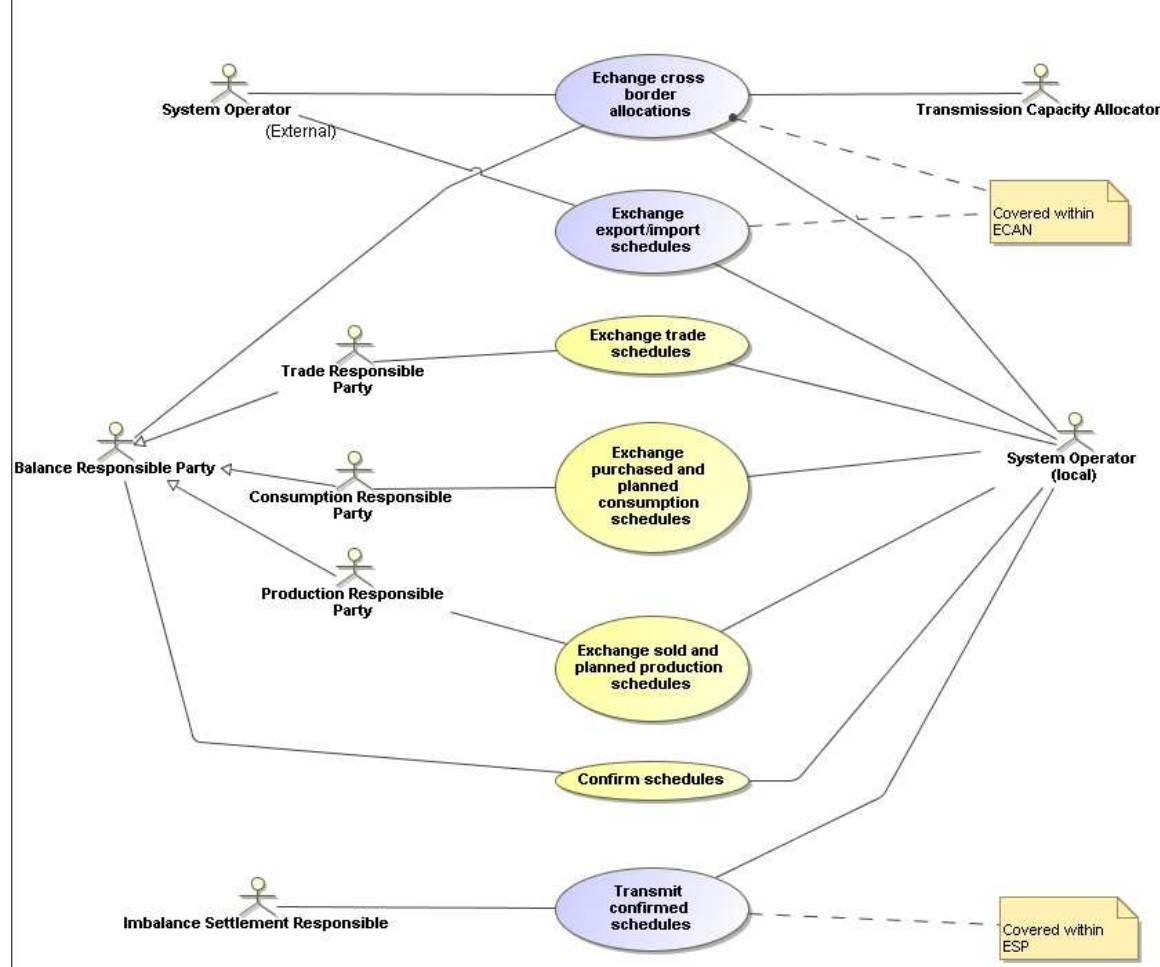
Figure 1: The balance management process perspective

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.

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

329 **2.2.2 Breakdown of the planning phase**



330
331 **Figure 2: Information exchange during the planning phase**

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

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

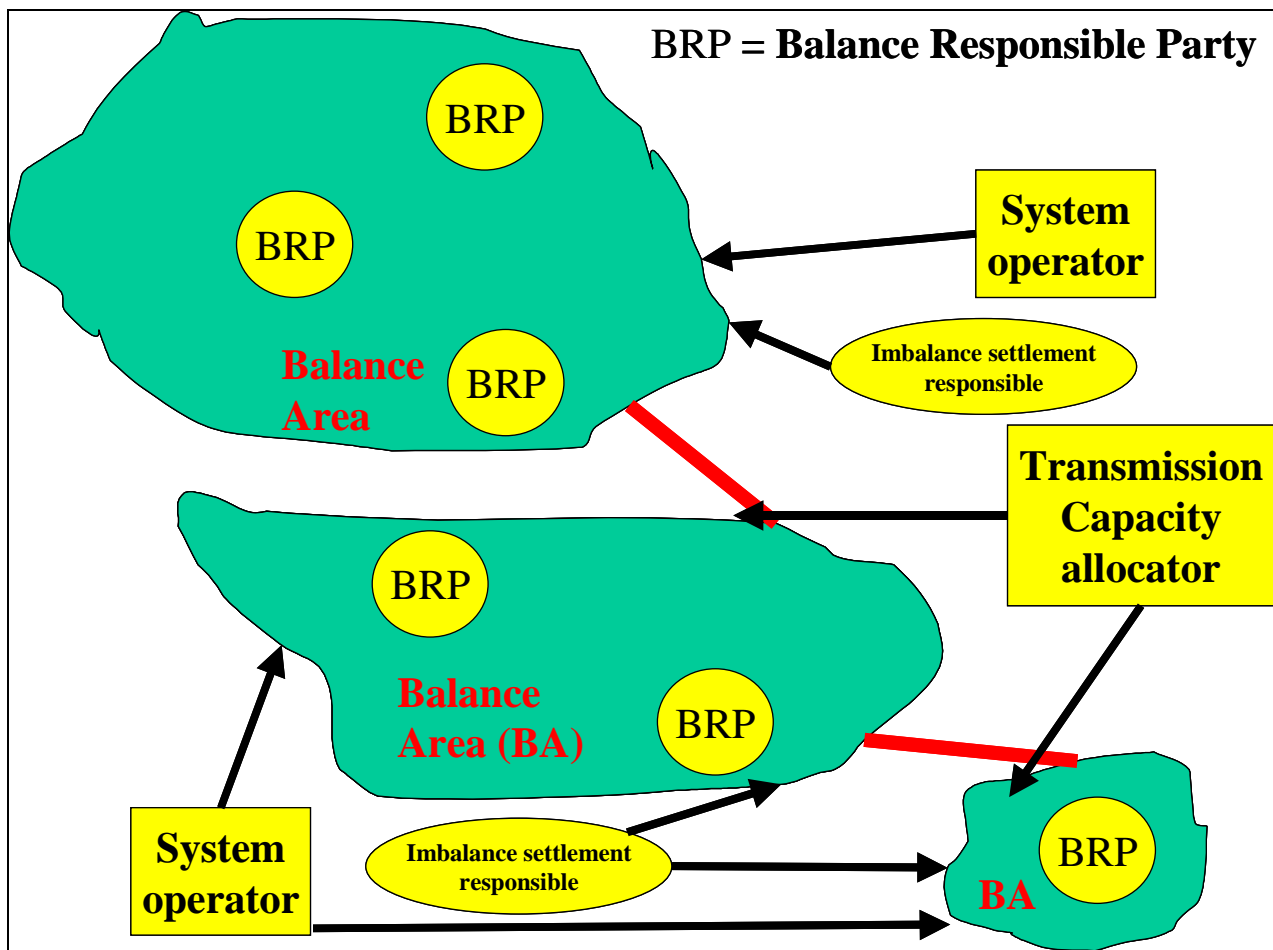


Figure 3: Domains of responsibility

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.

This guide covers the gathering of all the trade, production, consumption and other relevant schedules necessary for the planning phase.

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.

360 3. SCHEDULE SYSTEM INFORMATION REQUIREMENTS

361 3.1 Process flow

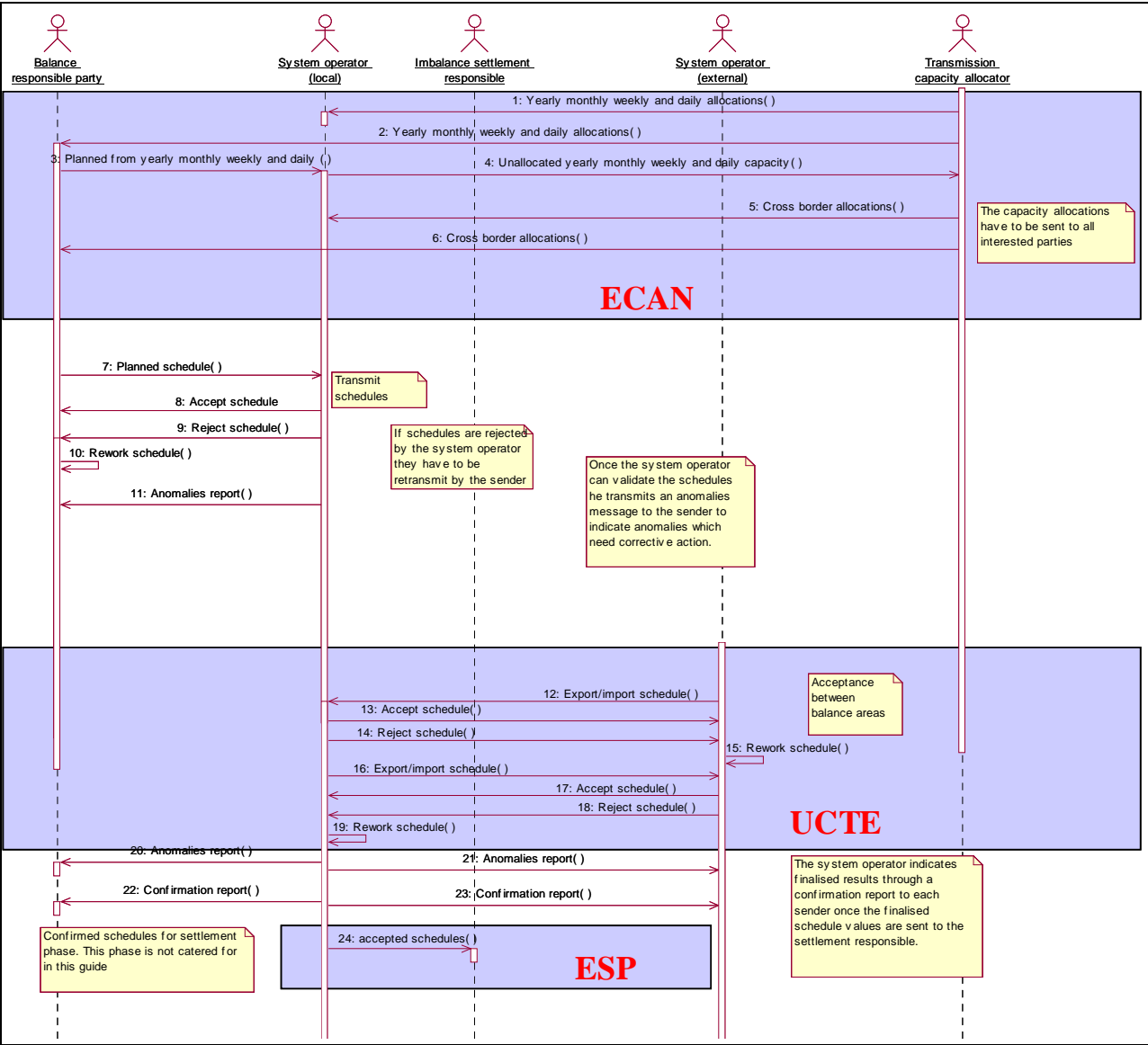


Figure 4: Typical sequence diagram of the information flow from the local system operator perspective

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 the day ahead and intraday 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.

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

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

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

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

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

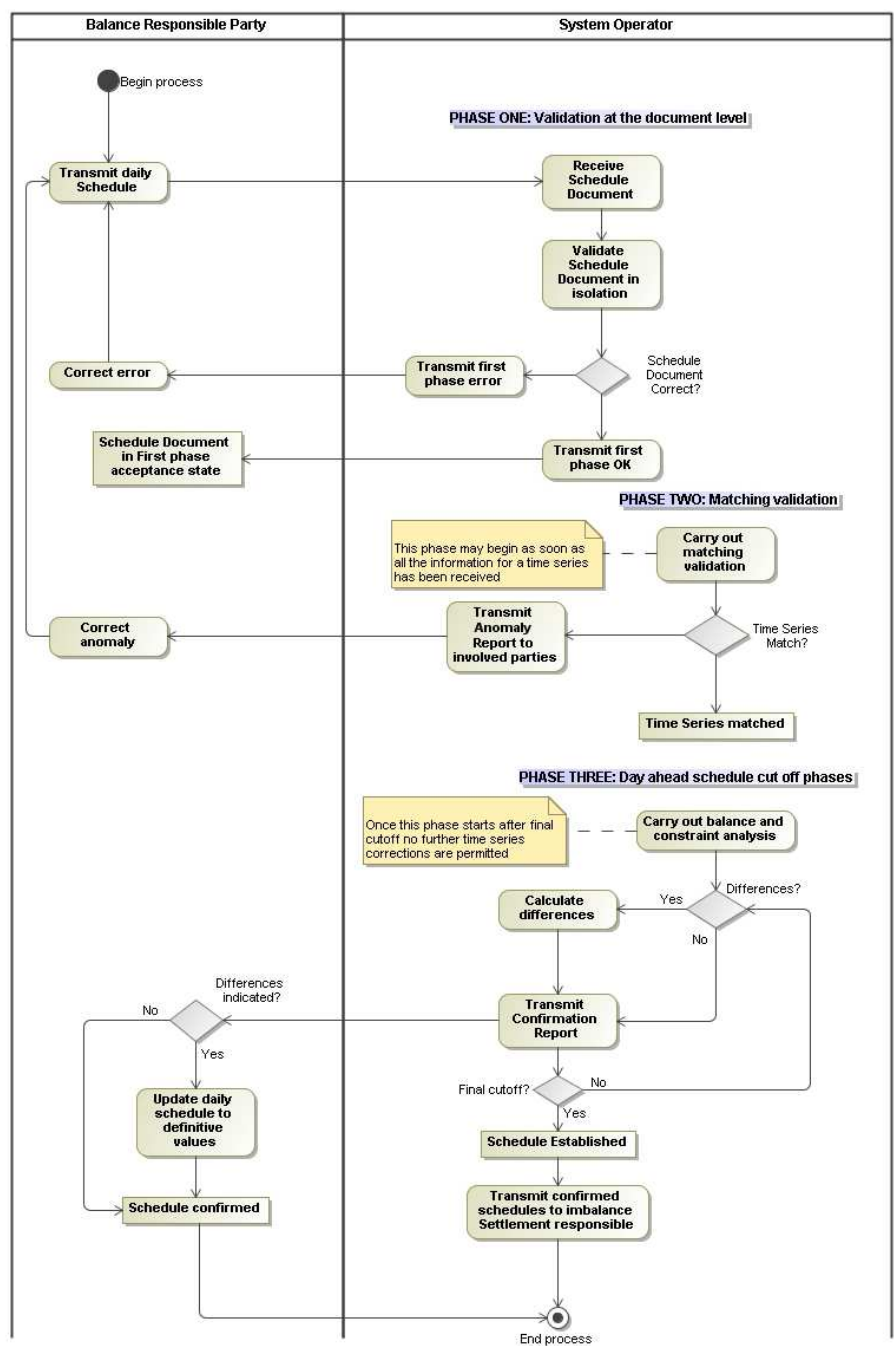
398 As soon as cut-off occurs the system operator will finalise all controls respecting market rules. He
399 will then send a confirmation report (or eventually an anomaly report) to the various parties
400 informing them of the actions that will be taken into account for the day in question.

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

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

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

411 3.2 Schedule system information flows



412
413 **Figure 5: Schedule planning transmission process**

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

416 The schedule document transmission cycle is composed of three phases:

- 417 1. The initial transmission of the schedule document to the system operator. During this
418 phase the document is verified for coherence independently of all the schedule
419 documents that have been transmit by other parties. This phase verifies the coherence of
420 the time series within the document. The phase ends with the transmission to the sender
421 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 anomaly report document and the confirmation report document is defined within this guide. For the acknowledgement document definition refer to: [4] "The ETSO Acknowledgement document"

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

In order to ensure a common means of providing the Balance Responsible Party that is identified at the level of the time series, the Subject Party attribute has been introduced. Whenever a Schedule Document provides time series information with party granularity, the Subject Party attribute shall be used to identify the party referred to in all the time series in the document.

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 position in compliance with market rules for a given process.
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. An acknowledged version of a document replaces the previous version of the document in question.
7. 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.
8. All the times 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:MM:SSZ in order to remain in conformity with XML schema requirements.
9. 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).
10. The resolution of a time series period shall always be expressed in minutes.
11. The time interval defined in the period class shall always be a multiple of its resolution.

- 508 12. For a schedule document the time interval of a period class shall always be equal
509 to the Schedule time interval.
- 510 13. Negative quantities for a time series are only permitted for certain categories of
511 netted time series .
- 512 14. A time series shall be suppressed by zeroing out all the time interval class
513 quantities in the time series.
- 514 15. It is preferred that the quantity for a balance responsible time series in a day
515 ahead and an intra day schedule is given in power units' as the average value
516 over the time interval, i.e. MW (code MAW). If the quantity time interval does
517 not correspond to a multiple of 60 minute intervals, converting average power to
518 energy will often result in rounding errors. If this is the case, it is recommended
519 that energy units of measure are used.
- 520 16. The quantity for an allocated capacity schedule is always given in maximum
521 power units, i.e. MW (code MAW).
- 522 17. Whenever a coded value within a document is associated with a coding scheme,
523 the coding scheme must always be supplied. The coding scheme is an
524 independent attribute with a size of 3 alphanumeric characters.

525 3.5 Position of a party or a domain

526 The ETSO Scheduling System is based on the principle of the transmission of all the information
527 relative to a **Party** or a **Domain** (i.e. the transmission of a summary of the **Party** information for a
528 given domain) in a single Document for a given **Period** and a **Process providing the position of the**
529 **party or the domain for the period and process in question**

530 The terms in **bold characters** are defined as follows:

531 The **Party** is defined in the "SubjectParty" attribute of the document. It must appear in the In or Out
532 Party attributes of each time series when the position for the party in question is being sent. A
533 "SubjectRole" is mandatory with each SubjectParty to identify the role of the SubjectParty. In case
534 where the document defines the position relative to a Domain these attributes will not be present.

535 The **Domain** is defined in the "Domain" attribute of the document. The InArea or the OutArea shall
536 be related to the Domain.

537 The **Domain** is in general the Market Balance Area that is the subject of the schedule plan. Other
538 domains may also be used as required, for example ITC areas. The domain can also be a subset of
539 the Market Balance Area which has to be identified separately depending on market rules (e.g.
540 different market cut-off times). Some examples: "Internal trades + external trades of the Market x",
541 "Only Internal trades of the Market x", "Only External trades border x", "Power exchange trades",
542 "Trades for compensation of losses", etc.

543 The **Period** is defined in the "ScheduleTimeInterval" attribute of the document.

544 The **Process** used within the document is defined in the ProcessType attribute. Some examples are:
545 intraday, day ahead, day ahead schedule associated to daily capacity contract, day ahead schedule
546 associated to long term capacity contracts, etc.

547 It should be pointed out that different Documents, i.e. with different Document Identifications, can
548 be issued for the same ProcessType to enable the management of different gate closures.

549 **3.6 Current Position**

550 The ***Current Position*** of a ***Party*** within the ***Domain*** for a specific point in time is defined by the
551 confirmed schedules for that party at that point in time.

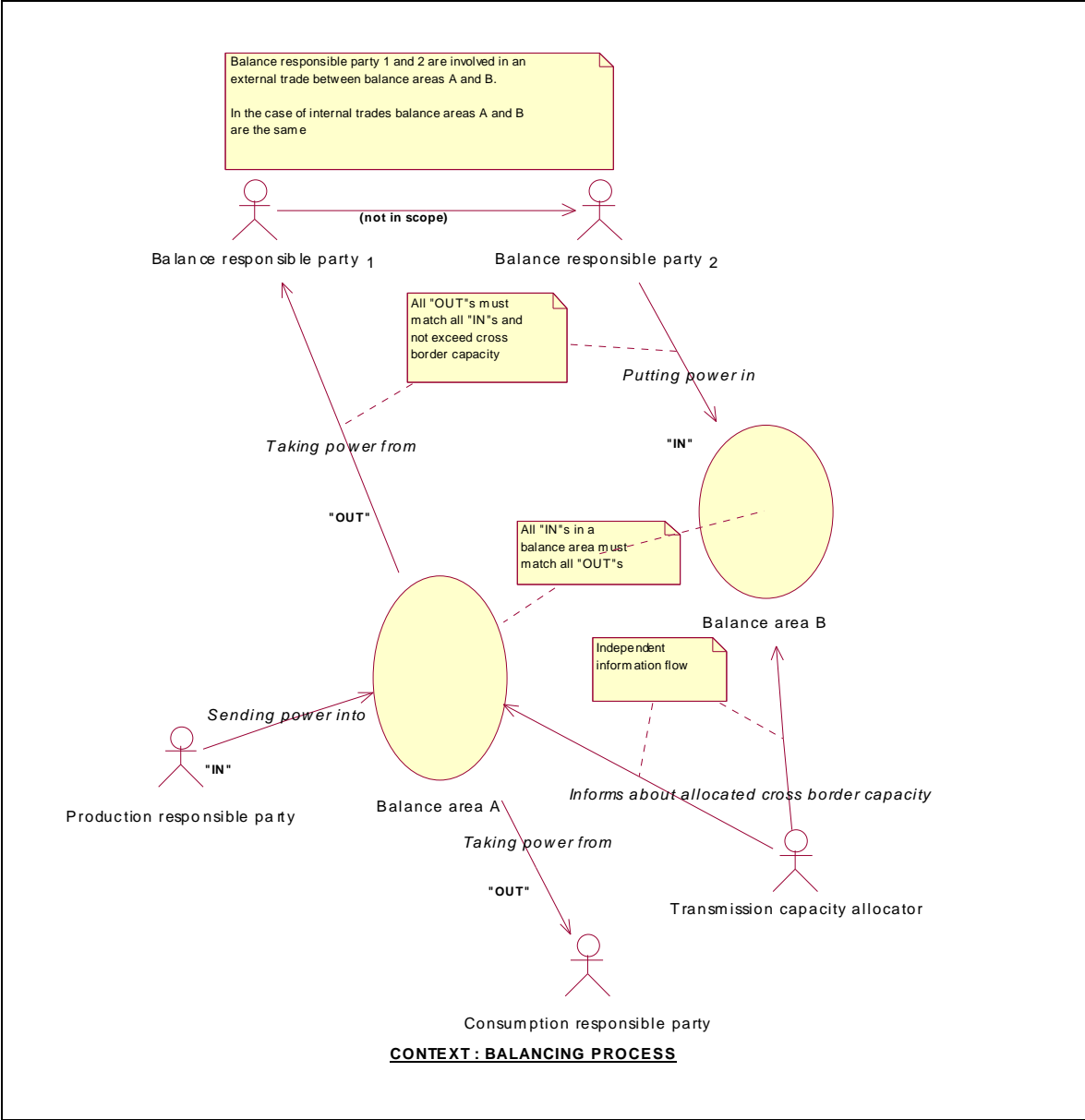
552 A list of the different ways of calculating the current position of a party for a specific point in time
553 is given in §5.2.2.2 dealing with the intraday process.

554 This list is not exhaustive; other processes such as Long Term Scheduling, Post Scheduling
555 Adjustment, etc. exist and are not detailed in this document. These are local market dependent and
556 should be described in the local market rule.

557 **3.7 Incremental values**

558 The confirmed values need to be added to other confirmed values to compute the ***Current Position***
559 of the party. Thus in A02 process values are **incremental** in reference to the day ahead process and
560 the previous intraday gates, but in A19 process values are **incremental** only in reference to the day
561 ahead process.

562 **3.8 Energy flow direction**



563
564 **Figure 6:** Energy flow use case.

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

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

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

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

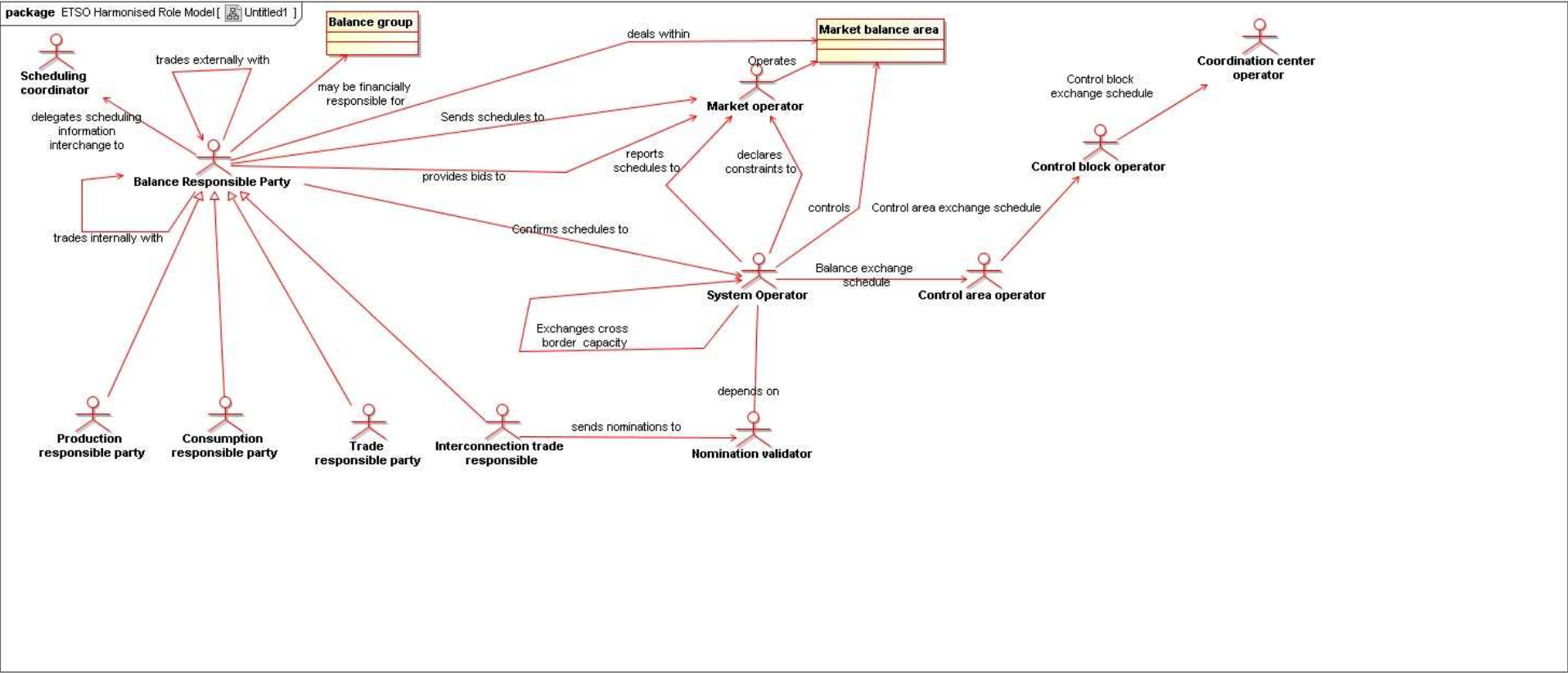
579 In the case of trades between parties in different areas the “out area” shall always be
580 different to the “in area”. If this is not the case then an error condition shall be raised. The
581 energy flow shall always go from the “out area” to the “in area”.

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

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

586 **4. SCOPE OF THE ESS WITHIN THE CONTEXT OF THE ROLE MODEL**

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



588
589 **Figure 7: Scope of the ESS within the harmonised role model**

590

5. SCHEDULE DOCUMENT IMPLEMENTATION

5.1 Information model

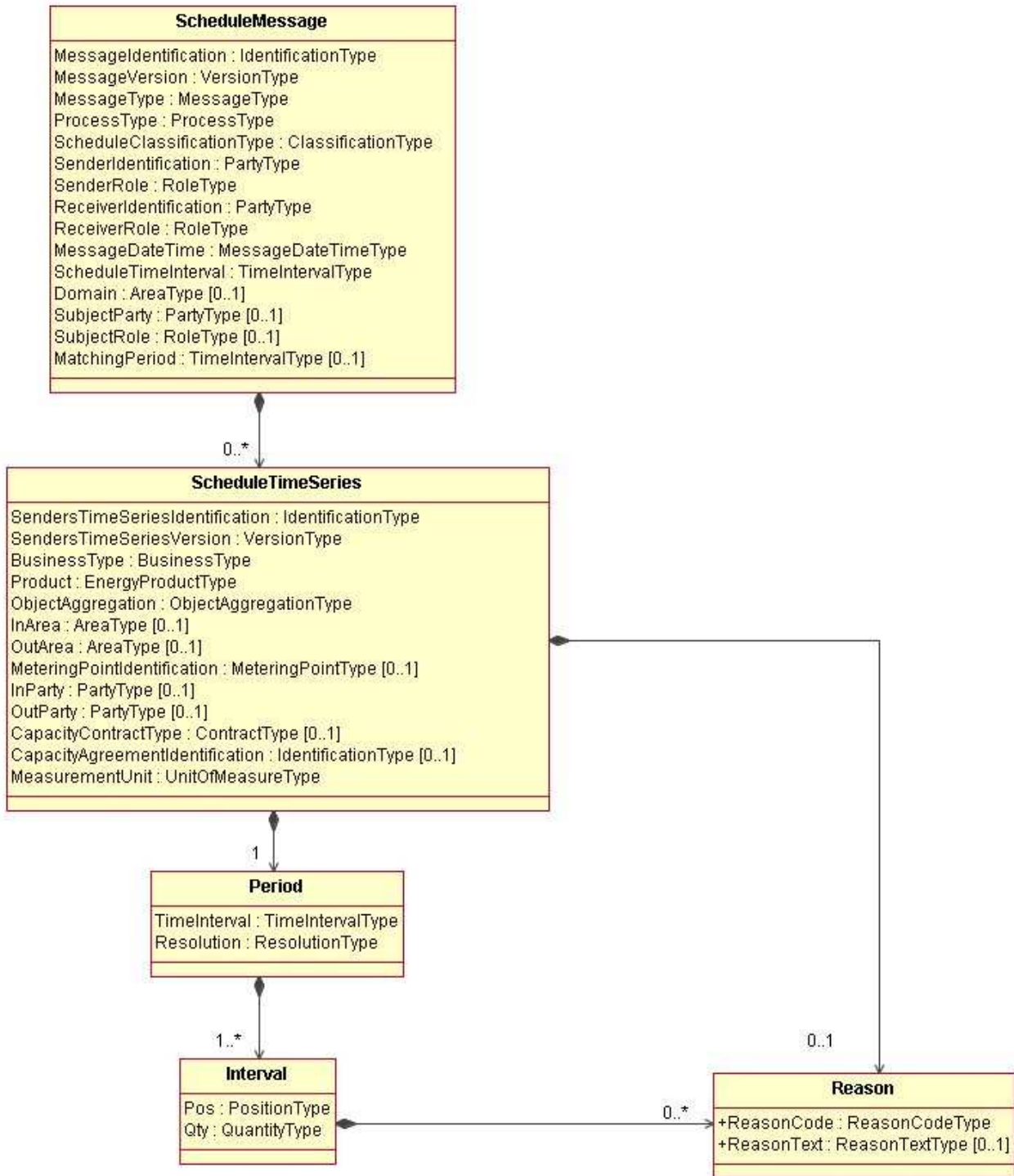


Figure 8: The Schedule Document information model

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 <small>Note: Party is only mandatory if ObjectAggregation = A03</small>			
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 <small>Note: the use of this Business Type has been deprecated (the Business Type A06 with an Object Aggregation of A01 provides the same functionality)</small>	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.

603 5.2.2 General rules governing document content

604 5.2.2.1 Document and time series version numbers.

605 A schedule document provides the position of a Party or a Domain related to some market
606 information (i.e. DocumentType). It includes a set of time series schedules.

607 It is required that one schedule document is exchanged for a gate which means that if there
608 are additions, modifications or suppressions to the set of time series within the schedule
609 document, the document identification remains unchanged but the version number must be
610 increased. Unique identification of a schedule document is therefore materialised by its
611 sender identification and document identification.

612 The initial transmission of a schedule document should generally have a version number of
613 "1". However, in specific circumstances this may be different, but the initial transmission
614 of a document should always have the lowest version number for that document. For each
615 transmission of the schedule document the version number is increased. The receiver shall
616 ensure that a retransmitted schedule document has a version number strictly higher than the
617 previous version number. The document version number (called message version in the
618 information model) does not have to be in strict sequential order.

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

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

632 5.2.2.1.1 Example where market rules dictate that only changed time series have their 633 version number changed.

634 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

635 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

636 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

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

640 **5.2.2.1.2 Example where market rules dictate that all time series should have the same**
641 **version in the document**

642 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

643 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

644 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 as that of a day ahead document.

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

The table below outlines the characteristics that apply to intra-day trading:

<i>Process Type</i>	<i>Name</i>	<i>Number of unique Documents</i>	<i>Information (values)</i>	<i>Schedule TimeInterval</i>	<i>Matching Period</i>
A01¹	Day Ahead	1	Current Position	Whole day	Whole day
A02	Intraday incremental	N (1 per gate)	Incremental values	Remaining hours	Remaining hours
A17	Schedule Day	1	Current Position	Whole day	Remaining hours
A18	Intraday total	N (1 per gate)	Current Position	Whole day	Remaining hours
A19	Intraday accumulated	1 (1 per gate)	Incremental values	Whole day	Remaining hours

Depending on the intraday process implemented in a market, there are different ways to calculate the **Current Position** for a party at a given point in time:

- **Intraday incremental (A02):** Current Position is the aggregation of the confirmed schedules, especially within Day Ahead (A01) and Intraday (A02) processes
 $CP = A01 + A02_{(1st\ intraday)} + A02_{(2nd\ intraday)} + A02_{(...)} + \dots$
- **Schedule day (A17):** Current position is given by the last confirmed document
 $CP = A17$
- **Intraday total (A18):** Current position is given by the last confirmed document
 $CP = A01$, and at a latter point in time replaced by A18
- **Intraday accumulated (A19):** Current Position is the aggregation of the confirmed schedules from the Day Ahead (A01) schedule document and the schedules from the last confirmed Intraday accumulated (A19) schedule document
 $CP = A01 + A19$

¹ A01 ProcessType has been included for completeness although the process it describes is not intraday.

663 As illustrated in the figures 9 and 10 below.

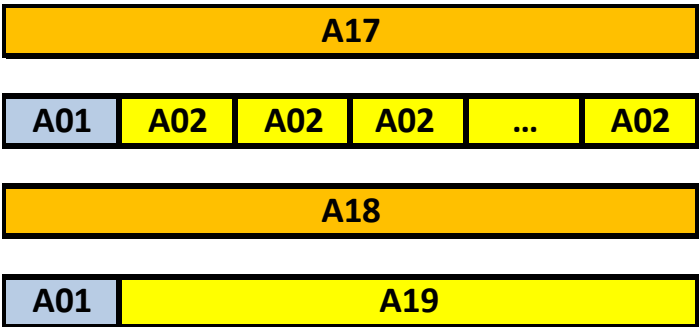


Figure 9: Scope of Process Types

Document identification, values and calculation of the current position in relation to the intraday process type					
Schedule nomination for:	day ahead	intra day			
		gate 1	gate 2	...	gate n
Values:	Val0	Val1	Val2	...	Valn
Process type:	A17	A17	A17	...	A17
Document Identification:	ID0	ID0	ID0	...	ID0
Initial Document Version:	1	day ahead +1	gate1 +1	...	gate(n-1) +1
Schedule Time Interval	whole day	whole day	whole day	...	whole day
Matching Period	whole day	rest of day	rest of day	...	rest of day
Value interpretation:	Total	Total	Total	...	Total
Current position:	Val0	Val1	Val2	...	Valn
Process type:	A01	A02	A02	...	A02
Document Identification:	ID0	ID1	ID2	...	IDn
Initial Document Version	1	1	1	...	1
Schedule Time Interval	whole day	rest of day	rest of day	...	rest of day
Matching Period	whole day	rest of day	rest of day	...	rest of day
Value interpretation:	Total	Increment to day ahead	Increment to gate 1	...	Increment to gate(n-1)
Current position:	Val0	Val0 + Val1	Val0+Val1+Val2	...	Val0+Val1+Val2+ ... +Valn
Process type:	A01	A18	A18	...	A18
Document Identification:	ID0	ID1	ID2	...	IDn
Initial Document Version	1	1	1	...	1
Schedule Time Interval	whole day	whole day	whole day	...	whole day
Matching Period	whole day	rest of day	rest of day	...	rest of day
Value interpretation:	Total	Total	Total	...	Total
Current position:	Val0	Val1	Val2	...	Valn
Process type:	A01	A19	A19	...	A19
Document Identification:	ID0	ID1	ID1	...	ID1
Initial Document Version	1	1	gate1 +1	...	gate(n-1) +1
Schedule Time Interval	whole day	whole day	whole day	...	whole day
Matching Period	whole day	rest of day	rest of day	...	rest of day
Value interpretation:	Total	Increment to day ahead	Increment to day ahead	...	Increment to day ahead
Current position:	Val0	Val0+Val1	Val0+Val2	...	Val0+Valn
Note on Document Version: Version should normally start with 1. But there is no strict limitation on the initial version number and the increment.					

Figure 10: Examples of use of the different process types

Other possibilities for operating intra day trading and their corresponding schedules may be defined in local market rules, 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:

		Area		Party			
Business type	Name	IN	OUT	IN	OUT	Capacity agreement	Capacity contract
A03	External trade explicit capacity	M	M	M	M	M	M

Object aggregation	Name	Metering point
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.

688
689
690

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:

ERROR	SECONDARY CONDITION	ACTION
1. A document header error.		The complete document is rejected.
2. A time series identification level error.	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.	The complete time series is rejected
	If the position doesn't exist.	The complete time series is rejected
	If the position is missing;	The complete time series is rejected.

691 5.2.5 A document without any time series instances

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

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

698 5.2.6 Schedule document Examples

699 All examples have been moved to section 12 at the end of the document.

700 **5.3 Schedule document class specifications**

701 **5.3.1 Message Identification**

ACTION	DESCRIPTION
Definition of element	Unique identification of the document for which the time series data is being supplied.
Description	<p>A schedule document must have a unique identification assigned by the sender of the document to be sent to a receiver.</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. For example. 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. One document will be sent in the sender's capacity as production responsible party and one in his capacity as trade responsible party.</p> <p>In cases where several roles are required in a single document a generic role must be used.</p> <p>.</p>
Size	The identification of a schedule document may not exceed 35 alphanumeric characters.
Applicability	This information is mandatory.
Dependence requirements	None

702 **5.3.2 Message Version**

ACTION	DESCRIPTION
Definition of element	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.
Description	<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>
Size	A version number may not exceed 3 numeric characters with no leading zeros.
Applicability	This information is mandatory.
Dependence requirements	None.

703 **5.3.3 Message Type**

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

704 **5.3.4 Process Type**

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

705 **5.3.5 Schedule classification type**

ACTION	DESCRIPTION
Definition of element	A type that is used to classify the schedule by aggregation or classification.
Description	The schedule classification type identifies the aggregation or classification type of the schedule 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. Refer to ETSO Code list document for the valid list of codes.
Size	The schedule classification type value may not exceed 3 alphanumeric characters.
Applicability	This information is mandatory.
Dependence requirements	None.

706 **5.3.6 Sender Identification – Coding Scheme**

ACTION	DESCRIPTION
Definition of element	Identification of the party who is sending the document.
Description	<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. Refer to ETSO Code list document for the valid list of codes.</p>
Size	<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>
Applicability	Both the identification and the coding scheme are mandatory.
Dependence requirements	None.

707 **5.3.7 Sender Role**

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

708 **5.3.8 Receiver Identification – Coding Scheme**

ACTION	DESCRIPTION
Definition of element	Identification of the party who is receiving the schedules.
Description	<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. Refer to ETSO Code list document for the valid list of codes.</p>
Size	<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>
Applicability	Both the identification and the coding scheme are mandatory.
Dependence requirements	None.

709 **5.3.9 Receiver Role**

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

710 **5.3.10 Message Date And Time**

ACTION	DESCRIPTION
Definition of element	Date and time of transmission of the scheduling data.
Description	The date and time that the document was prepared for transmission by the application of 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.

711 **5.3.11 Schedule Time Interval**

ACTION	DESCRIPTION
Definition of element	The beginning and ending date and time of the period covered by the document containing the schedule.
Description	<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>
Size	<p>The start and end date and time must be expressed with a UTC time as follows:</p> <p>YYYY-MM-DDTHH:MMZ/YYYY-MM-DDTHH:MMZ.</p>
Applicability	This information is mandatory.
Dependence requirements	None.

712 **5.3.12 Domain - codingScheme**

ACTION	DESCRIPTION
Definition of element	The domain covered within the Schedule Message Document.
Description	<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. Refer to ETSO Code list document for the valid list of codes.</p>
Size	<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>
Applicability	The Domain attribute shall be mandatory for ESS V3.2 schedules. For previous releases of ESS V3, the Domain attribute is dependent on local market rules.
Dependence requirements	None

713 **5.3.13 Subject Party – codingScheme**

ACTION	DESCRIPTION
Definition of element	The Party that is the subject of the Schedule Message Document
Description	<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 codification scheme used for the coded identification is indicated by the coding scheme attribute. It is a 3 character alphanumeric code. Refer to ETSO Code list document for the valid list of codes.</p>
Size	<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>
Applicability	This information is dependent.
Dependence requirements	For ESS V3.2 schedules, when all the time series in a document refer to a single party the SubjectParty shall be mandatory. For previous releases of the ESS V3, the SubjectParty attribute is dependent on local market rules.

714 **5.3.14 Subject Role**

ACTION	DESCRIPTION
Definition of element	The Role of the Subject Party.
Description	<p>Where the subject party is described then the subjectrole must be used to describe the role of the party</p> <p>Refer to ETSO Code list document for the valid list of codes.</p>
Size	The maximum length of this information is 3 alphanumeric characters.
Applicability	This information is dependent.
Dependence requirements	If the Subject Party is present the Subject Role is mandatory.

715 **5.3.15 Matching Period**

ACTION	DESCRIPTION
Definition of element	The beginning and ending date and time of the period that is to be matched within the schedule.
Description	<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>
Size	<p>The start and end date and time must be expressed with a UTC time as follows:</p> <p>YYYY-MM-DDTHH:MMZ/YYYY-MM-DDTHH:MMZ.</p>
Applicability	This information is dependent.
Dependence requirements	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..

716 5.4 Rules governing the Schedule Time Series class

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

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

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

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

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

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

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

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

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

743 **5.4.1 Senders Time Series Identification**

ACTION	DESCRIPTION
Definition of element	<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>
Description	<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>
Size	The maximum size of a time series identification is 35 alphanumeric characters.
Applicability	This information is mandatory.
Dependence requirements	None.

744 **5.4.2 Senders Time Series Version**

ACTION	DESCRIPTION
Definition of element	<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>
Description	<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>
Size	The maximum size of a time series version is 3 numeric characters with no leading zeros.
Applicability	This information is mandatory.
Dependence requirements	This data element is always associated with the sender's time series identification.

745 **5.4.3 Business type**

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

746 **5.4.4 Product**

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

747 **5.4.5 Object aggregation**

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

748 **5.4.6 In Area – Coding Scheme**

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

749 **5.4.7 Out Area – Coding Scheme**

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

750 **5.4.8 Metering Point Identification – Coding Scheme**

ACTION	DESCRIPTION
Definition of element	<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>
Description	<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"> - A value. - 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. - A coding scheme. <p>Refer to ETSO Code list document for the valid list of codes.</p>
Size	<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>
Applicability	This information is dependent.
Dependence requirements	Refer to the matrix in 5.2.1 for dependency requirements.

751 **5.4.9 In Party – Coding Scheme**

ACTION	DESCRIPTION
Definition of element	The party that is putting the product into the area.
Description	<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. Refer to ETSO Code list document for the valid list of codes.</p>
Size	<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>
Applicability	This information is dependent.
Dependence requirements	Refer to the matrix in 5.2.1 for dependency requirements.

752 **5.4.10 Out Party – Coding Scheme**

ACTION	DESCRIPTION
Definition of element	The party taking the product out of the area.
Description	<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. Refer to ETSO Code list document for the valid list of codes.</p>
Size	<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>
Applicability	This information is dependent.
Dependence requirements	Refer to the matrix in 5.2.1 for dependency requirements.

753 **5.4.11 Capacity Contract Type**

ACTION	DESCRIPTION
Definition of element	<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>
Description	<p>This information defines the conditions under which the capacity was allocated and handled.</p> <p>Refer to ETSO Code list document for the valid list of codes.</p>
Size	The maximum length of this information is 3 alphanumeric characters.
Applicability	This information is dependent.
Dependence requirements	Refer to the matrix in 5.2.1 for dependency requirements.

754 **5.4.12 Capacity agreement identification**

ACTION	DESCRIPTION
Definition of element	The identification of an agreement for the allocation of capacity to a party.
Description	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.
Size	The maximum length of this information is 35 alpha-numeric characters.
Applicability	This information is dependent.
Dependence requirements	Refer to the matrix in 5.2.1 for dependency requirements.

755 **5.4.13 Measurement Unit**

ACTION	DESCRIPTION
Definition of element	The unit of measure which is applied to the quantities in which the time series is expressed.
Description	<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>Refer to ETSO Code list document for the valid list of codes.</p>
Size	The maximum length of this information is 3 alphanumeric characters.
Applicability	This information is mandatory.
Dependence requirements	None.

5.5 Rules governing the Reason class

The reason class is used under the following conditions:

- it is used at the Time Series level during intra-day processing to provide the reason for the modifications that are being carried out on the time series.
- It is used at the Interval level to provide an indication that the quantity specified has been changed from the original submission to satisfy a technical constraint of the network.

It is not currently considered for use in other contexts.

5.5.1 Reason code

ACTION	DESCRIPTION
Definition of element	<p>A code indication that a textual reason for modification will be provided in the reason text. Currently the following codes have been identified :</p> <p>At the Time Series level:</p> <ul style="list-style-type: none">• A48 : Modification reason. <p>At the Interval level:</p> <ul style="list-style-type: none">• A97: Force Majeur curtailment• A98: Network security curtailment• Refer to the ETSO code list for other codes for this purpose.
Description	<p>At the Time series level 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.</p> <p>At the Interval level the reason code is used to identify the nature of a curtailment that has been imposed on the specified quantity.</p>
Size	The maximum length of this information is 3 alphanumeric characters.
Applicability	This information is dependent on market conditions.
Dependence requirements	This information is mandatory for intra day trading or to provide curtailment information if market conditions so dictate.

765 **5.5.2 Reason Text**

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

766 **5.6 Rules governing the Period class**

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

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

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

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

773 A senders minimal resolution must respect market rules.

774 **5.6.1 Time Interval.**

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

775 **5.6.2 Resolution**

ACTION	DESCRIPTION
Definition of element	The resolution defining the number of periods that the time interval is divided.
Description	This information the resolution of a single period. The time interval must contain a whole number of periods as expressed by the resolution.
Size	<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>
Applicability	This information is mandatory.
Dependence requirements	None.

776 **5.7 Rules governing the Interval class**

- 777 The interval class contains the relative position within a time interval period and the
778 quantity associated with that position.
- 779 The position must begin with 1 and increment by 1 for each subsequent position forming a
780 series of contiguous numbers covering the complete range of the period.
- 781 Any leading zeros in a position shall be suppressed.
- 782 Negative values are not allowed in schedule time series quantities except in the case where
783 a netted business type is employed. If the direction of the product flow changes during the
784 schedule period the two time series with opposite In area, Out area and parties are required.
- 785 Zero value periods must be sent.
- 786 Leading zeros in a quantity shall be suppressed before transmission.
- 787 If the direction of the product flow changes during the schedule time interval the two time
788 series with opposite in area, out area or parties are required.

789 **5.7.1 Pos**

ACTION	DESCRIPTION
Definition of element	The relative position of a period within a time interval.
Description	This information provides the relative position of a period within a time interval.
Size	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.
Applicability	This information is mandatory.
Dependence requirements	None.

790 **5.7.2 Qty**

ACTION	DESCRIPTION
Definition of element	The quantity of the product scheduled for the position within the time interval in question.
Description	<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>
Size	<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>
Applicability	This information is mandatory.
Dependence requirements	None.

6. ACKNOWLEDGEMENT DOCUMENT IMPLEMENTATION

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

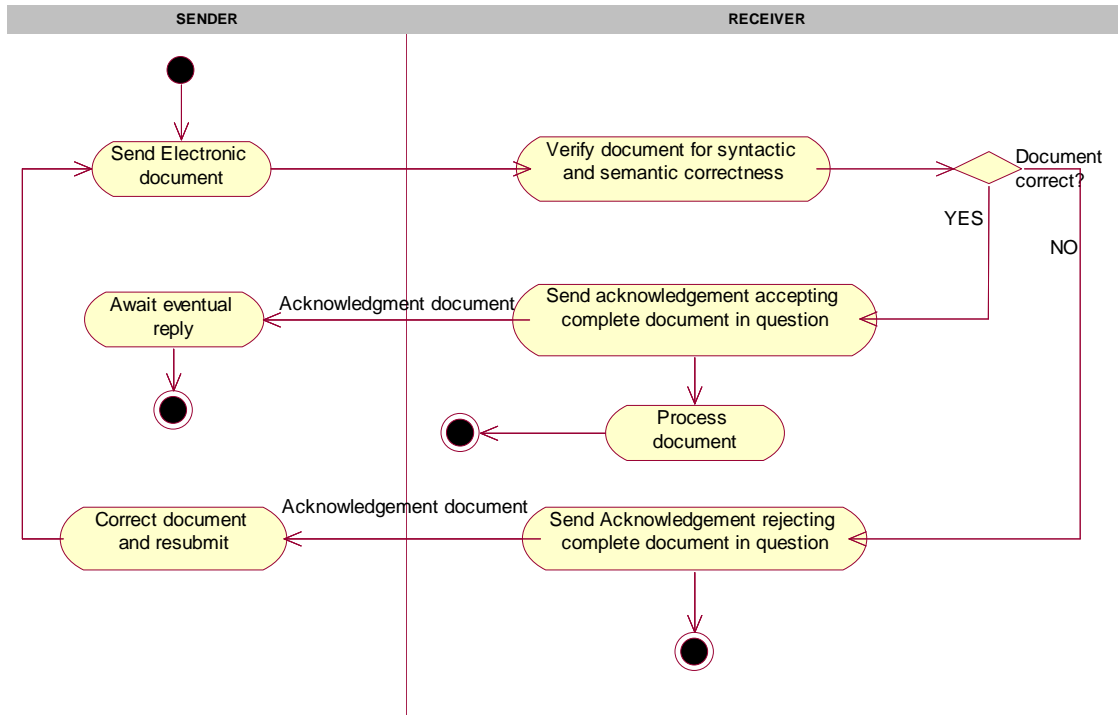


Figure 11: Acknowledgement process

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.

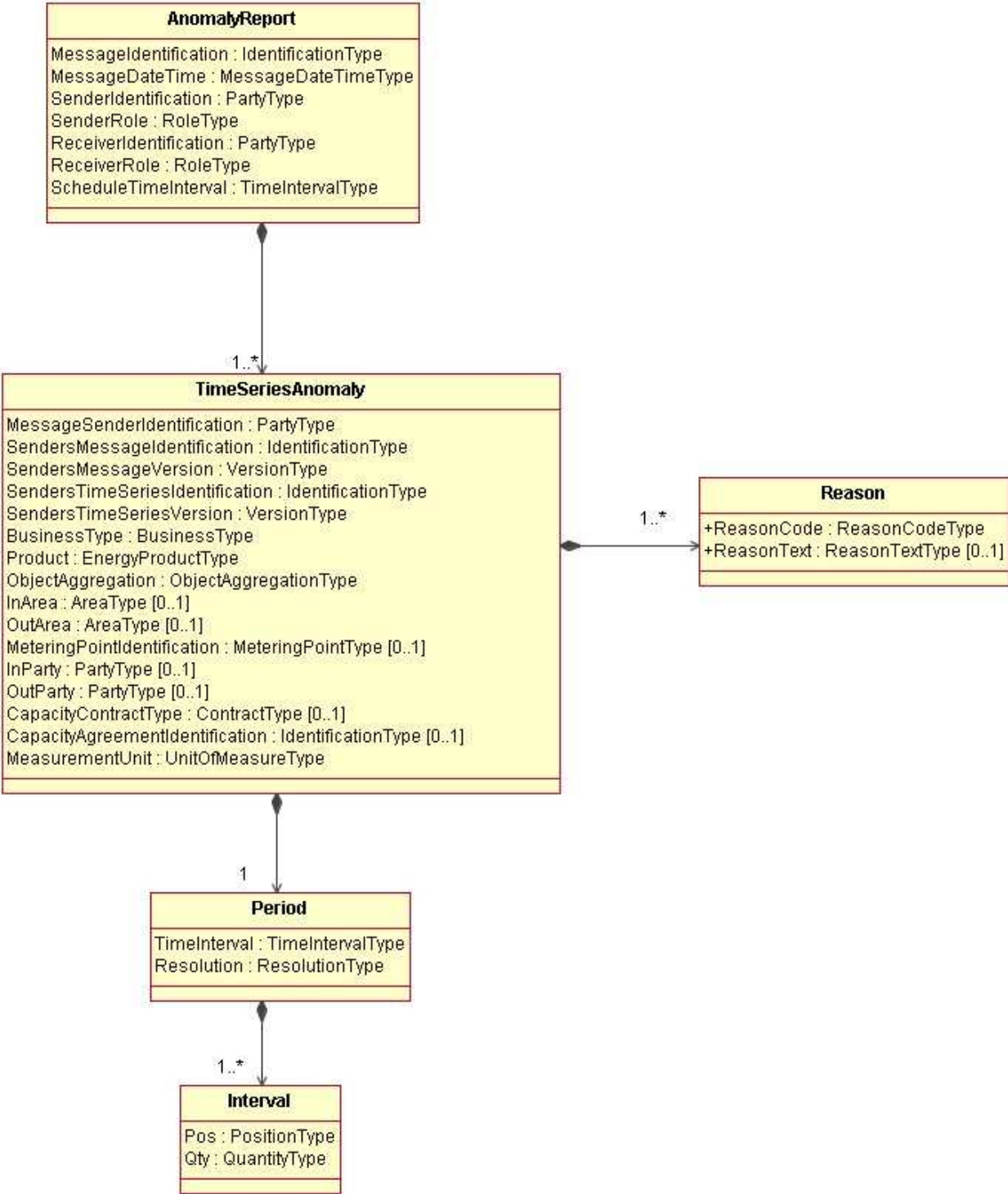
A document that has an error in it which necessitates the generation of an application acknowledgement shall require the transmission of an ETSO Acknowledgement document that completely or partially rejects the document in question.

Note: The Acknowledgement document should be at least from version 4.0. It can be downloaded from the ETSO TF EDI page on the ETSO website (www.etsa-net.org/activities/edi/index.asp).

811 7. ANOMALY REPORT IMPLEMENTATION

812 7.1 Information model

813



814

815

Figure 12: The Anomaly report

816 7.2 Rules governing the anomaly report class

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

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

825 7.2.1 Message Identification

ACTION	DESCRIPTION
Definition of element	Unique identification of the anomaly report that is sent to involved parties in phase 2 of the schedule process.
Description	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.
Size	An anomaly report identification may not exceed 35 alphanumeric characters.
Applicability	This information is mandatory.
Dependence requirements	None.

826 7.2.2 Message Date And Time

ACTION	DESCRIPTION
Definition of element	Date and time of transmission of the anomaly 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.

827 **7.2.3 Sender Identification – Coding Scheme**

ACTION	DESCRIPTION
Definition of element	Identification of the party who is sending the anomaly 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. Refer to ETSO Code list document for the valid list of codes.</p>
Size	<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>
Applicability	This information is mandatory.
Dependence requirements	None.

828 **7.2.4 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>Refer to ETSO Code list document for the valid list of codes.</p>
Size	The maximum length of a sender role is 3 alphanumeric characters.
Applicability	This information is mandatory.
Dependence requirements	None.

829 **7.2.5 Receiver Identification – Coding Scheme**

ACTION	DESCRIPTION
Definition of element	Identification of the party who is receiving the anomaly report.
Description	<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. Refer to ETSO Code list document for the valid list of codes.</p>
Size	<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>
Applicability	This information is mandatory.
Dependence requirements	None.

830 **7.2.6 Receiver Role**

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

831 **7.2.7 Schedule time interval**

ACTION	DESCRIPTION
Definition of element	The start and end date and time of the schedule period covered by the anomaly report.
Description	This information provides the start and end date and time of the schedule period for which the anomaly report is being generated.
Size	The start and end date and time must be expressed in UTC as follows: YYYY-MM-DDTHH:MMZ/YYYY-MM-DDTHH:MMZ.
Applicability	This information is mandatory.
Dependence requirements	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
Definition of element	A code providing the status of the anomaly. Currently the following status's have been identified: <u>At the timeseries level</u> A09: Time series not matching A27: Cross border capacity exceeded A28: Counterpart time series missing A29: Counterpart time series quantity differences Refer to ETSO code list document for additional possible codes.
Description	The reason code provides the status of the anomaly. As many reason elements as necessary may be used.
Size	The maximum length of this information is 3 alphanumeric characters.
Applicability	This information is dependent.
Dependence requirements	This information is at the time series level to provide related explanatory information.

838 **7.3.2 Reason Text**

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

839 **7.4 Rules governing the Time Series anomaly class**

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

846 **7.4.1 Message Sender Identification – Coding Scheme**

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

847 **7.4.2 Senders Message Identification**

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

848 **7.4.3 Senders Message Version**

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

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

8. TIME SERIES CONFIRMATION REPORT IMPLEMENTATION

8.1 Information model

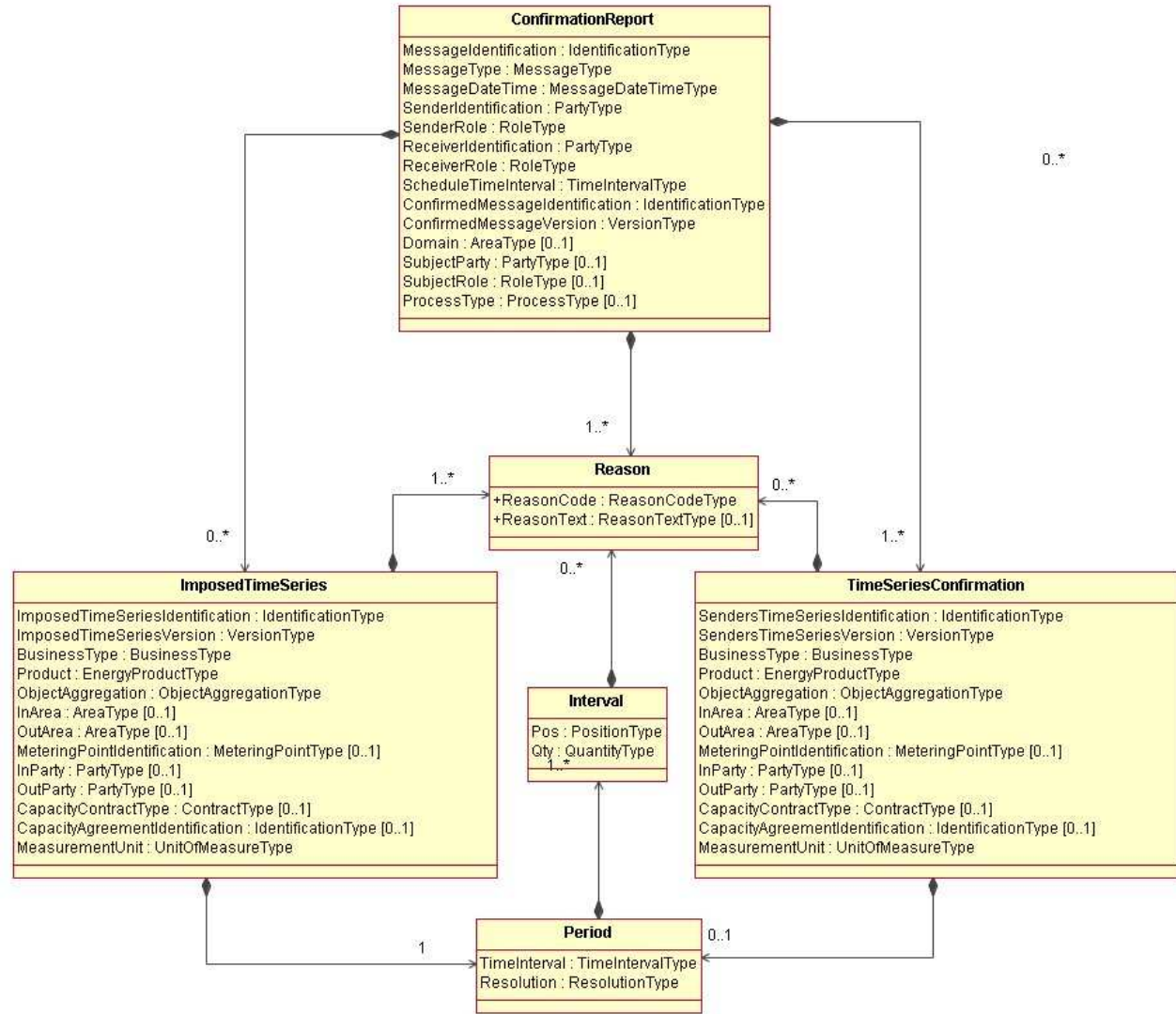


Figure 13: The Confirmation Report

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 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

ACTION	DESCRIPTION
Definition of element	Unique identification of the confirmation report that is sent to all involved parties after phase 3 of the schedule process.
Description	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.
Size	A confirmation report identification code may not exceed 35 alphanumeric characters.
Applicability	This information is mandatory.
Dependence requirements	None.

8.2.2 Message Type

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

882 **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.

883 **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. Refer to ETSO Code list document for the valid list of codes.</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.

884 **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>Refer to ETSO Code list document for the valid list of codes.</p>
Size	The maximum length of a sender role is 3 alphanumeric characters.
Applicability	This information is mandatory.
Dependence requirements	None.

885 **8.2.6 Receiver Identification – Coding Scheme**

ACTION	DESCRIPTION
Definition of element	Identification of the party who is receiving the confirmation report.
Description	<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. Refer to ETSO Code list document for the valid list of codes.</p>
Size	<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>
Applicability	This information is mandatory.
Dependence requirements	None.

886 **8.2.7 Receiver Role**

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

887 **8.2.8 Schedule time interval**

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

888 **8.2.9 Confirmed Message Identification**

ACTION	DESCRIPTION
Definition of element	The identification of the document that is being confirmed.
Description	The identification of the document being confirmed.that was sent by the party
Size	The maximum size of this information is 35 alphanumeric characters.
Applicability	This information is dependent.
Dependence requirements	The confirmed document identification is only provided where the party has submitted a schedule. This is not supplied in cases where there is uniquely an imposed time series due to non-reception from the party of a schedule.

889 **8.2.10 Confirmed Message Version**

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

890 **8.2.11 Domain - codingScheme**

ACTION	DESCRIPTION
Definition of element	The domain covered within the document being confirmed.
Description	<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. Refer to ETSO Code list document for the valid list of codes.</p>
Size	<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>
Applicability	This information is dependent.
Dependence requirements	The Domain attribute shall be the same as that of the Schedule Message when defined there.

891 **8.2.12 Subject Party – codingScheme**

ACTION	DESCRIPTION
Definition of element	The Party covered within the document being confirmed.
Description	<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. Refer to ETSO Code list document for the valid list of codes.</p>
Size	<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>
Applicability	This information is dependent.
Dependence requirements	The SubjectParty attribute shall be the same as that of the Schedule Message when defined there.

892 **8.2.13 Subject Role**

ACTION	DESCRIPTION
Definition of element	The Role of the Subject Party covered within the document being confirmed.
Description	Where the subject party is described then the subjectrole must be used to describe the role of the party Refer to ETSO Code list document for the valid list of codes.
Size	The maximum length of this information is 3 alphanumeric characters.
Applicability	This information is dependent.
Dependence requirements	The Subject Role attribute shall be the same as that of the Schedule Message when defined there.

893 **8.2.14 Process Type**

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

894 **8.3 Rules governing the Reason class**

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

897 1. At the header level to identify that all the schedules have been accepted, partially
898 accepted or rejected

899 2. At the time series level to identify where differences have occurred.

900 3. At the interval level to indicate where quantities have been increased, decreased, or
901 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 A63	M Blank, A43, A44 or A45
A08	M	M	A20	

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

904 **8.3.1 Reason code**

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

905 **8.3.2 Reason Text**

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

906 **8.4 Rules governing the Time Series confirmation class**

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

911 The attributes Senders Time Series Identification, Senders Time Series Version,
912 BusinessType, Product, Object Aggregation, In Area, Out Area, Meteringpoint
913 Identification, In Party, Out Party, Capacity Contract Type, Capacity Agreement
914 Identification and Measurement Unit contain the identical values of the time series in the
915 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
Definition of element	The identification of the imposed time series assigned by the system operator.
Description	The identification of the time series imposed by the system operator on the market participant.
Size	The maximum size of this information is 35 alphanumeric characters.
Applicability	This information is mandatory.
Dependence requirements	None.

8.5.2 Imposed Time Series Version

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

928 **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. Refer to ETSO code list document for the valid list of codes.
Size	The maximum length of the time series type is 3 alphanumeric characters.
Applicability	This information is mandatory.
Dependence requirements	None.

929 **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. Refer to ETSO code list document for the valid list of codes.
Size	The maximum length of this information is 13 numeric characters.
Applicability	This information is mandatory.
Dependence requirements	None.

930 **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. Refer to ETSO code list document for the valid list of codes.
Size	The maximum length of the time series type is 3 alphanumeric characters.
Applicability	This information is mandatory.
Dependence requirements	None.

931 **8.5.6 In Area – Coding Scheme**

ACTION	DESCRIPTION
Definition of element	The in area of the imposed time series.
Description	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.
Size	<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. Refer to ETSO code list document for the valid list of codes.</p>
Applicability	This information is dependent.
Dependence requirements	Refer to the matrix in 5.2.1 for dependency requirements.

932 **8.5.7 Out Area – Coding Scheme**

ACTION	DESCRIPTION
Definition of element	The out area of the imposed time series.
Description	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.
Size	<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. Refer to ETSO code list document for the valid list of codes.</p>
Applicability	This information is dependent.
Dependence requirements	Refer to the matrix in 5.2.1 for dependency requirements.

933 **8.5.8 Metering Point Identification – Coding Scheme**

ACTION	DESCRIPTION
Definition of element	The identification of the metering point of the imposed time series .
Description	<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. Refer to ETSO code list document for the valid list of codes.</p>
Size	<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>
Applicability	This information is dependent.
Dependence requirements	Refer to the matrix in 5.2.1 for dependency requirements.

934 **8.5.9 In party – Coding Scheme**

ACTION	DESCRIPTION
Definition of element	The identification of the in party of the imposed time series.
Description	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.
Size	<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. Refer to ETSO code list document for the valid list of codes.</p>
Applicability	This information is dependent.
Dependence requirements	Refer to the matrix in 5.2.1 for dependency requirements.

935 **8.5.10 Out party – Coding Scheme**

ACTION	DESCRIPTION
Definition of element	The identification of the out party of the imposed time series.
Description	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.
Size	<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. Refer to ETSO code list document for the valid list of codes.</p>
Applicability	This information is dependent.
Dependence requirements	Refer to the matrix in 5.2.1 for dependency requirements.

936 **8.5.11 Capacity Contract Type**

ACTION	DESCRIPTION
Definition of element	The capacity contract type of the imposed time series.
Description	<p>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. Refer to ETSO code list document for the valid list of codes.</p>
Size	The maximum length of this information is 3 alphanumeric characters.
Applicability	This information is dependent.
Dependence requirements	Refer to the matrix in 5.2.1 for dependency requirements.

937 **8.5.12 Capacity agreement identification.**

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

938 **8.5.13 Measurement Unit**

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

939 **8.6 Rules governing the Period class**

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

944 **8.7 Rules governing the Interval class**

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

947 **8.7.1 Pos**

ACTION	DESCRIPTION
Definition of element	The relative position of a period within the time interval defined in the Period class.
Description	The position that has been accepted or imposed.
Size	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.
Applicability	This information is mandatory.
Dependence requirements	None.

948 **8.7.2 Qty**

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

950

951

952

9. XML DEFINITIONS

9.1 Schedule Document

9.1.1 Schedule Document - Schema Structure

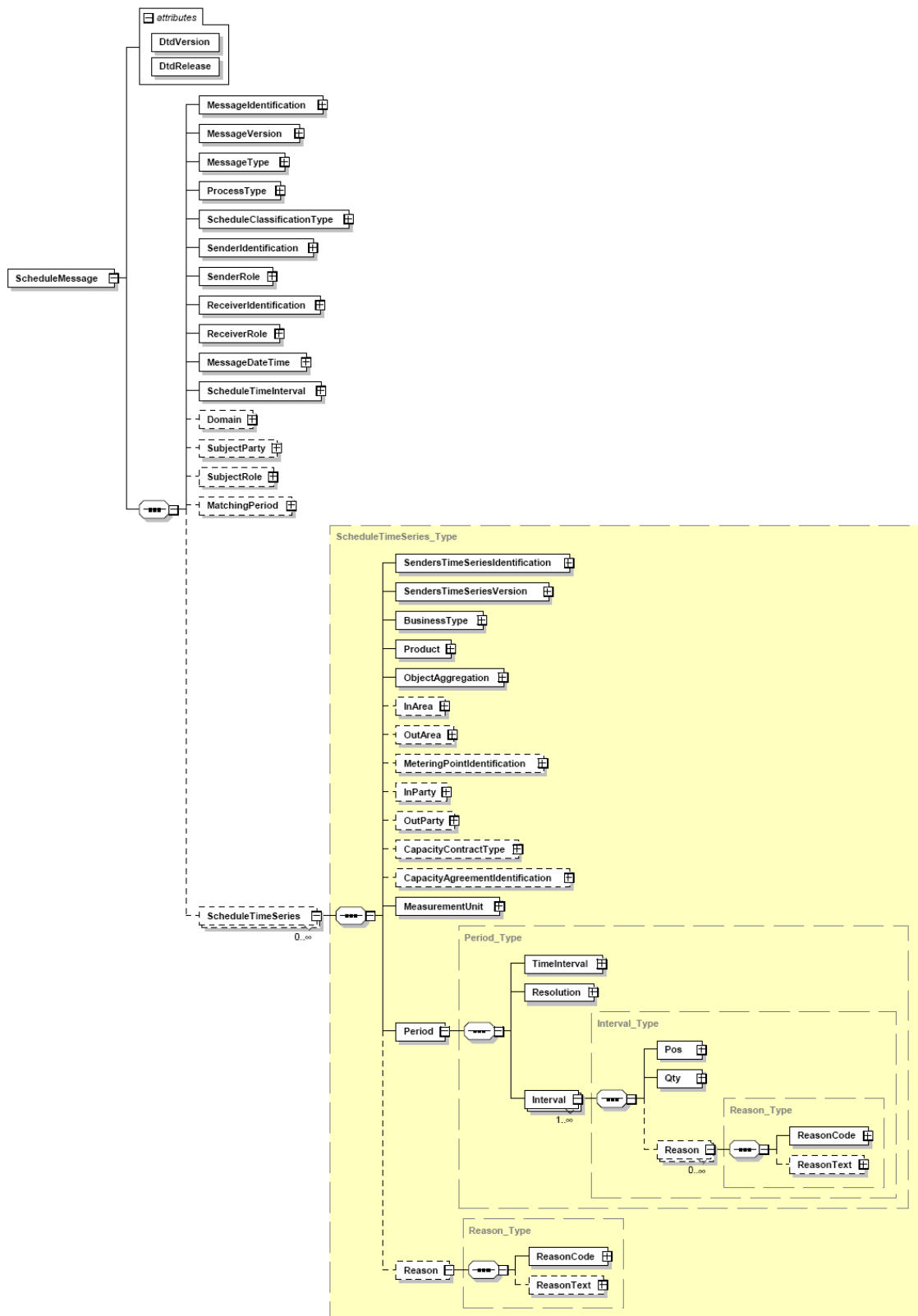


Figure 14: The Schedule Document schema model

9.1.2 Schedule Document – Schema Definition

```
<?xml version="1.0" encoding="UTF-8"?>
<!-- edited with XMLSpy v2008 sp1 (http://www.altova.com) by Michael Conroy (TEDIOR SARL) -->
<xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:ecc="etso-core-cmpts.xsd"
elementFormDefault="qualified" attributeFormDefault="unqualified" ecc:VersionRelease="3.3">
  <xsd:import namespace="etso-core-cmpts.xsd" schemaLocation="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:sequence>
    </xsd:complexType>
  </xsd:element>
```

```

1026         <xsd:element name="Domain" type="ecc:AreaType" minOccurs="0">
1027             <xsd:annotation>
1028                 <xsd:documentation/>
1029             </xsd:annotation>
1030         </xsd:element>
1031         <xsd:element name="SubjectParty" type="ecc:PartyType" minOccurs="0">
1032             <xsd:annotation>
1033                 <xsd:documentation/>
1034             </xsd:annotation>
1035         </xsd:element>
1036         <xsd:element name="SubjectRole" type="ecc:RoleType" minOccurs="0">
1037             <xsd:annotation>
1038                 <xsd:documentation/>
1039             </xsd:annotation>
1040         </xsd:element>
1041         <xsd:element name="MatchingPeriod" type="ecc:TimeIntervalType" minOccurs="0">
1042             <xsd:annotation>
1043                 <xsd:documentation/>
1044             </xsd:annotation>
1045         </xsd:element>
1046         <xsd:element name="ScheduleTimeSeries" type="ScheduleTimeSeries_Type"
1047 minOccurs="0" maxOccurs="unbounded"/>
1048     </xsd:sequence>
1049     <xsd:attribute name="DtdVersion" type="xsd:string" use="required"/>
1050     <xsd:attribute name="DtdRelease" type="xsd:string" use="required"/>
1051 </xsd:complexType>
1052 </xsd:element>
1053 <xsd:complexType name="ScheduleTimeSeries_Type">
1054     <xsd:annotation>
1055         <xsd:documentation/>
1056     </xsd:annotation>
1057     <xsd:sequence>
1058         <xsd:element name="SendersTimeSeriesIdentification" type="ecc:IdentificationType">
1059             <xsd:annotation>
1060                 <xsd:documentation/>
1061             </xsd:annotation>
1062         </xsd:element>
1063         <xsd:element name="SendersTimeSeriesVersion" type="ecc:VersionType">
1064             <xsd:annotation>
1065                 <xsd:documentation/>
1066             </xsd:annotation>
1067         </xsd:element>
1068         <xsd:element name="BusinessType" type="ecc:BusinessType">
1069             <xsd:annotation>
1070                 <xsd:documentation/>
1071             </xsd:annotation>
1072         </xsd:element>
1073         <xsd:element name="Product" type="ecc:EnergyProductType">
1074             <xsd:annotation>
1075                 <xsd:documentation/>
1076             </xsd:annotation>
1077         </xsd:element>
1078         <xsd:element name="ObjectAggregation" type="ecc:ObjectAggregationType">
1079             <xsd:annotation>
1080                 <xsd:documentation/>
1081             </xsd:annotation>
1082         </xsd:element>
1083         <xsd:element name="InArea" type="ecc:AreaType" minOccurs="0">
1084             <xsd:annotation>
1085                 <xsd:documentation/>
1086             </xsd:annotation>
1087         </xsd:element>
1088         <xsd:element name="OutArea" type="ecc:AreaType" minOccurs="0">
1089             <xsd:annotation>
1090                 <xsd:documentation/>
1091             </xsd:annotation>
1092         </xsd:element>
1093         <xsd:element name="MeteringPointIdentification" type="ecc:MeteringPointType" minOccurs="0">
1094             <xsd:annotation>
1095                 <xsd:documentation/>
1096             </xsd:annotation>
1097         </xsd:element>
1098         <xsd:element name="InParty" type="ecc:PartyType" minOccurs="0">

```

```

1099         <xsd:annotation>
1100             <xsd:documentation/>
1101         </xsd:annotation>
1102     </xsd:element>
1103     <xsd:element name="OutParty" type="ecc:PartyType" minOccurs="0">
1104         <xsd:annotation>
1105             <xsd:documentation/>
1106         </xsd:annotation>
1107     </xsd:element>
1108     <xsd:element name="CapacityContractType" type="ecc:ContractType" minOccurs="0">
1109         <xsd:annotation>
1110             <xsd:documentation/>
1111         </xsd:annotation>
1112     </xsd:element>
1113     <xsd:element name="CapacityAgreementIdentification" type="ecc:IdentificationType"
1114 minOccurs="0">
1115         <xsd:annotation>
1116             <xsd:documentation/>
1117         </xsd:annotation>
1118     </xsd:element>
1119     <xsd:element name="MeasurementUnit" type="ecc:UnitOfMeasureType">
1120         <xsd:annotation>
1121             <xsd:documentation/>
1122         </xsd:annotation>
1123     </xsd:element>
1124     <xsd:element name="Period" type="Period_Type"/>
1125     <xsd:element name="Reason" type="Reason_Type" minOccurs="0"/>
1126 </xsd:sequence>
1127 </xsd:complexType>
1128 <xsd:complexType name="Period_Type">
1129     <xsd:annotation>
1130         <xsd:documentation/>
1131     </xsd:annotation>
1132     <xsd:sequence>
1133         <xsd:element name="TimeInterval" type="ecc:TimeIntervalType">
1134             <xsd:annotation>
1135                 <xsd:documentation/>
1136             </xsd:annotation>
1137         </xsd:element>
1138         <xsd:element name="Resolution" type="ecc:ResolutionType">
1139             <xsd:annotation>
1140                 <xsd:documentation/>
1141             </xsd:annotation>
1142         </xsd:element>
1143         <xsd:element name="Interval" type="Interval_Type" maxOccurs="unbounded"/>
1144     </xsd:sequence>
1145 </xsd:complexType>
1146 <xsd:complexType name="Interval_Type">
1147     <xsd:annotation>
1148         <xsd:documentation/>
1149     </xsd:annotation>
1150     <xsd:sequence>
1151         <xsd:element name="Pos" type="ecc:PositionType">
1152             <xsd:annotation>
1153                 <xsd:documentation/>
1154             </xsd:annotation>
1155         </xsd:element>
1156         <xsd:element name="Qty" type="ecc:QuantityType">
1157             <xsd:annotation>
1158                 <xsd:documentation/>
1159             </xsd:annotation>
1160         </xsd:element>
1161         <xsd:element name="Reason" type="Reason_Type" minOccurs="0" maxOccurs="unbounded"/>
1162     </xsd:sequence>
1163 </xsd:complexType>
1164 <xsd:complexType name="Reason_Type">
1165     <xsd:annotation>
1166         <xsd:documentation/>
1167     </xsd:annotation>
1168     <xsd:sequence>
1169         <xsd:element name="ReasonCode" type="ecc:ReasonCodeType">
1170             <xsd:annotation>
1171                 <xsd:documentation/>

```

```

1172         </xsd:annotation>
1173     </xsd:element>
1174     <xsd:element name="ReasonText" type="ecc:ReasonTextType" minOccurs="0">
1175         <xsd:annotation>
1176             <xsd:documentation/>
1177         </xsd:annotation>
1178     </xsd:element>
1179 </xsd:sequence>
1180 </xsd:complexType>
1181 </xsd:schema>

```

1182 9.1.3 Schedule document - Data instance

```

1183 <?xml version="1.0" encoding="UTF-8"?>
1184 <?xml-stylesheet type="text/xsl" href="schedule-document.xsl"?>
1185 <ScheduleMessage DtdVersion="3" DtdRelease="0">
1186     <MessageIdentification v="1234"/>
1187     <MessageVersion v="1"/>
1188     <MessageType v="A01"/>
1189     <ProcessType v="A01"/>
1190     <ScheduleClassificationType v="A01"/>
1191     <SenderIdIdentification v="5790000432752" codingScheme="A10"/>
1192     <SenderRole v="A01"/>
1193     <ReceiverIdentification v="10X000000000RTEM" codingScheme="A01"/>
1194     <ReceiverRole v="A04"/>
1195     <MessageDateTime v="2001-06-02T09:00:00Z"/>
1196     <ScheduleTimeInterval v="2001-06-02T22:00Z/2001-06-02T23:00Z"/>
1197     <Domain v="12Y000002347651H"/>
1198     <SubjectParty v="11X000000100741R"/>
1199     <SubjectRole v="A01"/>
1200     <MatchingPeriod v="2001-06-02T22:00Z/2001-06-02T23:00Z"/>
1201     <ScheduleTimeSeries>
1202         <SendersTimeSeriesIdentification v="TS0001"/>
1203         <SendersTimeSeriesVersion v="1"/>
1204         <BusinessType v="A03"/>
1205         <Product v="8716867000016"/>
1206         <ObjectAggregation v="A01"/>
1207         <InArea v="12Y000002347651H" codingScheme="A01"/>
1208         <OutArea v="12YRWENET-----Q" codingScheme="A01"/>
1209         <InParty v="11X000000100741R" codingScheme="A01"/>
1210         <OutParty v="11X000000340533X" codingScheme="A01"/>
1211         <CapacityContractType v="A01"/>
1212         <CapacityAgreementIdentification v="R567">
1213             <MeasurementUnit v="MAW"/>
1214             <Period>
1215                 <TimeInterval v="2001-06-02T22:00Z/2001-06-02T23:00Z"/>
1216                 <Resolution v="PT15M"/>
1217             </Interval>
1218             <Interval>
1219                 <Pos v="1"/>
1220                 <Qty v="45"/>
1221             </Interval>
1222             <Interval>
1223                 <Pos v="2"/>
1224                 <Qty v="40"/>
1225             </Interval>
1226             <Interval>
1227                 <Pos v="3"/>
1228                 <Qty v="45"/>
1229             </Interval>
1230             <Interval>
1231                 <Pos v="4"/>
1232                 <Qty v="45"/>
1233             </Interval>
1234         </Period>
1235     </ScheduleTimeSeries>
1236 </ScheduleMessage>

```

1236 **Note:** This example, for the sake of space, is only for the duration of one hour.

1237

9.2 Anomaly Report

1238

9.2.1 Anomaly Report – Schema Structure

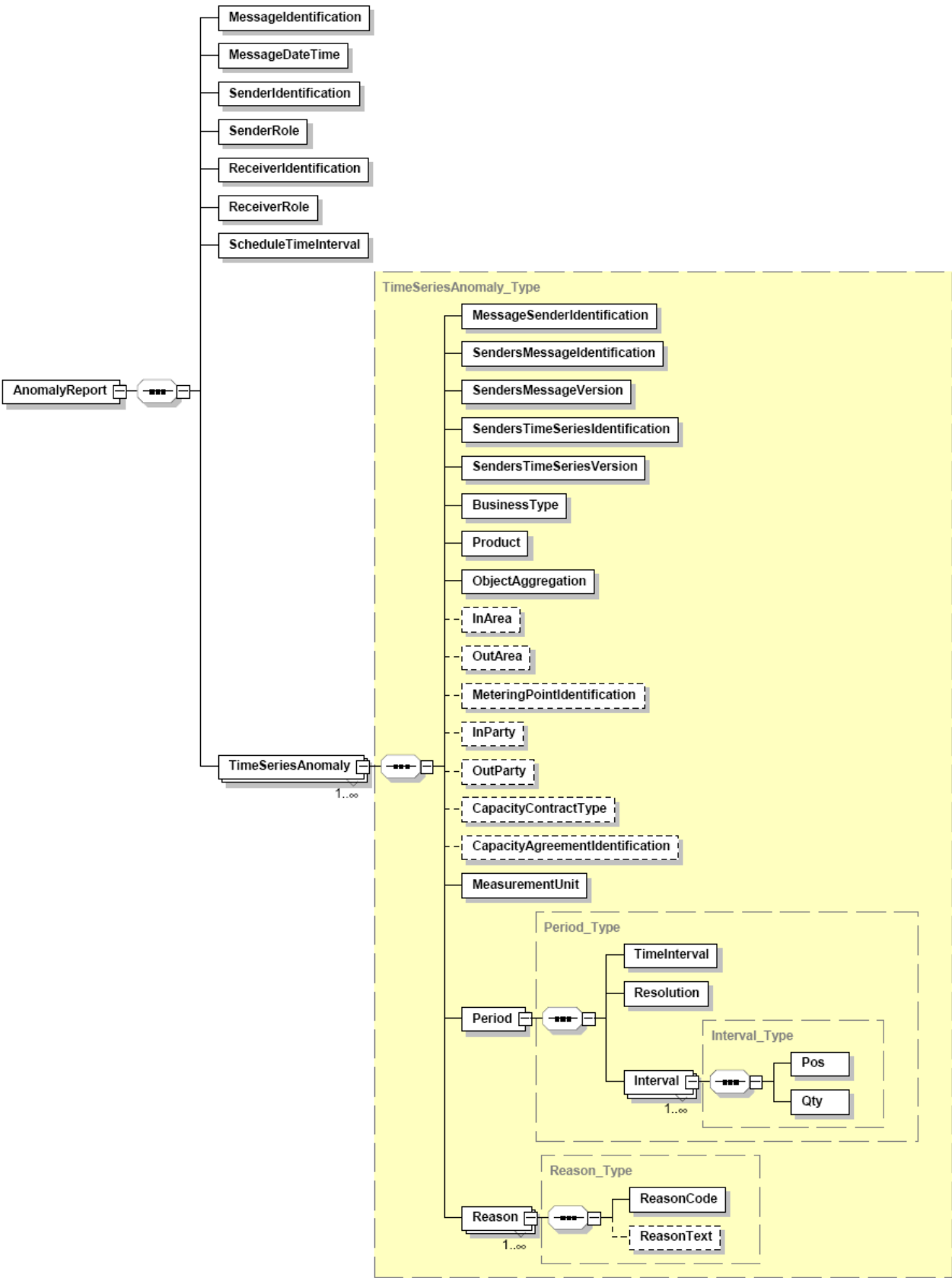


Figure 15: The Anamoly Report schema model

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>
```

```

1312 <xsd:element name="SendersMessageVersion" type="ecc:VersionType">
1313   <xsd:annotation>
1314     <xsd:documentation/>
1315   </xsd:annotation>
1316 </xsd:element>
1317 <xsd:element name="SendersTimeSeriesIdentification" type="ecc:IdentificationType">
1318   <xsd:annotation>
1319     <xsd:documentation/>
1320   </xsd:annotation>
1321 </xsd:element>
1322 <xsd:element name="SendersTimeSeriesVersion" type="ecc:VersionType">
1323   <xsd:annotation>
1324     <xsd:documentation/>
1325   </xsd:annotation>
1326 </xsd:element>
1327 <xsd:element name="BusinessType" type="ecc:BusinessType">
1328   <xsd:annotation>
1329     <xsd:documentation/>
1330   </xsd:annotation>
1331 </xsd:element>
1332 <xsd:element name="Product" type="ecc:EnergyProductType">
1333   <xsd:annotation>
1334     <xsd:documentation/>
1335   </xsd:annotation>
1336 </xsd:element>
1337 <xsd:element name="ObjectAggregation" type="ecc:ObjectAggregationType">
1338   <xsd:annotation>
1339     <xsd:documentation/>
1340   </xsd:annotation>
1341 </xsd:element>
1342 <xsd:element name="InArea" type="ecc:AreaType" minOccurs="0">
1343   <xsd:annotation>
1344     <xsd:documentation/>
1345   </xsd:annotation>
1346 </xsd:element>
1347 <xsd:element name="OutArea" type="ecc:AreaType" minOccurs="0">
1348   <xsd:annotation>
1349     <xsd:documentation/>
1350   </xsd:annotation>
1351 </xsd:element>
1352 <xsd:element name="MeteringPointIdentification" type="ecc:MeteringPointType" minOccurs="0">
1353   <xsd:annotation>
1354     <xsd:documentation/>
1355   </xsd:annotation>
1356 </xsd:element>
1357 <xsd:element name="InParty" type="ecc:PartyType" minOccurs="0">
1358   <xsd:annotation>
1359     <xsd:documentation/>
1360   </xsd:annotation>
1361 </xsd:element>
1362 <xsd:element name="OutParty" type="ecc:PartyType" minOccurs="0">
1363   <xsd:annotation>
1364     <xsd:documentation/>
1365   </xsd:annotation>
1366 </xsd:element>
1367 <xsd:element name="CapacityContractType" type="ecc:ContractType" minOccurs="0">
1368   <xsd:annotation>
1369     <xsd:documentation/>
1370   </xsd:annotation>
1371 </xsd:element>
1372 <xsd:element name="CapacityAgreementIdentification" type="ecc:IdentificationType" minOccurs="0">
1373   <xsd:annotation>
1374     <xsd:documentation/>
1375   </xsd:annotation>
1376 </xsd:element>
1377 <xsd:element name="MeasurementUnit" type="ecc:UnitOfMeasureType">
1378   <xsd:annotation>
1379     <xsd:documentation/>
1380   </xsd:annotation>
1381 </xsd:element>
1382 <xsd:element name="Period" type="Period_Type"/>
1383 <xsd:element name="Reason" type="Reason_Type" maxOccurs="unbounded"/>
1384 </xsd:sequence>

```

```

1385 </xsd:complexType>
1386 <xsd:complexType name="Period_Type">
1387   <xsd:annotation>
1388     <xsd:documentation/>
1389   </xsd:annotation>
1390   <xsd:sequence>
1391     <xsd:element name="TimeInterval" type="ecc:TimeIntervalType">
1392       <xsd:annotation>
1393         <xsd:documentation/>
1394       </xsd:annotation>
1395     </xsd:element>
1396     <xsd:element name="Resolution" type="ecc:ResolutionType">
1397       <xsd:annotation>
1398         <xsd:documentation/>
1399       </xsd:annotation>
1400     </xsd:element>
1401     <xsd:element name="Interval" type="Interval_Type" maxOccurs="unbounded"/>
1402   </xsd:sequence>
1403 </xsd:complexType>
1404 <xsd:complexType name="Interval_Type">
1405   <xsd:annotation>
1406     <xsd:documentation/>
1407   </xsd:annotation>
1408   <xsd:sequence>
1409     <xsd:element name="Pos" type="ecc:PositionType">
1410       <xsd:annotation>
1411         <xsd:documentation/>
1412       </xsd:annotation>
1413     </xsd:element>
1414     <xsd:element name="Qty" type="ecc:QuantityType">
1415       <xsd:annotation>
1416         <xsd:documentation/>
1417       </xsd:annotation>
1418     </xsd:element>
1419   </xsd:sequence>
1420 </xsd:complexType>
1421 <xsd:complexType name="Reason_Type">
1422   <xsd:annotation>
1423     <xsd:documentation/>
1424   </xsd:annotation>
1425   <xsd:sequence>
1426     <xsd:element name="ReasonCode" type="ecc:ReasonCodeType">
1427       <xsd:annotation>
1428         <xsd:documentation/>
1429       </xsd:annotation>
1430     </xsd:element>
1431     <xsd:element name="ReasonText" type="ecc:ReasonTextType" minOccurs="0">
1432       <xsd:annotation>
1433         <xsd:documentation/>
1434       </xsd:annotation>
1435     </xsd:element>
1436   </xsd:sequence>
1437 </xsd:complexType>
1438 </xsd:schema>

```

1439 9.2.3 Anomaly Report – Data instance

```

1440 <?xml version="1.0" encoding="UTF-8"?>
1441 <?xml-stylesheet type="text/xsl" href="anomaly-report.xsl"?>
1442 <AnomalyReport DtdVersion="3" DtdRelease="0">
1443   <MessageIdentification v="1234QRP"/>
1444   <MessageDateTime v="2001-06-02T09:00:00Z"/>
1445   <SenderIdIdentification v="5790000432752" codingScheme="A10"/>
1446   <SenderRole v="A01"/>
1447   <ReceiverIdentification v="10X000000000RTEM" codingScheme="A01"/>
1448   <ReceiverRole v="A01"/>
1449   <ScheduleTimeInterval v="2001-06-02T22:00Z/2001-06-02T23:00Z"/>
1450   <Domain v="12Y000002347651H"/>
1451   <TimeSeriesAnomaly>
1452     <MessageSenderIdIdentification v="5790000432752" codingScheme="A10"/>
1453     <SendersMessageIdentification v="1234"/>
1454     <SendersMessageVersion v="1"/>
1455     <SendersTimeSeriesIdentification v="TS0001"/>

```

```

1456      <SendersTimeSeriesVersion v="1"/>
1457      <BusinessType v="A03"/>
1458      <Product v="8716867000016"/>
1459      <ObjectAggregation v="A01"/>
1460      <InArea v="12Y000002347651H" codingScheme="A01"/>
1461      <OutArea v="12YRWENET-----Q" codingScheme="A01"/>
1462      <InParty v="11X000000100741R" codingScheme="A01"/>
1463      <OutParty v="11X000000340533X" codingScheme="A01"/>
1464      <CapacityContractType v="A01"/>
1465      <CapacityAgreementIdentification v="R567">
1466      <MeasurementUnit v="MAW"/>
1467      <Period>
1468          <TimeInterval v="2001-06-02T22:00Z/2001-06-02T23:00Z"/>
1469          <Resolution v="PT15M"/>
1470          <Interval>
1471              <Pos v="1"/>
1472              <Qty v="40"/>
1473          </Interval>
1474          <Interval>
1475              <Pos v="2"/>
1476              <Qty v="45"/>
1477          </Interval>
1478          <Interval>
1479              <Pos v="3"/>
1480              <Qty v="45"/>
1481          </Interval>
1482          <Interval>
1483              <Pos v="4"/>
1484              <Qty v="45"/>
1485          </Interval>
1486      </Period>
1487      <Reason>
1488          <ReasonCode v="A28"/>
1489      </Reason>
1490  </TimeSeriesAnomaly>
1491 </AnomalyReport>

```

1492 9.3 Confirmation report

1493 9.3.1 Confirmation report - Schema Structure

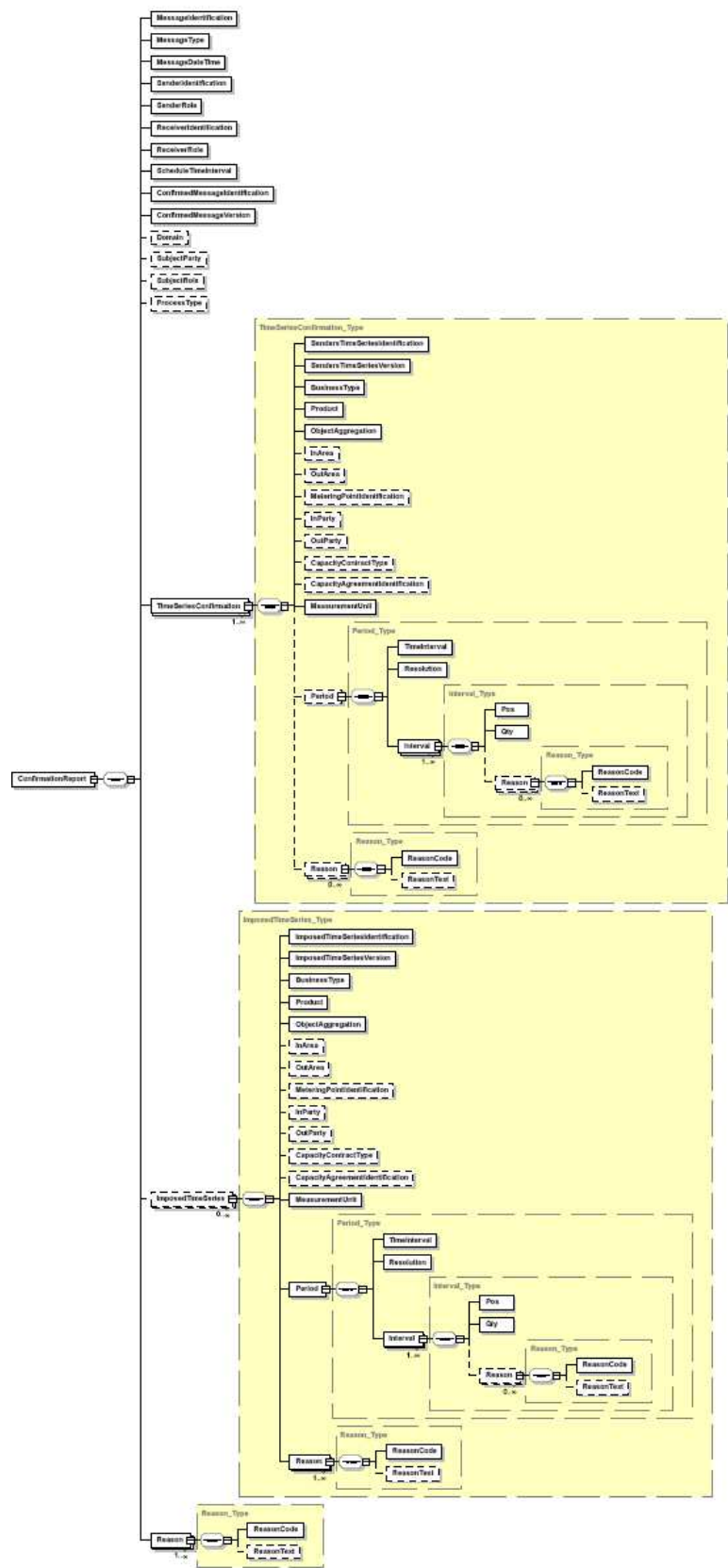


Figure 16: The confirmation Report schema model

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="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="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>
```

```

1568         <xsd:documentation/>
1569     </xsd:annotation>
1570 </xsd:element>
1571 <xsd:element name="SubjectRole" type="ecc:RoleType" minOccurs="0">
1572     <xsd:annotation>
1573         <xsd:documentation/>
1574     </xsd:annotation>
1575 </xsd:element>
1576 <xsd:element name="ProcessType" type="ecc:ProcessType" minOccurs="0">
1577     <xsd:annotation>
1578         <xsd:documentation/>
1579     </xsd:annotation>
1580 </xsd:element>
1581 <xsd:element name="TimeSeriesConfirmation" type="TimeSeriesConfirmation_Type"
1582 maxOccurs="unbounded"/>
1583 <xsd:element name="ImposedTimeSeries" type="ImposedTimeSeries_Type" minOccurs="0"
1584 maxOccurs="unbounded"/>
1585 <xsd:element name="Reason" type="Reason_Type" maxOccurs="unbounded"/>
1586 </xsd:sequence>
1587 <xsd:attribute name="DtdVersion" type="xsd:string" use="required"/>
1588 <xsd:attribute name="DtdRelease" type="xsd:string" use="required"/>
1589 </xsd:complexType>
1590 </xsd:element>
1591 <xsd:complexType name="TimeSeriesConfirmation_Type">
1592     <xsd:annotation>
1593         <xsd:documentation/>
1594     </xsd:annotation>
1595     <xsd:sequence>
1596         <xsd:element name="SendersTimeSeriesIdentification" type="ecc:IdentificationType">
1597             <xsd:annotation>
1598                 <xsd:documentation/>
1599             </xsd:annotation>
1600         </xsd:element>
1601         <xsd:element name="SendersTimeSeriesVersion" type="ecc:VersionType">
1602             <xsd:annotation>
1603                 <xsd:documentation/>
1604             </xsd:annotation>
1605         </xsd:element>
1606         <xsd:element name="BusinessType" type="ecc:BusinessType">
1607             <xsd:annotation>
1608                 <xsd:documentation/>
1609             </xsd:annotation>
1610         </xsd:element>
1611         <xsd:element name="Product" type="ecc:EnergyProductType">
1612             <xsd:annotation>
1613                 <xsd:documentation/>
1614             </xsd:annotation>
1615         </xsd:element>
1616         <xsd:element name="ObjectAggregation" type="ecc:ObjectAggregationType">
1617             <xsd:annotation>
1618                 <xsd:documentation/>
1619             </xsd:annotation>
1620         </xsd:element>
1621         <xsd:element name="InArea" type="ecc:AreaType" minOccurs="0">
1622             <xsd:annotation>
1623                 <xsd:documentation/>
1624             </xsd:annotation>
1625         </xsd:element>
1626         <xsd:element name="OutArea" type="ecc:AreaType" minOccurs="0">
1627             <xsd:annotation>
1628                 <xsd:documentation/>
1629             </xsd:annotation>
1630         </xsd:element>
1631         <xsd:element name="MeteringPointIdentification" type="ecc:MeteringPointType" minOccurs="0">
1632             <xsd:annotation>
1633                 <xsd:documentation/>
1634             </xsd:annotation>
1635         </xsd:element>
1636         <xsd:element name="InParty" type="ecc:PartyType" minOccurs="0">
1637             <xsd:annotation>
1638                 <xsd:documentation/>
1639             </xsd:annotation>
1640         </xsd:element>

```



```

1641 <xsd:element name="OutParty" type="ecc:PartyType" minOccurs="0">
1642 <xsd:annotation>
1643 <xsd:documentation/>
1644 </xsd:annotation>
1645 </xsd:element>
1646 <xsd:element name="CapacityContractType" type="ecc:ContractType" minOccurs="0">
1647 <xsd:annotation>
1648 <xsd:documentation/>
1649 </xsd:annotation>
1650 </xsd:element>
1651 <xsd:element name="CapacityAgreementIdentification" type="ecc:IdentificationType" minOccurs="0">
1652 <xsd:annotation>
1653 <xsd:documentation/>
1654 </xsd:annotation>
1655 </xsd:element>
1656 <xsd:element name="MeasurementUnit" type="ecc:UnitOfMeasureType">
1657 <xsd:annotation>
1658 <xsd:documentation/>
1659 </xsd:annotation>
1660 </xsd:element>
1661 <xsd:element name="Period" type="Period_Type" minOccurs="0"/>
1662 <xsd:element name="Reason" type="Reason_Type" minOccurs="0" maxOccurs="unbounded"/>
1663 </xsd:sequence>
1664 </xsd:complexType>
1665 <xsd:complexType name="Period_Type">
1666 <xsd:annotation>
1667 <xsd:documentation/>
1668 </xsd:annotation>
1669 <xsd:sequence>
1670 <xsd:element name="TimeInterval" type="ecc:TimeIntervalType">
1671 <xsd:annotation>
1672 <xsd:documentation/>
1673 </xsd:annotation>
1674 </xsd:element>
1675 <xsd:element name="Resolution" type="ecc:ResolutionType">
1676 <xsd:annotation>
1677 <xsd:documentation/>
1678 </xsd:annotation>
1679 </xsd:element>
1680 <xsd:element name="Interval" type="Interval_Type" maxOccurs="unbounded"/>
1681 </xsd:sequence>
1682 </xsd:complexType>
1683 <xsd:complexType name="Interval_Type">
1684 <xsd:annotation>
1685 <xsd:documentation/>
1686 </xsd:annotation>
1687 <xsd:sequence>
1688 <xsd:element name="Pos" type="ecc:PositionType">
1689 <xsd:annotation>
1690 <xsd:documentation/>
1691 </xsd:annotation>
1692 </xsd:element>
1693 <xsd:element name="Qty" type="ecc:QuantityType">
1694 <xsd:annotation>
1695 <xsd:documentation/>
1696 </xsd:annotation>
1697 </xsd:element>
1698 <xsd:element name="Reason" type="Reason_Type" minOccurs="0" maxOccurs="unbounded"/>
1699 </xsd:sequence>
1700 </xsd:complexType>
1701 <xsd:complexType name="Reason_Type">
1702 <xsd:annotation>
1703 <xsd:documentation/>
1704 </xsd:annotation>
1705 <xsd:sequence>
1706 <xsd:element name="ReasonCode" type="ecc:ReasonCodeType">
1707 <xsd:annotation>
1708 <xsd:documentation/>
1709 </xsd:annotation>
1710 </xsd:element>
1711 <xsd:element name="ReasonText" type="ecc:ReasonTextType" minOccurs="0">
1712 <xsd:annotation>
1713 <xsd:documentation/>

```



```

1714         </xsd:annotation>
1715     </xsd:element>
1716 </xsd:sequence>
1717 </xsd:complexType>
1718 <xsd:complexType name="ImposedTimeSeries_Type">
1719     <xsd:annotation>
1720         <xsd:documentation/>
1721     </xsd:annotation>
1722     <xsd:sequence>
1723         <xsd:element name="ImposedTimeSeriesIdentification" type="ecc:IdentificationType">
1724             <xsd:annotation>
1725                 <xsd:documentation/>
1726             </xsd:annotation>
1727         </xsd:element>
1728         <xsd:element name="ImposedTimeSeriesVersion" type="ecc:VersionType">
1729             <xsd:annotation>
1730                 <xsd:documentation/>
1731             </xsd:annotation>
1732         </xsd:element>
1733         <xsd:element name="BusinessType" type="ecc:BusinessType">
1734             <xsd:annotation>
1735                 <xsd:documentation/>
1736             </xsd:annotation>
1737         </xsd:element>
1738         <xsd:element name="Product" type="ecc:EnergyProductType">
1739             <xsd:annotation>
1740                 <xsd:documentation/>
1741             </xsd:annotation>
1742         </xsd:element>
1743         <xsd:element name="ObjectAggregation" type="ecc:ObjectAggregationType">
1744             <xsd:annotation>
1745                 <xsd:documentation/>
1746             </xsd:annotation>
1747         </xsd:element>
1748         <xsd:element name="InArea" type="ecc:AreaType" minOccurs="0">
1749             <xsd:annotation>
1750                 <xsd:documentation/>
1751             </xsd:annotation>
1752         </xsd:element>
1753         <xsd:element name="OutArea" type="ecc:AreaType" minOccurs="0">
1754             <xsd:annotation>
1755                 <xsd:documentation/>
1756             </xsd:annotation>
1757         </xsd:element>
1758         <xsd:element name="MeteringPointIdentification" type="ecc:MeteringPointType" minOccurs="0">
1759             <xsd:annotation>
1760                 <xsd:documentation/>
1761             </xsd:annotation>
1762         </xsd:element>
1763         <xsd:element name="InParty" type="ecc:PartyType" minOccurs="0">
1764             <xsd:annotation>
1765                 <xsd:documentation/>
1766             </xsd:annotation>
1767         </xsd:element>
1768         <xsd:element name="OutParty" type="ecc:PartyType" minOccurs="0">
1769             <xsd:annotation>
1770                 <xsd:documentation/>
1771             </xsd:annotation>
1772         </xsd:element>
1773         <xsd:element name="CapacityContractType" type="ecc:ContractType" minOccurs="0">
1774             <xsd:annotation>
1775                 <xsd:documentation/>
1776             </xsd:annotation>
1777         </xsd:element>
1778         <xsd:element name="CapacityAgreementIdentification" type="ecc:IdentificationType" minOccurs="0">
1779             <xsd:annotation>
1780                 <xsd:documentation/>
1781             </xsd:annotation>
1782         </xsd:element>
1783         <xsd:element name="MeasurementUnit" type="ecc:UnitOfMeasureType">
1784             <xsd:annotation>
1785                 <xsd:documentation/>
1786             </xsd:annotation>

```

```

1787         </xsd:element>
1788         <xsd:element name="Period" type="Period_Type"/>
1789         <xsd:element name="Reason" type="Reason_Type" maxOccurs="unbounded"/>
1790     </xsd:sequence>
1791 </xsd:complexType>
1792 </xsd:schema>

```

1793 9.3.3 Confirmation report - Data instance

```

1794 <?xml version="1.0" encoding="UTF-8"?>
1795 <?xml-stylesheet type="text/xsl" href="confirmation-report.xsl"?>
1796 <ConfirmationReport DtdVersion="3" DtdRelease="0">
1797     <MessageIdentification v="zerotro"/>
1798     <MessageType v="A08"/>
1799     <MessageDateTime v="2001-06-02T09:00:00Z"/>
1800     <SenderIdentification v="5790000432752" codingScheme="A10"/>
1801     <SenderRole v="A01"/>
1802     <ReceiverIdentification v="10X000000000RTEM" codingScheme="A01"/>
1803     <ReceiverRole v="A01"/>
1804     <ScheduleTimeInterval v="2001-06-02T22:00Z/2001-06-02T23:00Z"/>
1805     <ConfirmedMessageIdentification v="1234"/>
1806     <ConfirmedMessageVersion v="1"/>
1807     <Domain v="12Y000002347651H"/>
1808     <Reason>
1809         <ReasonCode v="A07"/>
1810     </Reason>
1811     <TimeSeriesConfirmation>
1812         <SendersMessageIdentification v="1234"/>
1813         <SendersMessageVersion v="1"/>
1814         <SendersTimeSeriesIdentification v="TS0001"/>
1815         <SendersTimeSeriesVersion v="1"/>
1816         <BusinessType v="A03"/>
1817         <Product v="8716867000016"/>
1818         <ObjectAggregation v="A01"/>
1819         <InArea v="12Y000002347651H" codingScheme="A01"/>
1820         <OutArea v="12YRWENET-----Q" codingScheme="A01"/>
1821         <InParty v="11X000000100741R" codingScheme="A01"/>
1822         <OutParty v="11X000000340533X" codingScheme="A01"/>
1823         <CapacityContractType v="A01"/>
1824         <CapacityAgreementIdentification v="R567">
1825             <MeasurementUnit v="MAW"/>
1826             <Period>
1827                 <TimeInterval v="2001-06-02T22:00Z/2001-06-02T23:00Z"/>
1828                 <Resolution v="PT15M"/>
1829                 <Interval>
1830                     <Pos v="1"/>
1831                     <Qty v="40"/>
1832                 </Interval>
1833                 <Interval>
1834                     <Pos v="2"/>
1835                     <Qty v="45"/>
1836                 </Interval>
1837                 <Interval>
1838                     <Pos v="3"/>
1839                     <Qty v="45"/>
1840                 </Interval>
1841                 <Interval>
1842                     <Pos v="4"/>
1843                     <Qty v="45"/>
1844                 </Interval>
1845             </Reason>
1846             <ReasonCode v="A26"/>
1847         </Reason>
1848     </TimeSeriesConfirmation>
1849 </ConfirmationReport>

```

1850 **10. COMMUNICATIONS INFORMATION**

1851 **10.1 Test indication (differentiation between live and test transmissions)**

1852 Test indication information has not been built into the messages. The recommended method for
1853 testing is to obtain a separate communications address in order to ensure that testing is carried out
1854 in a specific test environment.

1855 **10.2 Transmission requirements**

1856 Schedule message interchanges between market parties and a TSO will be determined by the TSO
1857 depending on its communications infrastructure.

1858 **10.3 Identification of the ESS Schema in an XML document**

1859 The location of the ETSO Scheduling System Schema may be identified in the XML documents
1860 with the following relative URLs:

1861 `../schedulev3r2/schema/schedule-xml.xsd.`

1862 `../schedulev3r2/schema/anomaly-xml.xsd.`

1863 `../schedulev3r2/schema/confirmation-xml.xsd.`

1864 **10.4 Use of a data instance that uses indifferently the DTD or Schema**

1865 In some contexts it may be of interest for the TSO to allow a market participant to use
1866 indifferently a DTD or an XML schema. In this case the “DOCTYPE” instruction in the DTD
1867 compliant instance or the schema instance (xsi) instruction in the schema compliant instance are
1868 not used. This results in an XML document that does not identify the DTD or XML Schema to
1869 which it is compliant. It is consequently up to the receiving party to use either the DTD or Schema
1870 that it feels appropriate to validate the information instance. The initial XML tag provides the
1871 information necessary to determine both the XML document name (i.e. ScheduleMessage,
1872 AcknowledgementDocument, AnomalyReport or ConfirmationReport) and the version and release
1873 used (dtdVersion and dtdRelease) of the DTD or Schema being employed.

1874 In the examples provided in paragraph 9 all the instances are shown using this method of transfer.

1875 **10.5 Common file naming convention**

1876 In certain circumstances, such as the use of FTP transmissions, it may be necessary to agree on a
1877 mutual naming convention for the transmission of an XML schedule file. ETSO TF EDI has
1878 examined this problem and recommends that the following naming convention be employed for
1879 ESS XML messages:

- 1880 1. The sender identification. The identification of the sender as identified in the XML
1881 message field “Sender Identification”.
- 1882 2. A hyphen (“-”).
- 1883 3. The message identification. The identification of the message as identified in the
1884 XML message field “Message Identification”.
- 1885 4. A hyphen (“-”).
- 1886 5. Message version. The version of the message as identified in the XML message field
1887 “Message Version” formatted as 3 digit number with leading zeros.
- 1888 6. Terminating with the extension “.xml”

1889 Example: 10x123456789012c-mess01-001.xml

11. THE ETSO STEERING COMMITTEE RECOMMENDATION

On the 24th 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 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."

1909 **12. EXAMPLES**
1910 **12.1 Day ahead nomination examples for different local market systems**

<u>ScheduleMessage Header</u>	Party System without Balance Groups			Balance Group System			Balance Group System (Germany)		
	Production	Consumption	external trade between area France and area RWENET	Production	Consumption	external trade between area France and area RWENET	Production	Consumption	external trade between area EON and area VE-T
Message Identification	DOK1P	DOK1C	DOK1T	DOK1P	DOK1C	DOK1T	DOK1X		
Message Version	1			1			1		
Message Type	A01			A01			A01		
Process Type	A01			A01			A01		
Schedule Classification Type	A01			A01			A01		
Sender Identification	11X-PARTY----AE			11X-PARTY----AE			11X-VE-PARTY--P		
Sender Role	A01, A02, A06, A08, A11, A28, ...			A01, A02, A06, A08, A11, A28, ...			A08 or ...		
Receiver Identification	11XFR-RTE----X			11XFR-RTE----X			10XDE-VE-TRANSMK		
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	10YFR-RTEGRID-X			10YFR-RTEGRID-X			10YDE-VE-----2		
Subject Party	11X-PARTY----AE			11X-PARTY-BG-A5			11XVE-BALANCEGP7		
Subject Role	A06	A02	A01	A06	A02	A01	A36		
Matching Period	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 with explicit capacity	Production	Consumption	External trade with explicit capacity	Production	Consumption	External trade without explicit capacity
Senders Time Series Identification	TSXXAB	TSXXAC	TSXXAD	TSXXAB	TSXXAC	TSXXAD	TS1	TS2	TS3
Senders Time Series Version	1			1			1		
Business Type	A01	A04	A03	A01	A04	A03	A01	A04	A06
Product	8716867000016			8716867000016			8716867000016		
Object Aggregation	A03			A03			A03		
In Area	10YFR-RTEGRID-X		10YFR-RTEGRID-X	10YFR-RTEGRID-X		10YFR-RTEGRID-X	10YDE-VE-----2		10YDE-VE-----2
Out Area		10YFR-RTEGRID-X	10YDE-RWENET--I		10YFR-RTEGRID-X	10YDE-RWENET--I		10YDE-VE-----2	10YDE-EON-----1
Metering Point Identification									
In Party	11X-PARTY----AE		11X-PARTY----AE	11X-PARTY-BG-A5		11X-PARTY-BG-A5	11XVE-BALANCEGP7		11XVE-BALANCEGP7
Out Party		11X-PARTY----AE	11X-PARTY----BC		11X-PARTY-BG-A5	11X-PARTY-BG-A3		11XVE-BALANCEGP7	11XVE-BALANCEGP7
Capacity Contract Type									
Capacity Agreement Identification									
Measurement Unit	MAW	MAW	MAW	MAW	MAW	MAW	MAW	MAW	MAW
Period									
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	PT30M	PT30M	PT60M	PT30M	PT30M	PT60M	PT15M		
Interval									
Pos	1	1	1	1	1	1	1	1	1
Qty	50	50	40	50	50	40	70	20	50

Remarks:

The concerned subject (Balance Responsible Party, Balance Group) is identified by Subject Party. The type of data (production, consumption, trade schedules) is identified by Subject Role.		
Separate documents for production, consumption and trade time series	Separate documents for production, consumption and trade time series	One Document contains production, consumption and trade time series. Therefore a generic role (A08) is used for the Subject Role

1911

1912

1913 **12.2 Evolution of the same current position with different process types**

1914 **12.2.1 A17 – Schedule day**

	Values included in the TimeInterval but not in the MatchingPeriod
	Values included in the TimeInterval and in the MatchingPeriod

Publication	ProcessType	DocumentId	Version	1	2	3	4	...	20	21	22	23	24
ScheduleDay 1	A17	DocId001	1	100	200	300	400	...	100	110	120	130	140
Current position				100	200	300	400	...	100	110	120	130	140
ScheduleDay 2	A17	DocId001	2	100	205	305	405	...	105	115	125	135	145
Current position				100	205	305	405	...	105	115	125	135	145
ScheduleDay 3	A17	DocId001	3	100	205	310	410	...	115	125	135	145	155
Current position				100	205	310	410	...	115	125	135	145	155
...													
ScheduleDay 24	A17	DocId001	24	100	205	310	410	...	115	125	135	145	225
Current position				100	205	310	410	...	115	125	135	145	225

1915 numbers represent the values exchanged in the schedule document

Evolution of current position is also shown

1916 12.2.2 A02 – Intraday

	Values included in the TimeInterval but not in the MatchingPeriod
	Values included in the TimeInterval and in the MatchingPeriod

Publication	ProcessType	DocumentId	Version	1	2	3	4	...	20	21	22	23	24
Day Ahead	A01	DocId001	1	100	200	300	400	...	100	110	120	130	140
Current position				100	200	300	400	...	100	110	120	130	140
Intraday 1	A02	DocId002	1		5	5	5	...	5	5	5	5	5
Current position				100	205	305	405	...	105	115	125	135	145
Intraday 2	A02	DocId003	1			5	5	...	10	10	10	10	10
Current position				100	205	310	410	...	115	125	135	145	155
...													
Intraday 24	A02	DocId024	1										70
Current position				100	205	310	410	...	115	125	135	145	225

numbers represent the values exchanged in the schedule document
Evolution of current position is also shown
The number of intradays may be less than 24

1917

1918 12.2.3 A18 – Intraday “total”

	Values included in the TimeInterval but not in the MatchingPeriod
	Values included in the TimeInterval and in the MatchingPeriod

Publication	ProcessType	DocumentId	Version	1	2	3	4	...	20	21	22	23	24
Day Ahead	A01	DocId001	1	100	200	300	400	...	100	110	120	130	140
Current position				100	200	300	400	...	100	110	120	130	140
Intraday 1	A18	DocId002	1	100	205	305	405	...	105	115	125	135	145
Current position				100	205	305	405	...	105	115	125	135	145
Intraday 2	A18	DocId003	1	100	205	310	410	...	115	125	135	145	155
Current position				100	205	310	410	...	115	125	135	145	155
...													
Intraday 24	A18	DocId024	1	100	205	310	410	...	115	125	135	145	225
Current position				100	205	310	410	...	115	125	135	145	225

numbers represent the values exchanged in the schedule document
Evolution of current position is also shown
The number of intradays may be less than 24

1919

1920 12.2.4 A19 – Intraday “accumulated”

	Values included in the TimeInterval but not in the MatchingPeriod
	Values included in the TimeInterval and in the MatchingPeriod

Publication	ProcessType	DocumentId	Version	1	2	3	4	...	20	21	22	23	24
Day Ahead	A01	DocId001	1	100	200	300	400	...	100	110	120	130	140
Current position				100	200	300	400	...	100	110	120	130	140
Intraday 1	A19	DocId002	1	0	5	5	5	...	5	5	5	5	5
Current position				100	205	305	405	...	105	115	125	135	145
Intraday 2	A19	DocId002	2	0	5	10	10	...	15	15	15	15	15
Current position				100	205	310	410	...	115	125	135	145	155
...													
Intraday 24	A19	DocId002	23	0	5	10	10	...	15	15	15	15	85
Current position				100	205	310	410	...	115	125	135	145	225

numbers represent the values exchanged in the schedule document
Evolution of current position is also shown
The number of intradays may be less than 24

1921