



# The Harmonised Electricity Market Role Model

## Associated organisations:



**Version: 2009-01**

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## Revision History

Version	Release	Date	Paragraphs	Comments
0	8	2001-02-10		Initial version for comment
1	0	2002-06-17		Initial release of document
2	0	2003-02-12		Add more detail to market domains
3	0	2004-04-29		Add new domain of “unit” “functional group” and “balance group”, include the UCTE environment and adopt model to more correctly reflect the overall market.
3	1	2004-09-22	3.1 introduction 5 and 6	Definition of Role and party Addition of Metered data responsible Correction of metered data aggregator responsible
3	2	2005-03-29	6	Clarified definitions in order to bring it into line as a harmonised version
4	0	2006-07-06	5 and 6	Introduced new domains Resource Object, Reserve Object and new roles Resource Provider, Capacity Trader, Interconnection Trade Responsible, Nomination Validator. Modified definition Market Operator, System Operator and Transmission Capacity Allocator
5	0	2007-12-01	5 and 6	Rationalised the relationships to focalise where possible on responsibility. Improved definition layout. Added new roles: Reconciliation Responsible, Reconciliation Accountable, Market Information Aggregator
2008-01		2008-07-01	Change version number  Definition changes  Domain name change	The version number is changed in order to take into consideration the 2 publications per year (yyyy-01 and yyyy-02).  Market Operator Balance Supplier Grid Operator Resource Object Capacity Trader CBT to ITC

<b>Version</b>	<b>Release</b>	<b>Date</b>	<b>Paragraphs</b>	<b>Comments</b>
2008-02		2008-12-08	New roles  Change relation	MOL Responsible for ERRP Reserve Allocator for ERRP  Suppress the relation between the Metered Data Responsible and the Local metering point.  Add the relation between the Metered Data Responsible and the Metering Point
2009-01		2009-06-26	Modified definition    Changed relation	Adjusted all names in figure to upper camel case.  Modified example for Capacity Market Area  Added example to Common Capacity Area  Modified definition of Grid Access Provider  Modified definition of Market Information Aggregator  Modified name of relation of Grid Access Provider with Local Metering Point.  Approved by the ETSO Steering Committee

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# 1 INTRODUCTION

This document describes a model identifying all the roles that can be played for given domains within the electricity market. The roles are of a logical nature (such as a trade responsible party) which act within a given domain (such as a balance area).

The document covers the roles as identified in current development being carried out in information exchange. It will naturally grow or evolve as this work progresses. The reader is therefore encouraged to ensure that the document is the latest available version. This may be found at the web site [www.etso-net.org](http://www.etso-net.org) section “electronic data interchange”.

A role model of this nature shall be the formal means of identifying roles and domains that are used in information interchange in the electricity market. It therefore can affect the way business processes are designed for automation. It ensures that the information exchanged between parties corresponds to a process managed within the electricity market between distinct roles that are assumed by specific parties.

The necessity for such a model arises from the possibility of a single party in the market to assume multiple roles.

In the same context it is not necessary for any two parties to play the same set of roles.

Consequently, the tendency for a party assuming multiple roles may be to include in a single information exchange all the information required for all the roles in question. This could mean that another party merely playing one of the roles in question might not be in the position to provide the information required. The role model permits the processes to be analysed within the context of identified roles and not within the context of that of a given party within the market. This implies that the roles have been atomically decomposed in order to satisfy the minimal information flows for a given process required by the electricity market. A legal entity can therefore play one or more of the roles for a given domain.

As the electricity market opens more and more parties will appear who assume only one or several of the roles identified. The information exchanges that have been analysed within the context of the role model will enable the new parties to assume the market requirements placed upon them for such information exchanges.

## 2 ABOUT THE ROLE MODEL

The role model as shown in the pictorial diagram makes use of essentially four symbols:

1. A stickman symbol to indicate roles which are assumed by market participants;
2. A rectangle symbol to indicate roles which are related to physical or structural breakdowns
3. An arrow symbol with a light arrowhead to indicate the principal relationships between the different objects. The arrow generally only shows one aspect of the relationship which is that of the object at the tail of the arrow to the object at the head of the arrow.
4. An arrow symbol with a thick arrowhead to indicate that the object at the tail of the arrow is a specific type of the object at the head of the arrow.

Associated with the pictorial role model is a list of all the roles and their respective definitions.

In the development of the information exchanges these roles are used to describe the various information flows that are carried out between them. A market participant can consequently determine the roles he plays in the market and from that gather the information exchanges that will be necessary to be fulfilled.

### 3 PROCEDURES FOR THE USE OF THE ROLE MODEL

#### 3.1 Introduction

A role represents the external intended behaviour of a party. Parties cannot share a role. Businesses carry out their activities by performing roles, e.g. system operator, trader. Roles describe external business interactions with other parties in relation to the goal of a given business transaction.

A domain represents a delimited area that is uniquely identified for a specific purpose and where energy consumption, production or trade may be determined.

A party represents an organisation or a part of an organisation that participates in a business transaction. Within a given business transaction a party assumes a specific role or a set of roles.

The objective therefore of decomposing the electricity industry into a set of autonomous roles is to enable the construction of business processes where the relevant role participates to satisfy a specific business transaction.

A business process may be defined as a formal specification of a set of business transactions having the same business goal. For example, the day ahead schedule business process.

A business transaction may be defined as a predefined set of activities that are initiated by a role to accomplish an explicitly shared business goal and terminated upon recognition of one of the agreed conclusions by all the involved roles.

It is therefore composed of one or more information flows, which shall be termed business messages, exchanged between roles. For example, the transmission of planned schedules to the system operator starts with the emission of the planned schedule by a business responsible party and terminates with the reception of the confirmation report.

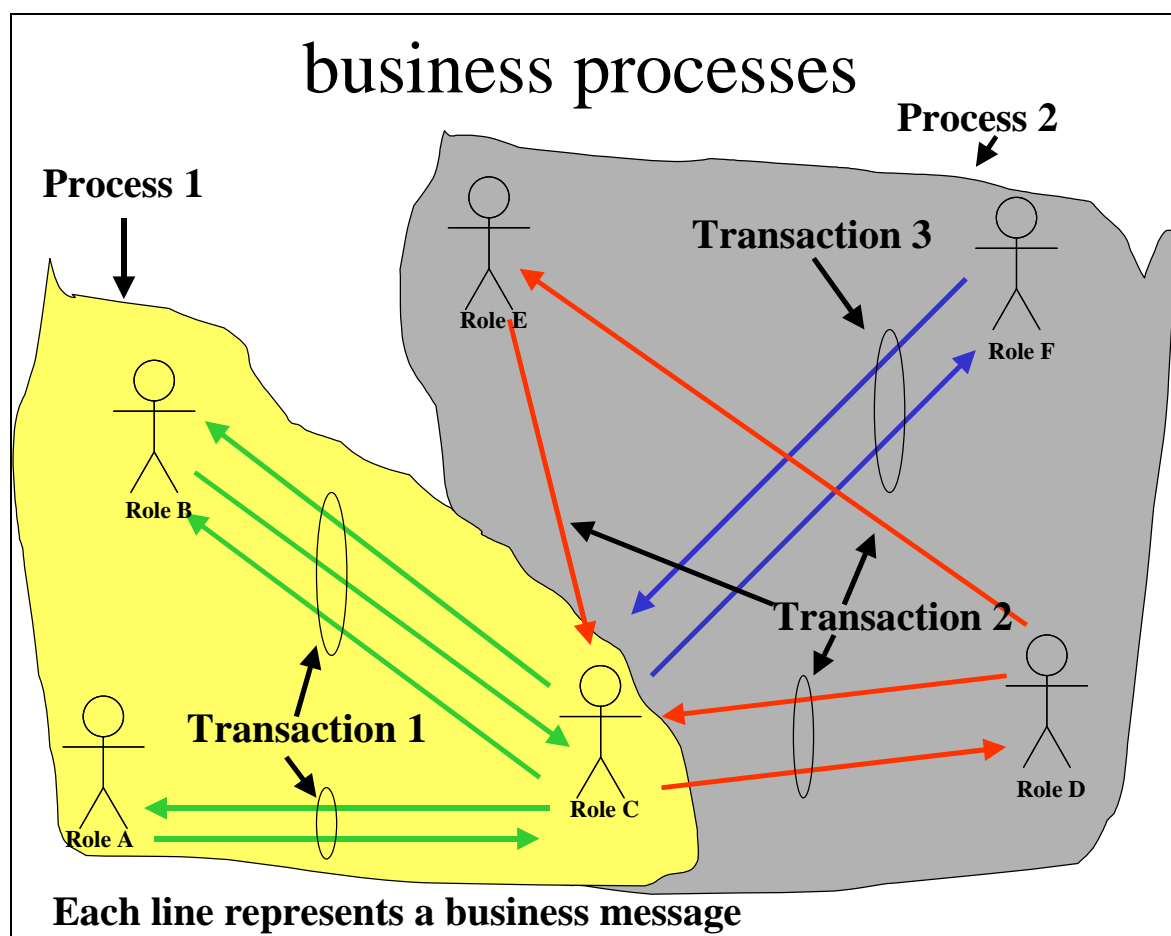


Figure 3-1 Business processes, transactions and messages

The diagram in Figure 3-1 provides an example of the different relationships that can appear in a role model. The diagram shows two business processes, three business transactions, six roles and a number of business messages. It can be seen that role C participates in both processes, and in all transactions. It is not the intent of the role model to define the business processes or the business transactions themselves. The role model will only provide the principal business messages that are exchanged between two roles. The business messages, which could be paper or electronic, provide the main justification for the roles presence in the role model. The business process and business transactions that are derived from the role model will be completely defined in an implementation guide.

A party may play one or multiple roles within a given business process. For example in business process 2 in Figure 3-1 a single party could play role D, role E and role F.

It is therefore essential that when designing a business process composed of one or more business transactions, the constraints on each business message of a business transaction are defined exclusively in relation to the role and the part the role plays in the business transaction. Thus a party who plays only one role may participate in the business process just as actively as a party who plays several.

This places in certain cases an overhead on a party playing several roles but it ensures that the standardisation of the business process throughout the industry and consequently enables software providers to integrate such processes in their standard offerings.

### 3.2 Role constraints

A role must be able to stand alone within the model. In other words it must represent a relatively autonomous function. A good guide to determining the validity for the insertion of a role is to determine whether it provides:

1. All the information relevant to interoperability. It must be able to participate in the development of a business process by being a key factor in the construction of the allowable sequences of information exchanges and satisfy the conditions in which it is allowed to send information. In this respect it has to be autonomous. That is to say it must have the business responsibility which enables it to:
  - receive information from another role,
  - determine the actions to be carried out on the information in question,
  - terminate, if necessary, prematurely the exchange respecting predefined rules,
  - send information to the role in question or another role,
  - manage error conditions,
2. Provide the necessary functions imposed on it by eventually participating in information exchanges with other roles.
3. Satisfy the process constraints in which the role participates. Such constraints impose restrictions on how roles may or must react. These constraints will be defined within the business process specification. Such constraints include:
  - demands on quality of service imposed by the business process requirements for a role, such as network acknowledgement or security features;
  - constraints on the characteristics for the party which can play the role;
  - constraints of preconditions that must be met before a role can be played;
  - constraints on the ability of a party to assign all or part of a role to another party;
4. The role shall be generic. The model is intended to be employed throughout the industry consequently roles that are specific or that are particular to only one European context shall not appear in the model.



### 3.3 Role model use

The role model shall be used to build the business processes that are necessary for the electricity market. The generic nature of the role model should cover all the roles that can be used in a heterogeneous environment.

If, during the course of the construction of a process, a role is found to be missing from the role model a maintenance request should be made requesting its inclusion in the model.

## 4 MAINTENANCE PROCEDURE FOR THE ROLE MODEL

### 4.1 Contacts to channel maintenance requests

#### Organisation Contacts

Organisation	Name	E-mail
ETSO Task Force EDI Electronic Data Interchange		<a href="mailto:edi@etso-net.org">edi@etso-net.org</a>
Convenor	Maurizio Monti, RTE	Maurizio.monti@rte-france.com

#### Associated organisation contacts :

EFET	Hugh Brunswick, EFET	<a href="mailto:hugh.brunswick@efet.org">hugh.brunswick@efet.org</a>
ebIX	Lucy Sarkisian	<a href="mailto:l.sarkisian@tennet.org">l.sarkisian@tennet.org</a>

### 4.2 The maintenance organisation

ETSO has set up, in collaboration with its associated organisations, a maintenance group under Task Force EDI that will process all requests to add to or change the role model. This structure is composed of members from each of the participating organisations. The members nominated by these organisations should be well versed in modelling technology and have an intimate knowledge of the role model.

One of the members of the maintenance organisation acts as its chair. The members elect the chair.

The chair shall ensure that all maintenance requests are processed in a timely manner.

He shall also ensure that the requestor is informed of the final decision and, in the case where the request is approved, he will ensure that the role model is updated accordingly and made available to the general public.

In the case of disapproval the chair will ensure that the motivations for the rejection are clear and are forwarded to the requestor

In general all maintenance requests will be processed via e-mail. In this context, the chair shall act as the focal point and shall make every effort to obtain consensus.

### 4.3 The maintenance request contents

A maintenance request may be made for the addition, modification or suppression of a role. Each of these cases imposes different constraints on the maintenance process. For example, the suppression of a role may only occur if no business processes are using it or if the business processes that use it are modified accordingly. The three different types of maintenance request will be outlined in the following paragraphs.

#### 4.3.1 An addition to the role model

A request to add a role to the role model shall provide the following information:

1. The name of the role. This name should be as short as possible and should provide an indication of its principal function.
2. The definition of the role. The definition should be as exhaustive as possible. Examples should be provided in order to improve the clarity of the definition. Real life examples may also be provided.
3. The context where the role may be used. The context is used to describe a business process where the role is employed. It does not have to be exhaustive, as not all the business processes are necessarily known. A role must be intended for at least one business process.

4. The sequence or activity diagrams describing the actual information flows between existing roles and the new role. These diagrams should reflect an actual implementation or the development of an implementation guide.
5. An outline of the principal information flows between other roles in the model. These shall be taken from the sequence diagrams outlined in point 4. A role should have at least one association with another role in the model. If not the role should be kept aside until a relationship with another role is established either through a direct association or through the addition of other roles that make the association.

If one of these five conditions is not satisfied the maintenance request shall be rejected for incompatibility of form.

When all the conditions necessary to process the maintenance request are satisfied, it shall be passed to the maintenance group for comment. The members shall examine the request bearing in mind the procedures for the creation and use of a role model.

All comments shall be sent to all members. The chair shall make a summary of the comments and in the case of differences of view shall request clarification from the members. In the case of persistent differences the chair shall call a vote on the subject.

#### **4.3.2 A modification to the role model**

The modification to the role model can only concern two areas:

1. The modification of the definition of a role or domain. In this case the maintenance request shall provide the modified definition with a description justifying the reason for the change.
2. The addition of a relationship between a role or domain and another role or domain. In this case the maintenance request shall provide a role model containing the additional relationships and a description justifying the reason for the change.

As for the additions to the role model, all comments shall be sent to all members. The chair shall make a summary of the comments and in the case of differences of view shall request clarification from the members. In the case of persistent differences the chair shall call a vote on the subject.

#### **4.3.3 Suppression to the role model**

As mentioned earlier, the suppression of a role can only occur if no business processes are using it or if the business processes that use it are modified accordingly.

The maintenance request shall simply provide the role, domain or relationship to be suppressed and the description justifying the reason for the suppression.

As for the additions to the role model, all comments shall be sent to all members. The chair shall make a summary of the comments and in the case of differences of view shall request clarification from the members. In the case of persistent differences the chair shall call a vote on the subject.

## 4.4 Voting

The preferred way of reaching decisions shall be by consensus. (Consensus is defined as at least a two-thirds majority agreement, characterised by the absence of significant and sustained opposition).

However, the Chair shall have the authority to call for a vote if, in the Chair's view, consensus cannot be reached on a particular issue.

Each role and domain has been assigned a responsible organisation. In some cases the responsibility is shared.

For a decision to be approved a majority of 75% of the votes cast is required and abstentions shall count as votes. Since the vote is electronic, all members will be required to vote. However the following basic rules also apply:

In the case of an addition to the role model, all members must agree (i.e. No sustained opposition)

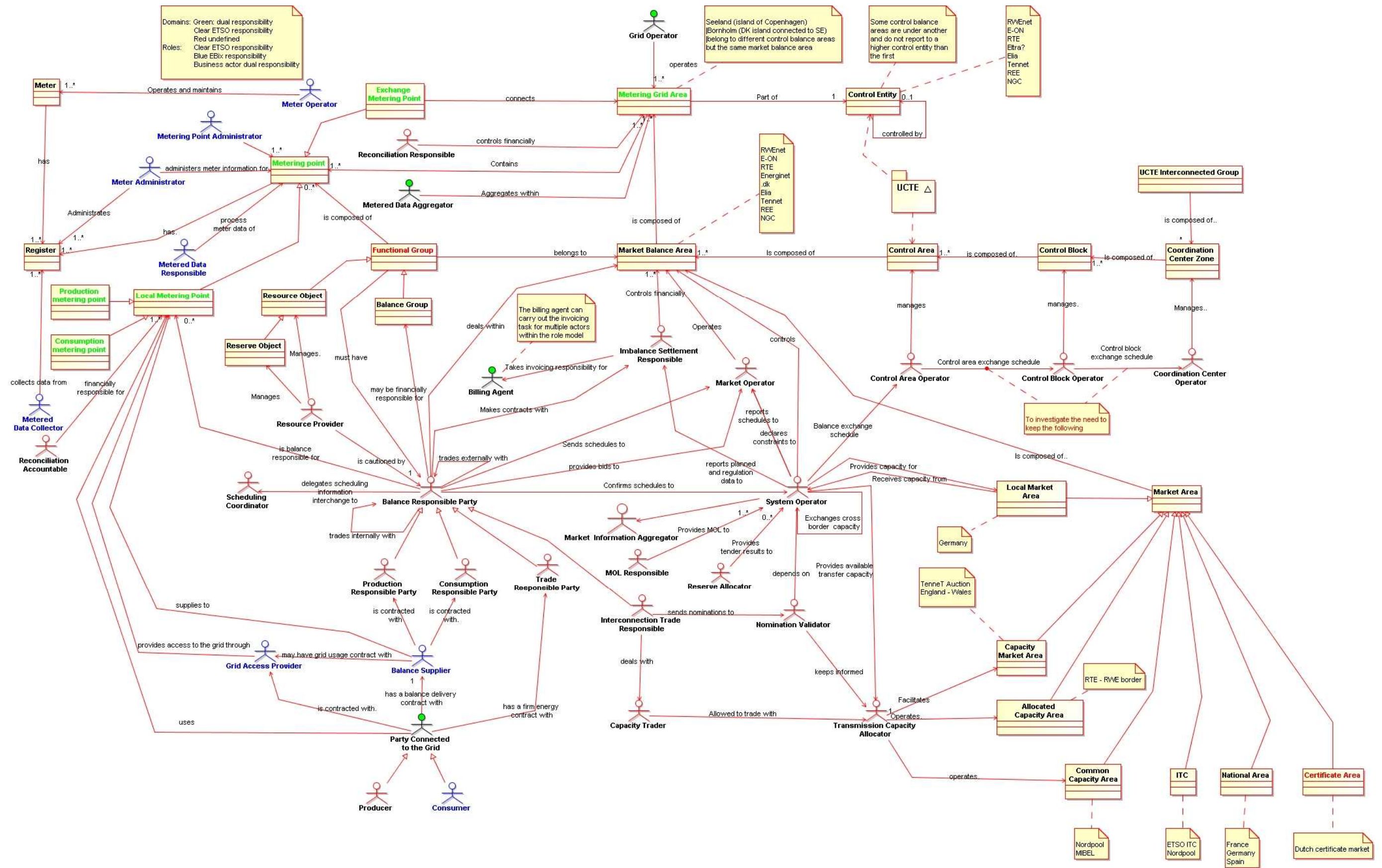
In the case of a change, a majority vote can approve the change. However, the responsible organisation may veto the change.

In the case of a deletion, a majority vote can approve the deletion. However, the responsible organisation may veto such a deletion.

The number of votes held by each of the current organisations is:

- ETSO - 4 votes
- ebIX – 4 Votes.
- EFET – 1 vote.

# 5 THE ROLE MODEL



## 6 ROLE MODEL DEFINITIONS

### 6.1 Roles

ROLES		
TYPE	ROLE/DOMAIN NAME	DESCRIPTION
Role	Balance Responsible Party	<p>A party that has a contract proving financial security and identifying balance responsibility with the imbalance settlement responsible of the market balance area entitling the party to operate in the market. This is the only role allowing a party to buy or sell energy on a wholesale level.</p> <p><b><u>Additional information:</u></b> The meaning of the word "balance" in this context signifies that that the quantity contracted to provide or to consume must be equal to the quantity really provided or consumed. Such a party is often owned by a number of market players.</p> <p>Equivalent to "Program responsible party" in the Netherlands. Equivalent to "Balance responsible group" in Germany. Equivalent to "market agent" in Spain.</p>
Role	Balance Supplier	<p>A party that markets the difference between actual metered energy consumption and the energy bought with firm energy contracts by the party connected to the grid. In addition the balance supplier markets any difference with the firm energy contract (of the party connected to the grid) and the metered production.</p> <p><b><u>Additional information:</u></b> There is only one balance supplier for each metering point.</p>
Role	Billing Agent	<p>The party responsible for invoicing a concerned party.</p> <p><b><u>Note:</u></b> This role has been introduced into the role model in order to underline the fact that the Imbalance settlement responsible has not the responsibility to invoice. However this role is not specific to the settlement process and may be used in other processes as required.</p>
Role	Capacity Trader	<p>A party that has a contract to participate in the capacity market to acquire capacity through a Transmission Capacity Allocator.</p> <p><b><u>Note:</u></b> The capacity may be acquired on behalf of an Interconnection Trade Responsible or for sale on secondary capacity markets.</p>
Role	Consumer	<p>A party that consumes electricity.</p> <p><b><u>Additional information:</u></b> This is a Type of Party Connected to the Grid</p>

ROLES		
TYPE	ROLE/DOMAIN NAME	DESCRIPTION
Role	Consumption Responsible Party	<p>A party who can be brought to rights, legally and financially, for any imbalance between energy bought and consumed for all associated metering points.</p> <p><b><u>Additional information:</u></b> This is a type of Balance Responsible Party</p>
Role	Control Area Operator	<p>Responsible for :</p> <ol style="list-style-type: none"> <li>1. The coordination of exchange programs between its related market balance areas and for the exchanges between its associated control areas.</li> <li>2. The load frequency control for its own area.</li> <li>3. The coordination of the correction of time deviations.</li> </ol>
Role	Control Block Operator	<p>Responsible for :</p> <ol style="list-style-type: none"> <li>1. The coordination of exchanges between its associated control blocks and the organisation of the coordination of exchange programs between its related control areas.</li> <li>2. The load frequency control within its own block and ensuring that its control areas respect their obligations in respect to load frequency control and time deviation.</li> <li>3. The organisation of the settlement and/or compensation between its control areas.</li> </ol>
Role	Coordination Center Operator	<p>Responsible for :</p> <ol style="list-style-type: none"> <li>1. The coordination of exchange programs between its related control blocks and for the exchanges between its associated coordination center zones.</li> <li>2. Ensuring that its control blocks respect their obligations in respect to load frequency control.</li> <li>3. Calculating the time deviation in cooperation with the associated coordination centers.</li> <li>4. Carrying out the settlement and/or compensation between its control blocks and against the other coordination center zones.</li> </ol>
Role	Grid Access Provider	A party responsible for providing access to the grid through a local metering point and its use for energy consumption or production to the party connected to the grid.
Role	Grid Operator	A party that operates one or more grids.
Role	Imbalance Settlement Responsible	A party that is responsible for settlement of the difference between the contracted quantities and the realised quantities of energy products for the balance responsible parties in a market balance area.
Role	Interconnection Trade Responsible	<p>Is a Balance Responsible Party or depends on one. He is recognised by the Nomination Validator for the nomination of already allocated capacity.</p> <p><b><u>Additional information:</u></b> This is a type of Balance Responsible Party</p>

ROLES		
TYPE	ROLE/DOMAIN NAME	DESCRIPTION
Role	Market Information Aggregator	<p>Market Information Aggregator, A party that provides market related information that has been compiled from the figures supplied by different actors in the market. This information may also be published or distributed for general use.</p> <p><b>Note:</b></p> <p>The Market Information Aggregator may receive information from any market participant that is relevant for publication or distribution.</p>
Role	Market Operator	The unique power exchange of trades for the actual delivery of energy that receives the bids from the Balance Responsible Parties that have a contract to bid. The market operator determines the market energy price for the market balance area after applying technical constraints from the system operator. It may also establish the price for the reconciliation within a metering grid area.
Role	Meter Administrator	A party responsible for keeping a database of meters.
Role	Meter Operator	A party responsible for installing, maintaining, testing, certifying and decommissioning physical meters
Role	Metered Data Collector	A party responsible for meter reading and quality control of the reading
Role	Metered Responsible Data	A party responsible for the establishment and validation of metered data based on the collected data received from the Metered Data Collector. The party is responsible for the history of metered data in a metering point.
Role	Metered Aggregator Data	A party responsible for the establishment and qualification of metered data from the Metered data responsible. This data is aggregated according to a defined set of market rules.
Role	Metering Administrator Point	A party responsible for registering the parties linked to the metering points in a grid area and its technical specification. He is responsible for creating and terminating metering points.
Role	MOL Responsible	Responsible for the management of the available tenders for all Acquiring System Operators to establish the order of the reserve capacity that can be activated.
Role	Nomination Validator	Has the responsibility of ensuring that all capacity nominated is within the allowed limits and confirming all valid nominations to all involved parties. He informs the Interconnection Trade Responsible of the maximum nominated capacity allowed. Depending on market rules for a given interconnection the corresponding System Operators may appoint one Nomination Validator.
Role	Party Connected to the Grid	A party that contracts for the right to consume or produce electricity at a metering point.
Role	Producer	<p>A party that produces electricity</p> <p><b><u>Additional information:</u></b></p> <p>This is a type of Party Connected to the Grid</p>

ROLES		
TYPE	ROLE/DOMAIN NAME	DESCRIPTION
Role	Production Responsible Party	<p>A party who can be brought to rights, legally and financially, for any imbalance between energy sold and produced for all associated metering points.</p> <p><b><u>Additional information:</u></b> This is a type of Balance Responsible Party.</p>
Role	Reconciliation Accountable	A party that is financially accountable for the reconciled volume of energy products for a profiled Local metering point.
Role	Reconciliation Responsible	A party that is responsible for reconciling, within a Metering grid area, the volumes used in the imbalance settlement process for profiled metering points and the actual metered quantities.
Role	Reserve Allocator	Informs the market of reserve requirements, receives tenders against the requirements and in compliance with the prequalification criteria, determines what tenders meet requirements and assigns tenders.
Role	Resource Provider	A role that manages a resource object and provides the schedules for it
Role	Scheduling Coordinator	<p>A party that is responsible for the schedule information and its exchange on behalf of a balance responsible party.</p> <p>For example in the Polish market a Scheduling Coordinator is responsible for information interchange for scheduling and settlement.</p>
Role	System Operator	<p>A party that is responsible for a stable power system operation (including the organisation of physical balance) through a transmission grid in a geographical area. The SO will also determine and be responsible for cross border capacity and exchanges. If necessary he may reduce allocated capacity to ensure operational stability.</p> <p>Transmission as mentioned above means "the transport of electricity on the extra high or high voltage network with a view to its delivery to final customers or to distributors. Operation of transmission includes as well the tasks of system operation concerning its management of energy flows, reliability of the system and availability of all necessary system services." (definition taken from the UCTE Operation handbook Glossary).</p> <p><b>Note:</b> Additional obligations may be imposed through local market rules.</p>
Role	Trade Party Responsible	<p>A party who can be brought to rights, legally and financially, for any imbalance between energy bought and consumed for all associated metering points.</p> <p><b><u>Note:</u></b> A power exchange without any privileged responsibilities acts as a Trade Responsible Party.</p> <p><b><u>Additional information:</u></b> This is a type of Balance Responsible Party.</p>



ROLES		
TYPE	ROLE/DOMAIN NAME	DESCRIPTION
Role	Transmission Capacity Allocator	<p>Manages the allocation of transmission capacity for an allocated capacity area.</p> <p><b><u>For explicit auctions:</u></b></p> <p>The Transmission Capacity Allocator manages, on behalf of the System Operators, the allocation of available transmission capacity for an Allocated capacity area. He offers the available transmission capacity to the market, allocates the available transmission capacity to individual Capacity Traders and calculates the billing amount of already allocated capacities to the Capacity Traders.</p>

## 6.2 Domains

DOMAINS		
Domain	Allocated Area Capacity	<p>A market area where the transmission capacity between the balance areas is given to the balance responsible parties according to rules carried out by a transmission capacity allocator. Trade between balance areas is carried out on a bilateral or unilateral basis.</p> <p><b><u>Additional information:</u></b> This is a type of Market Area</p>
Domain	Balance Group	<p>A collection of metering points for imbalance settlement</p> <p><b><u>Note:</u></b> Equivalent to "balance group" (Bilanzgruppe) in the Austrian market or (Bilanzkreis) in the German market German definition: It is composed of a various number of metering points within a Market balance area.</p> <p><b><u>Additional information:</u></b> This is a type of Functional group.</p>
Domain	Capacity Market Area	<p>A market area where the transmission capacity between the balance areas is given to the balance responsible parties in a price based process separated from trading carried out by a transmission capacity allocator. Trade between balance areas is carried out on a bilateral unilateral basis.</p> <p><b><u>For example,</u></b> The auctioning system between TenneT and RWE Net.</p> <p><b><u>Additional information:</u></b> This is a type of Market Area</p>
Domain	Certificate Area	<p>A certificate market area where a common set of rules relative to taxes and pricing for defined types of energy production are applied.</p> <p><b><u>Additional information:</u></b> This is a type of Market Area</p>
Domain	Common Area Capacity	<p>A market area where the available transmission capacity between the balance areas is given to the balance responsible parties based on their bidding to the market operator.</p> <p>Trade between balance areas is carried out through the market operator.</p> <p><b><u>Additional information:</u></b> This is a type of Market Area</p>

DOMAINS		
Domain	Consumption Metering Point	<p>A location where consumption is metered. This may correspond to one physical point or the combination of several points together.</p> <p><b><u>Additional information:</u></b></p> <p>This is a type of Local Metering Point</p>
Domain	Control Area	<p>The composition of one or more market balance areas under the same technical load frequency control responsibility</p> <p><b><u>Note:</u></b></p> <p>In some cases there may be some metering points that belong to a market balance area that is not a part of the control area. However these do not impact the general definition, for example, a village in one country connected to the grid of another.</p>
Domain	Control Block	<p>The composition of one or more control areas, working together to ensure the load frequency control on behalf of UCTE.</p>
Domain	Control Entity	<p>A geographic area consisting of one or more metering grid areas with an energy delivery responsibility. Each area is synchronously connected to another area. In most cases such areas have a load frequency responsibility and therefore may have to report to a higher level control entity.</p>
Domain	Coordination Center Zone	<p>The composition of a number of control blocks under the responsibility of the same coordination center operator.</p>
Domain	Exchange Metering Point	<p>A metering point measuring energy exchanges with another metering grid area.</p> <p><b><u>Additional information:</u></b></p> <p>This is a type of Metering Point</p>
Domain	Functional Group	<p>A collection of metering points for consumption and generation within a market balance area.</p>
Domain	ITC	<p>A cross border tariff market is composed of a group of System Operators that accept a common set of rules for the invoicing of energy flows over the border.</p> <p><b><u>Additional information:</u></b></p> <p>This is a type of Market Area</p>
Domain	Local Market Area	<p>A market area where there is no transmission capacity restrictions between the balance areas.</p> <p><b><u>Additional information:</u></b></p> <p>This is a type of Market Area</p>

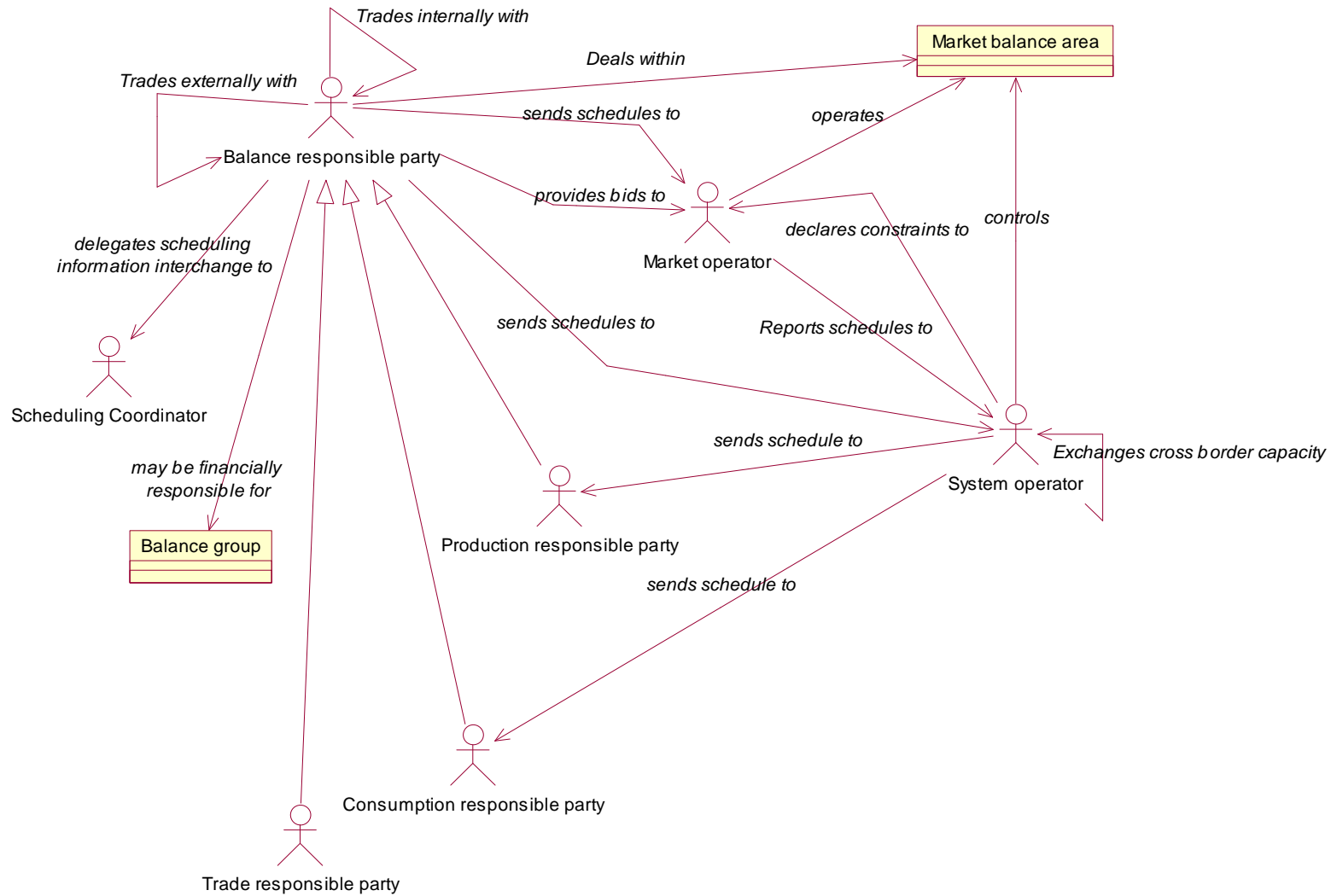
## DOMAINS

Domain	Local Metering Point	<p>The smallest entity for which there is a balance responsibility and where a Balance supplier change can take place. It may be a physical or a logical point.</p> <p><b><u>Additional information:</u></b></p> <p>This is a type of Metering Point.</p>
Domain	Market Area	<p>An area made up of several balance areas interconnected through AC or DC links. Trade is allowed between different balance areas with common market rules for trading across the interconnection.</p>
Domain	Market Balance Area	<p>A geographic area consisting of one or more metering grid areas with common market rules for which the settlement responsible party carries out a balance settlement and which has the same price for imbalance. A market balance area may also be defined due to bottlenecks.</p>
Domain	Meter	<p>A physical device containing one or more registers.</p>
Domain	Metering Grid Area	<p>A metering grid area is a physical area where consumption, production and exchange can be metered. It is delimited by the placement of meters for period measurement for input to, and withdrawal from the area. It can be used to establish the sum of consumption and production with no period measurement and network losses.</p>
Domain	Metering Point	<p>A point where energy products are measured.</p>
Domain	National Area	<p>A area covered by a single set of national electricity arrangements established at government level This is not necessarily the same as the geographical boundaries of a nation</p> <p><b><u>Additional information:</u></b></p> <p>This is a type of Market Area</p>
Domain	Production Metering Point	<p>A location where production is metered. This may correspond to one physical point or the combination of several points together.</p> <p><b><u>Additional information:</u></b></p> <p>This is a type of Metering Point</p>
Domain	Register	<p>A physical or logical counter measuring energy products.</p>
Domain	Reserve Object	<p>A resource technically pre-qualified using a uniform set of standards to supply reserve capabilities to a System Operator associated with one or more metering points and tele-measuring devices.</p> <p><b><u>Additional information:</u></b></p> <p>This is a type of Resource Object</p>

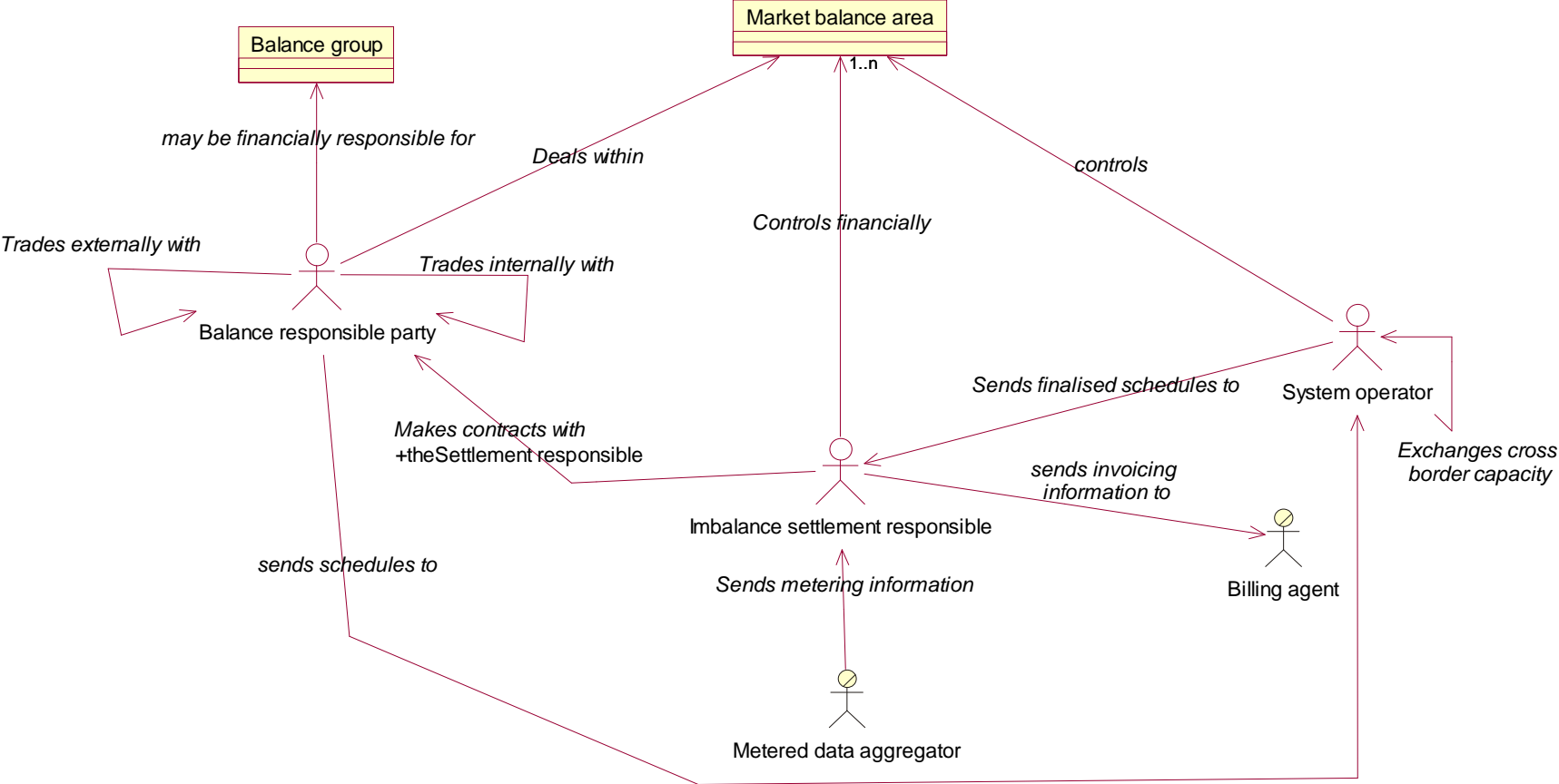
## DOMAINS

Domain	Resource Object	<p>A resource that can either produce or consume energy and that is reported in a schedule.</p> <p><b><u>Additional information:</u></b></p> <p>This is a type of Functional Group</p>
Domain	UCTE Interconnected Group	<p>The composition of a number of coordination center zones, operating under UCTE rules, where the exchange and compensation programmes within the zone must sum up to zero.</p>

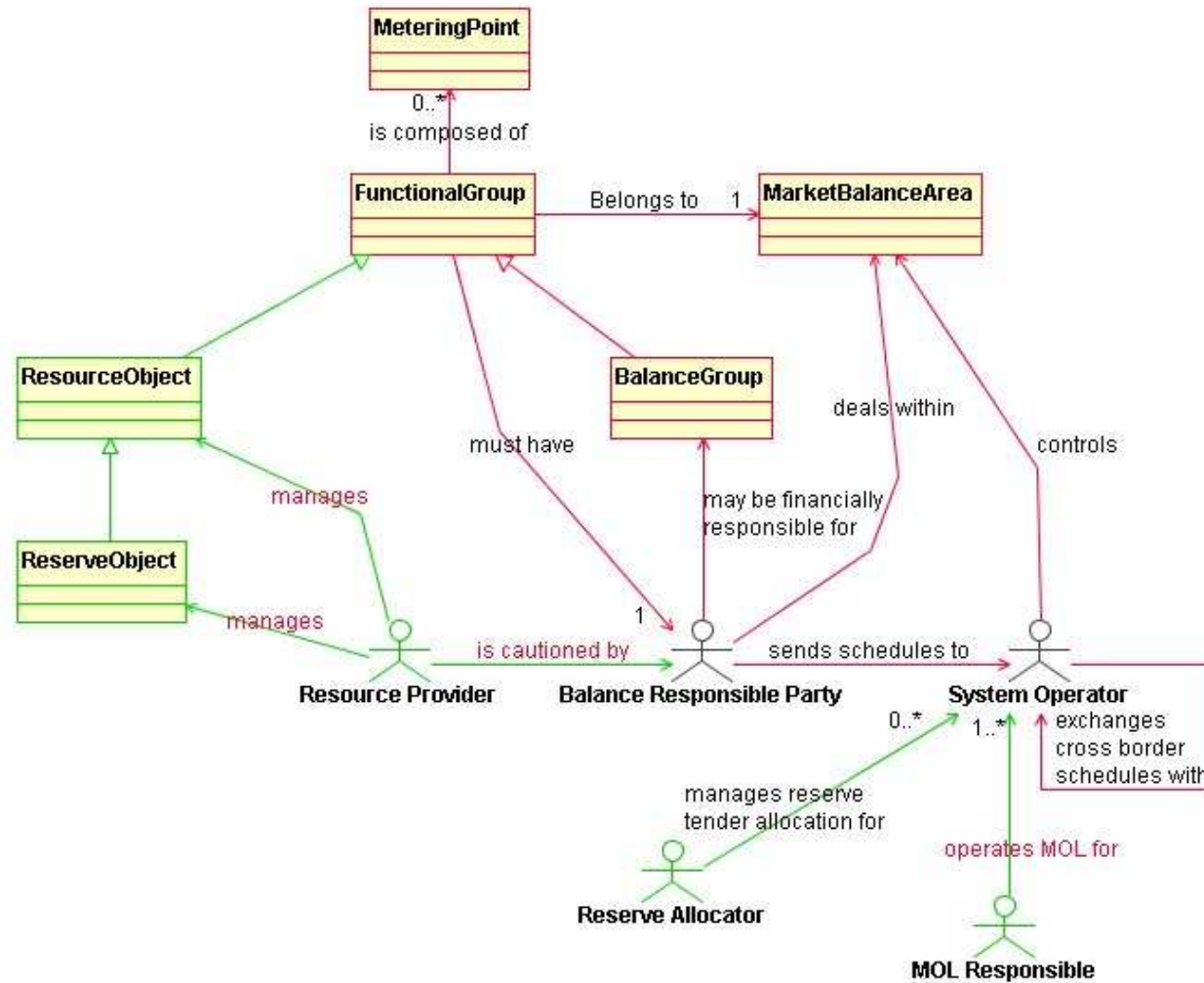
## 7 SCOPE OF THE ETSO SCHEDULING SYSTEM WITHIN THE ROLE MODEL



# 8 SCOPE OF THE ETSO SETTLEMENT PROCESS WITHIN THE ROLE MODEL



## 9 THE ETSO RESERVE RESOURCE PROCESS SYSTEM WITHIN THE DOMAIN MODEL





# 10 THE ETSO CAPACITY ALLOCATION AND NOMINATION PROCESS WITHIN THE DOMAIN MODEL

