# Business Requirements Specification
# For the
# Capacity Allocation Mechanism (CAM)
# Network Code
# and the
# Congestion Management Procedures (CMP)
# guidelines

**Version for Public consultation – 2015-02-03**

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# 1 Introduction

The Capacity Allocation Mechanism (CAM) Network Code (NC) and Congestion Management Procedures (CMP) guidelines set forth provisions regarding capacity allocation mechanisms and congestion management procedures. The CAM NC defines a standardised capacity allocation mechanism in the form of an auction procedure for relevant Interconnection Points within Europe, including the underlying Standard Capacity Products to be offered and the description of how cross-border capacity is to be allocated. The manner in which adjacent Transmission System Operators cooperate in order to facilitate capacity sales, taking into consideration general commercial as well as technical rules related to capacity allocation mechanisms are also outlined.

Additionally, the CMP guidelines defines how congestion management procedures are put into place in the event of contractual congestion.

# 2 Scope

This document defines the external business requirements that are necessary for a harmonised implementation of the transmission of information between parties related to the CAM Network Code, the CMP guidelines and other issues not included in these regulations but related to them (marked as “not referenced in the CAM/CMP regulation” in this document, e.g. credit limits, master data). It is intended to be used by parties participating in the capacity allocation mechanism and congestion management procedures. In particular, the Business Requirements Specification (BRS) enables EASEE-gas to produce the Message Implementation Guideline (MIG).

The BRS does not cover the following subjects, which are referred to in the CAM NC/CMP guidelines but are not essential for the allocation of primary and secondary capacity or for congestion management:

- Co-ordination of maintenance information
- Nominations against capacity rights

This BRS covers requirements for the harmonised implementation of auctions for primary capacity and congestion management procedures as specified in the CAM NC/CMP guidelines. The requirements therefore define the necessary interfaces for the implementation, from an IT perspective, of a capacity allocation and congestion management system.

This BRS is targeted towards business-to-business application interfaces or in a more user-orientated fashion through a web-based service.

This document does not define a governance process for attribute definitions or other requirements. Such a process will need to be determined and defined elsewhere.

The requirements set out in this document are subject to change if there is any change in the obligations on Transmission System Operators or any other party.

***3 These Business Requirement Specifications (BRS) shall define a set of standardized processes which supports the implementation of Commission Regulation (EU) No. 984/2013 and Annex I to Regulation (EC) No 715/2009. Due to continuing implementation the BRS need to be revised and subsequently updated.Business Requirements***

This section describes in detail the business requirements that the information flows are intended to satisfy.

## *3.1 CAM/CMP requirements*

This section outlines the overall business process behaviour of the system without going into the detailed internal workings of each entity. It defines the external requirements of the business process: the relationships between the entities concerned.

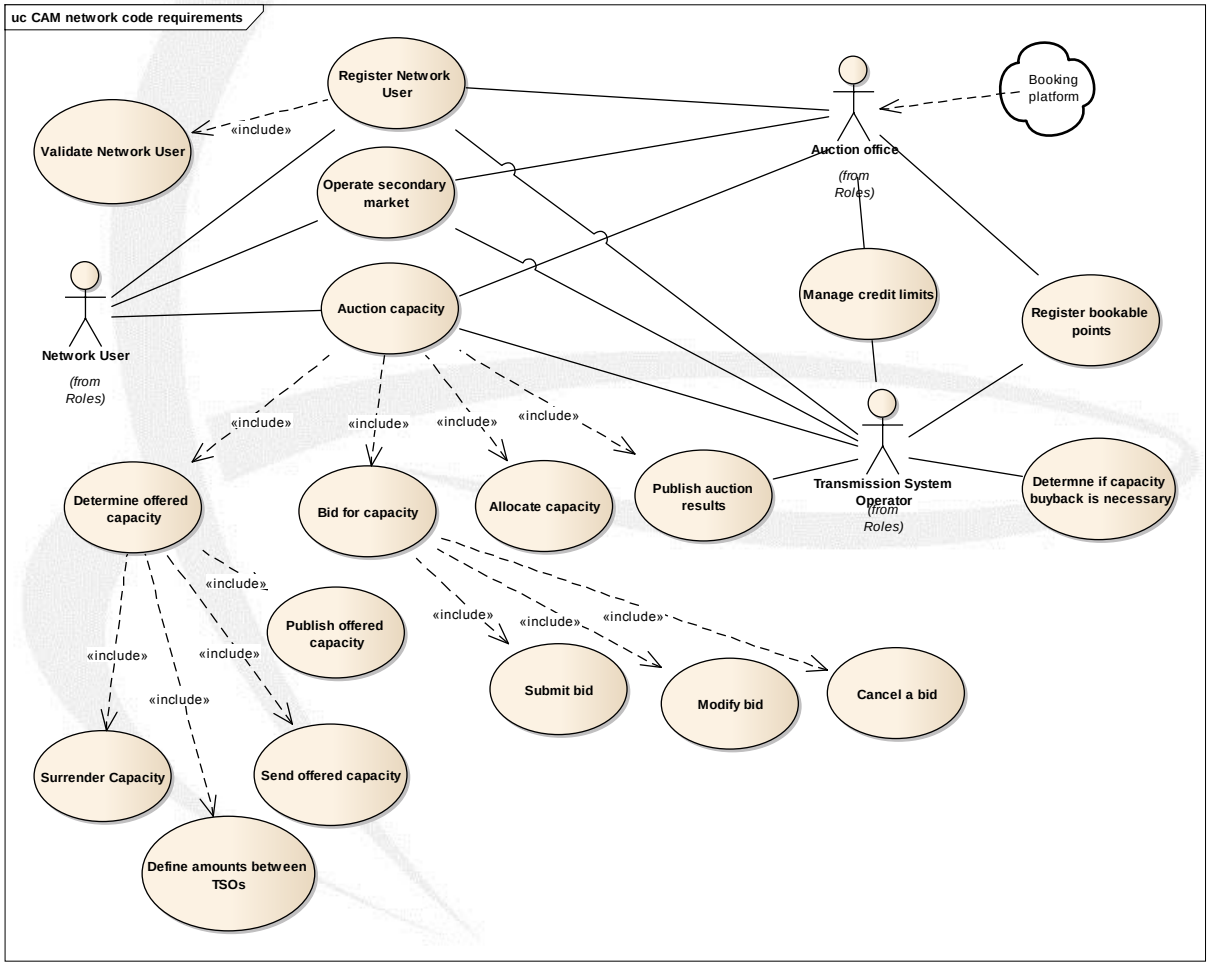



Figure 1: overview of the CAM/CMP process use case

### 3.1.1 List of actors

#### 3.1.1.1 Auction Office

The party that is responsible for the reception of bids and for the allocation of capacity as well as for the management of the booking platform, acting on behalf of Transmission System Operators. One of the involved Transmission System Operators may be designated as the Auction Office.

#### 3.1.1.2 Network User

A Network User is defined in the Regulation No 715/2009 in Article 2, 11. A Network User that has acceded to and is compliant with all applicable legal and contractual requirements that enable him/her to book, trade and use capacity on the relevant Transmission System Operator's network under a capacity contract.

#### 3.1.1.3 Transmission System Operator

A natural or legal person who carries out the function of transmission and is responsible for operating, ensuring the maintenance of, and, if necessary, developing the transmission system in a given area, and, where applicable, its interconnections with other systems. It is also responsible for ensuring the long term ability of the system to meet reasonable demands for the transportation of gas.

#### 3.1.1.4 Booking platform

An application that implements the rules and processes for offering and allocation of all capacity and may permit Network Users to offer and obtain secondary capacity.

It is managed by an Auction Office.

## *3.2 Use case detail*

Besides the aforementioned requirements for coordinated implementation, the further core processes need to be considered as preconditions to the implementation of other requirements arising from NC CAM. It is understood that the registration of the Transmission System Operators is always carried out within the relevant Auction Offices.

### 3.2.1 Register Network User (not referenced in the CAM/CMP regulation)

In order to participate in the auctioning processes to obtain capacity, the Network User and the personnel authorized to use the Booking platform (authorized personnel) need to be registered with the Auction Office and the Transmission System, Operator(s), from whom it seeks to buy capacity.The registration process includes the submission of the individual Network User master data to the Auction Office and the Transmission System Operator(s).

The Network User transmits to the Auction Office the data required by the Auction Office for gaining access to the booking platform. The Network User also transmits to the Transmission System Operator(s) the data required by the Transmission System Operator(s), from whom the Network User would like to get capacity. The new Network User must provide a unique identification, such a EIC code, to the Auction Office and to the Transmission System Operator(s) in order to ensure a unique identifier of the company on the booking platform in place.

The Network User also provides information concerning each of its authorized personnel. Network user accounts or balancing groups may be provided to the Auction office where required by the Transmission System Operator.

After the transfer of the registration data of a Network User, both the Transmission System Operator and the Auction office verifies the data. The Transmission System Operator informs the Network User of the approval/rejection of access to its network.

#### 3.2.1.1 Validate Network user registration

The Auction office after verification forwards the necessary data to the Transmission System Operator for validation.

The Transmission System Operator validates the information received.

The result of the validation is communicated to the Auction office. The Auction office informs the Network User of the approval/rejection of access to the booking platform.

### 3.2.2 Register Bookable Points

Before any capacity can be offered to the market the bookable points need to be defined by the Transmission System Operators and submitted to the Auction Office for the publication on the booking platform. Necessary updates of bookable point data are also included in this process.

A bookable point is defined as the identification, such as EIC code, of the connection point, the “to TSO”and “from TSO” or in the case of one TSO at both sides of the connection point the “to Market area” and the “from Market area”. It may be that the “to TSO” or the “from TSO” is not required in the case of an unbundled product.

The bookable point will then be visible on the booking platform.

### 3.2.3 Auction capacity

This use case permits the auction and the allocation of capacity at an interconnection point using an "ascending clock" or "uniform price" auction mechanism, as described in sections 4.10 and 4.11 of the CAM NC, respectively. In the case the buyback process is carried out through an auction, the same auction process may be used with the exception that the use case “Determine offered capacity” is replaced by the use case “Determine Buyback capacity” to cover the determination of buyback capacity.

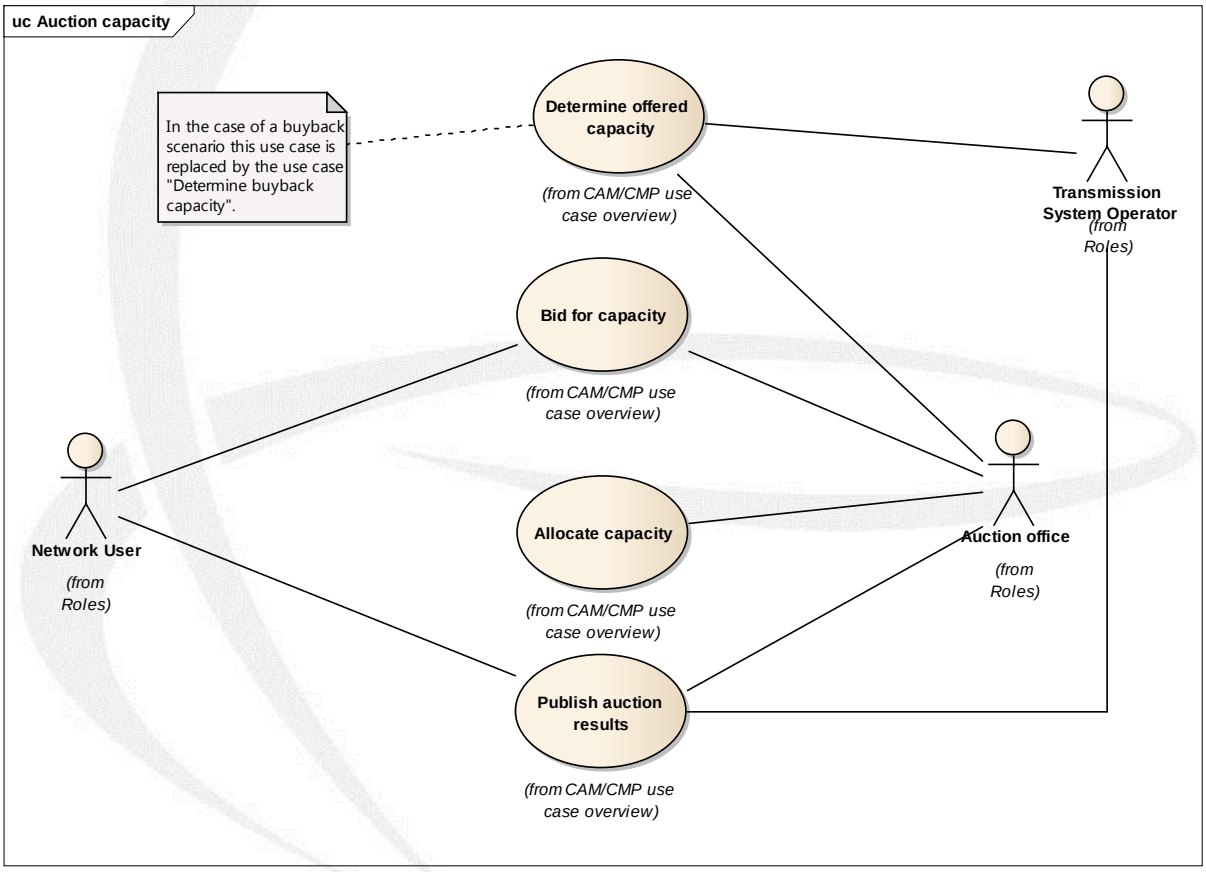



Figure 2: the auction capacity use case

Figure 2 outlines the relations that exist between each of the use cases and the actors.

### 3.2.3.1 Determine offered capacity

The Transmission System Operator determines the capacity that shall be offered to the market for auctioning. The determination of the capacity is carried out through the use case as outlined in the use case in Figure 3.

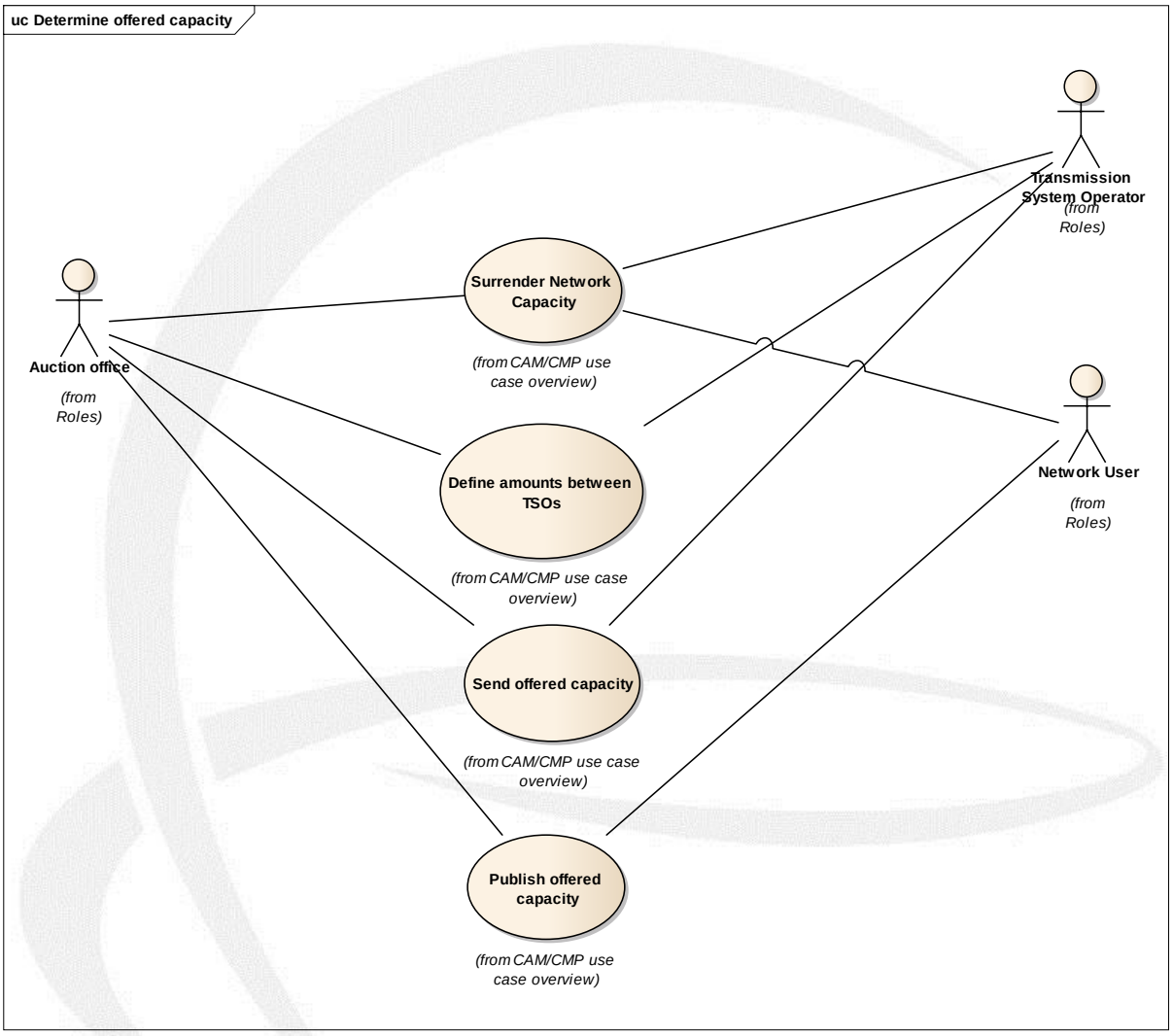



Figure 3: Determine offered capacity use case

Once the Transmission System Operator has defined the Offered Capacity it is transmitted to the Auction Office.

#### *3.2.3.1.1 Surrender capacity*

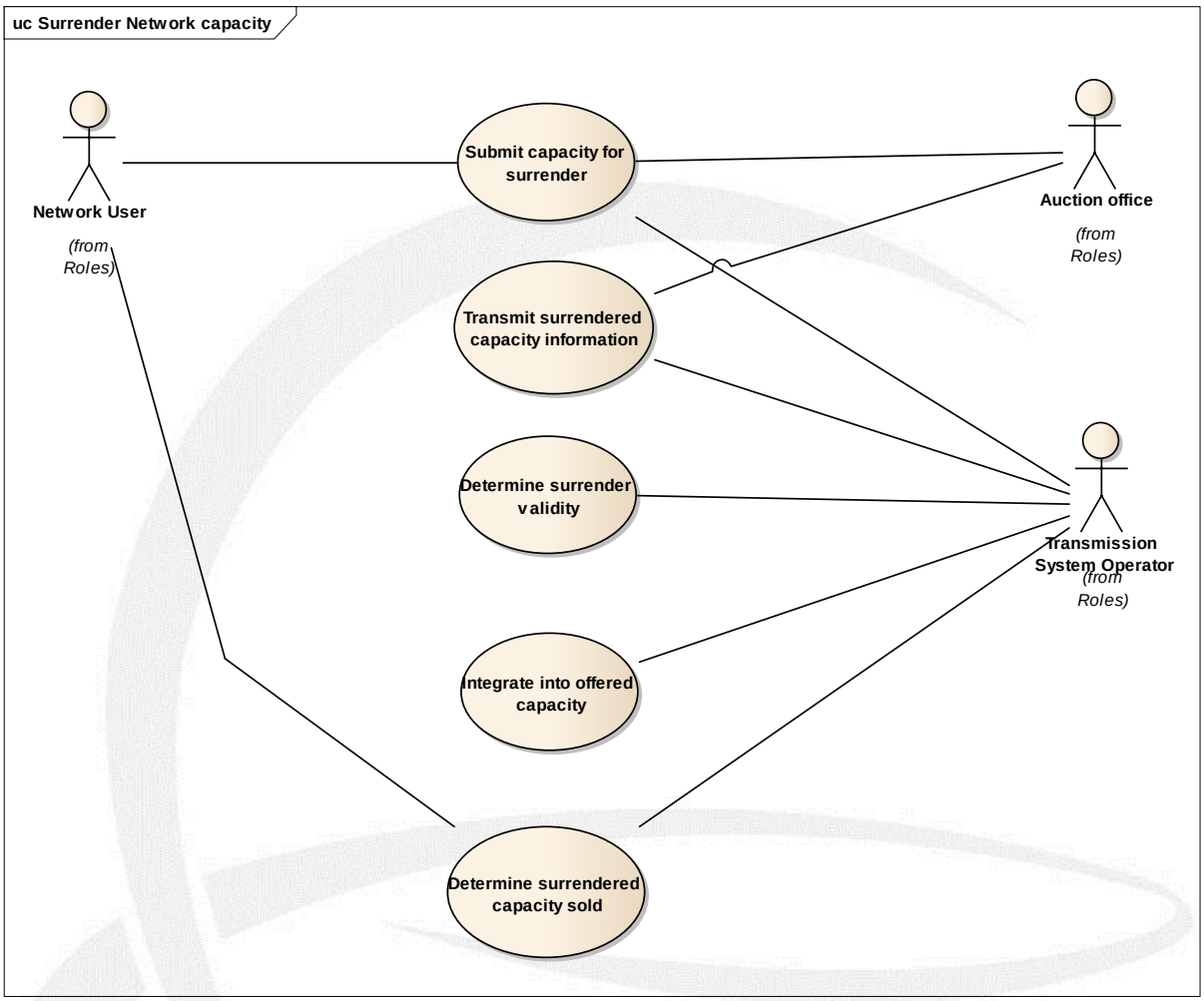



Figure 4: CMP surrender network capacity use case

##### 3.2.3.1.1.1 Submit capacity for surrender

The Network User may surrender capacity to either the Auction Office or directly to the Transmission System Operator(s) for resale at any time. The surrendered capacity must be identified as bundled or unbundled and concerns at least capacity products with a duration longer than a day, subject to the NRA decision.

Bundled capacity shall only be surrendered as bundled.

A bundled or unbundled capacity surrender request must identify the Transmission System Operator(s) as well as their underlying contracts.

##### 3.2.3.1.1.2 Transmit surrendered capacity information

In the case where capacity is surrendered to an Auction Office, the Auction Office transmits the surrendered capacity received to the Transmission System Operator(s).

#### 3.2.3.1.1.3 Determine surrender validity

The Transmission System Operator ensures the validity of all Network Users submission.

#### 3.2.3.1.1.4 Intergate into Offered Capacity

Once the surrendered capacity is validated, the Transmission System Operator integrates the information into the offered capacity.

#### 3.2.3.1.1.5 Determine surrendered capacity sold

The Transmission System Operator allocates the surrendered capacity sold to the Network Users depending on local market rules and informs them of their capacity that has been sold.

### *3.2.3.1.2 Define amount between TSOs*

The Transmission System Operator calculates the capacity to be offered within the Booking Platform.

1st option:

As default rule, the Transmission System Operators shall decide to let the Auction Office determine the bundled and unbundled capacity that makes up the established offered capacity. Each Transmission System Operator at each side of the IP shall inform the Auction Office of the offered capacity. The Auction Office shall apply the lesser rule in order to determine the bundled capacity. The final result must be confirmed before publication by the both Transmission System Operators.

Any differences between the lesser value calculated by the Auction Office and the capacity previously sent by Transmission System Operators can be considered as unbundled capacity and may be auctioned separately.

Such unbundled capacity will be clearly identified by the Auction Office to the Network Users at the time when the capacity is offered.

2nd option:

The use case “Define amounts between TSOs” is used in this case by the Transmission System Operators to define the bundled and unbundled capacity that will make up the offered capacity. The final result is then sent by at least one of the Transmission System Operators to the Auction Office for publication. In case of mismatch then both quantities are rejected.

### *3.2.3.1.3 Send offered capacity*

The offered capacity is sent to the Auction Office (booking platform) by the Transmission System Operator.

#### *3.2.3.1.4 Publish offered capacity*

The Auction Office then publishes the part of the offered capacity that will be auctioned as bundled capacity and the part of the offered capacity that will be auctioned as unbundled capacity.

The Network Users are also informed in the publication of any reserve price and, in the case of ascending clock auctions, the price for the bidding rounds.

### 3.2.3.2 Bid for capacity

For a given auction (in which one capacity product covering a specific period is offered) Network Users submit bids with the amount of capacity required (for the price step announced in the concerned bidding round in the case of an ascending clock auction) and, in the case of uniform price auctions, the price they are willing to pay and they may also indicate the minimum capacity that is acceptable in the case of a reduced allocation.

In the case of an ascending clock auction, the Network user may submit only one valid bid per bidding round. This bid may be modified or withdrawn during the course of bidding round. The maximum volume bid in any Bidding Round per Registered Network shall be equal or smaller to the offer of capacity in a specific round.

In the case of a uniform price auction, a maximum of 10 bids may be entered per Network User per auction.

The Transmission System Operator shall rank all bids relating to a given standard capacity product according to their bid price, the highest price ranking first. Following the ranking of the bids, capacity shall be allocated to the bids in function of their price ranking.

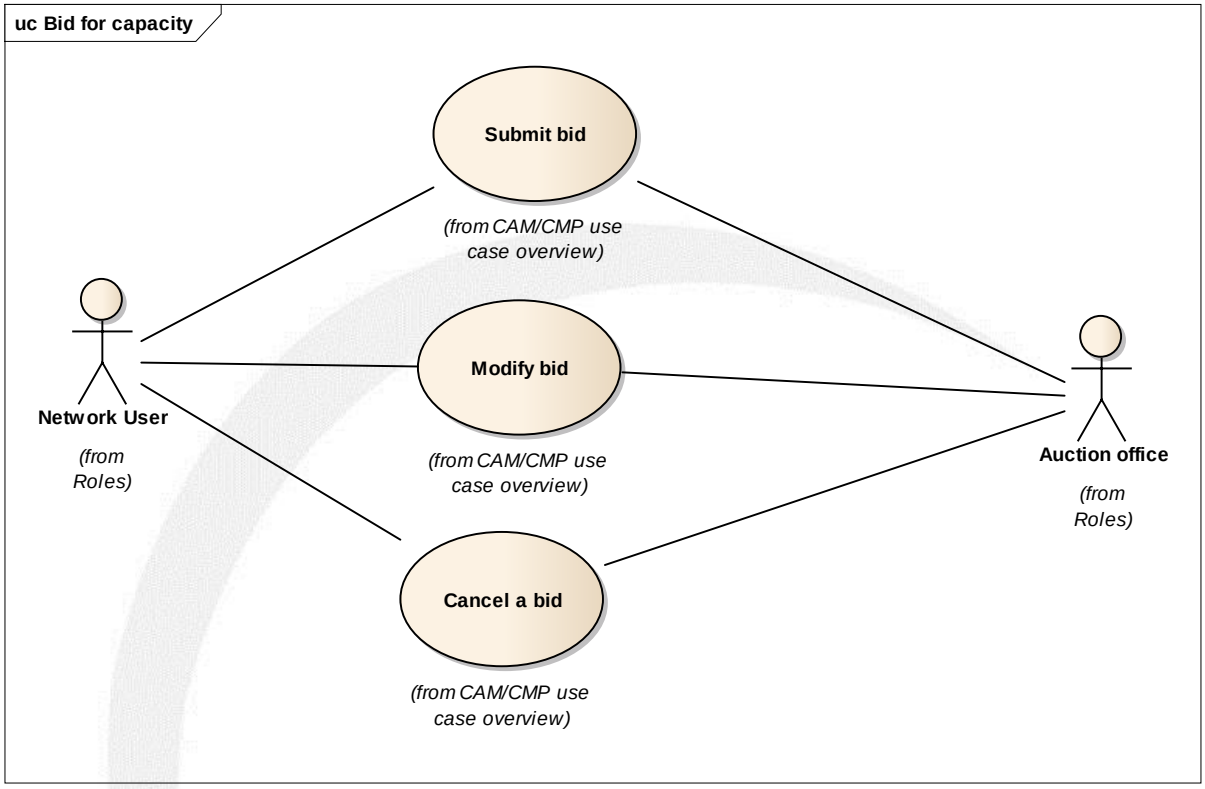



Figure 5: bid for capacity use case

#### *3.2.3.2.1 Submit bid*

The Network User submits bids for an amount of capacity for the price step announced in the concerned bidding round, in the case of an ascending clock auction, or an amount of capacity (requested and minimum)and price, in the case of a uniform price auction. Each bid shall refer to a given product within a given auction. In an ascending clock auction, such bids shall respect the rules on bid quantities set out in sections 4.10 5), 4.10 8) and 4.10 16) of the CAM NC.

#### *3.2.3.2.2 Modify bid*

As long as the bidding round is open, a Network User may modify the amount of capacity and (where relevant) the price associated with that bid.

#### *3.2.3.2.3 Cancel a bid*

The Network User may at any time before the closure of a bidding round cancel a bid placed earlier in that round, which will then no longer be available for modification during future bidding.

### 3.2.3.3 Allocate capacity

The capacity is allocated respecting market rules, as set out in articles 4.10 20 (in an ascending clock auction) and 4.11 6 - 4.11 10 (in a uniform price auction) of the CAM NC.

### 3.2.3.4 Publish auction results

Network Users are informed by the Auction Office of the results of the bids that they have submitted.

The Auction Office informs the market of the final aggregated auction information.

The Auction Office provides the Transmission System Operators with the detailed auction results.

## 3.2.4 Determine if capacity buyback is necessary

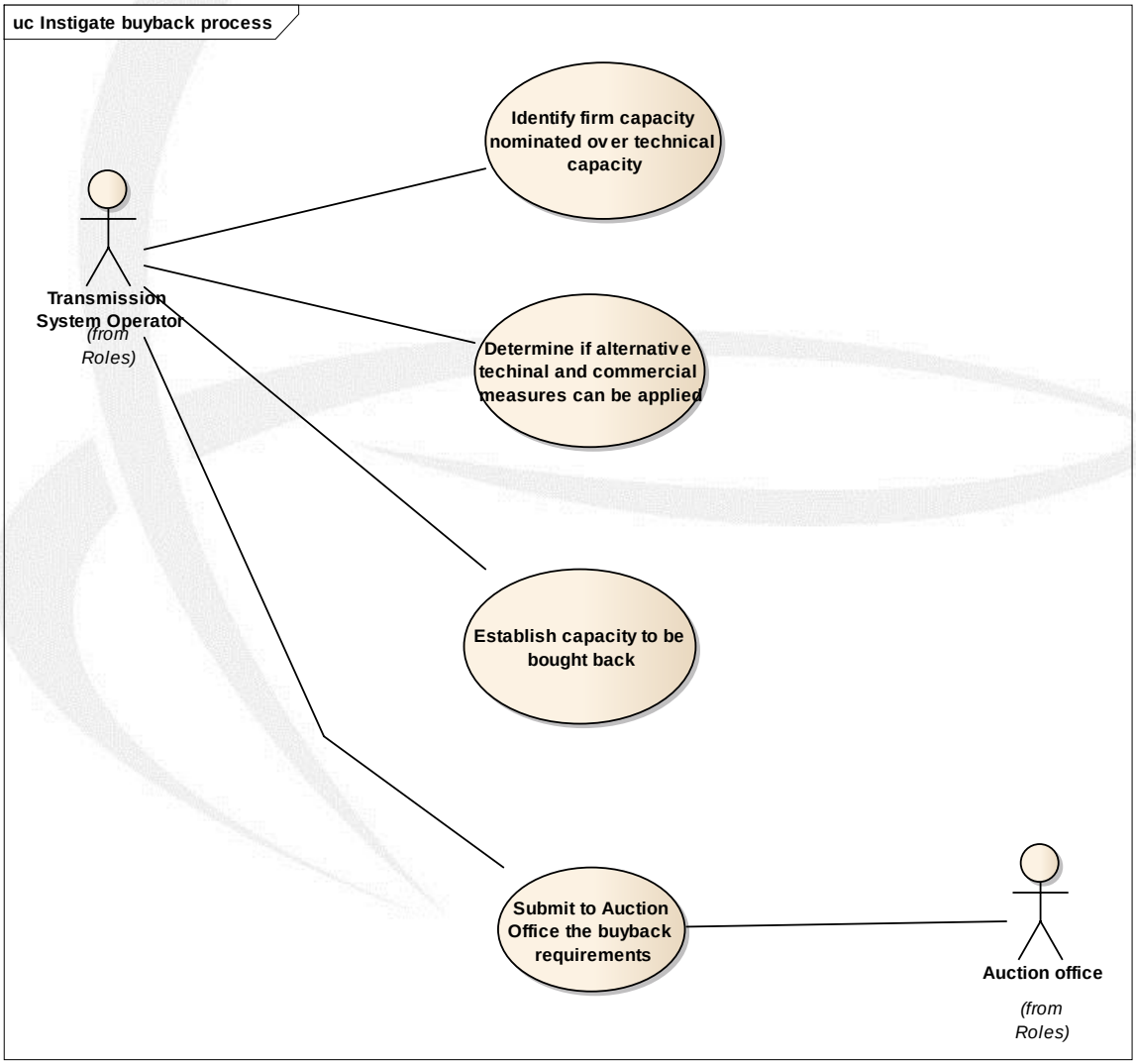



Figure 6: Buyback use case

#### 3.2.4.1 Identify firm capacity nominated over technical capacity

The Transmission System Operator shall identify firm capacity nominated over technical capacity.

#### 3.2.4.2 Determine if alternative technical and commercial measures can be applied

The Transmission system Operator then determines if any alternative technical and commercial measures can be applied.

#### 3.2.4.3 Establish capacity to be bought back

The Transmission System Operator determines the amount of capacity that will have to be bought back to re-establish the situation. The Transmission System Operator is unaware of whether this requirement can be satisfied by bundled or unbundled auctioned capacity.

#### 3.2.4.4 Submit to Auction Office the buyback requirements

The Transmission System Operator shall send capacity to be purchased to the Auction Office so that a buyback auction can be put into place. The Transmission System Operator may include some restrictions, for example:

- the maximum price the Transmission System Operator is willing to pay for buying back the capacity
- the list of Network Users that are allowed to participate in the buy-back procedure

As an alternative to the buyback auction the Transmission System Operator may buy back the capacity by playing the role of a Network User on the secondary market.

The use cases of submit bid, modify bid and cancel bid are the same except that the auction type is generally a uniform price auction where the seller may provide in the bid the capacity for sale and its price. Local market rules may determine that an ascending clock auction shall be used.

### 3.2.5 Operate secondary market (not referenced in the CAM/CMP regulation)

This section covers Secondary market functionalities handled by capacity booking platforms as well as the transfer of capacity rights at the conclusion of each trade.

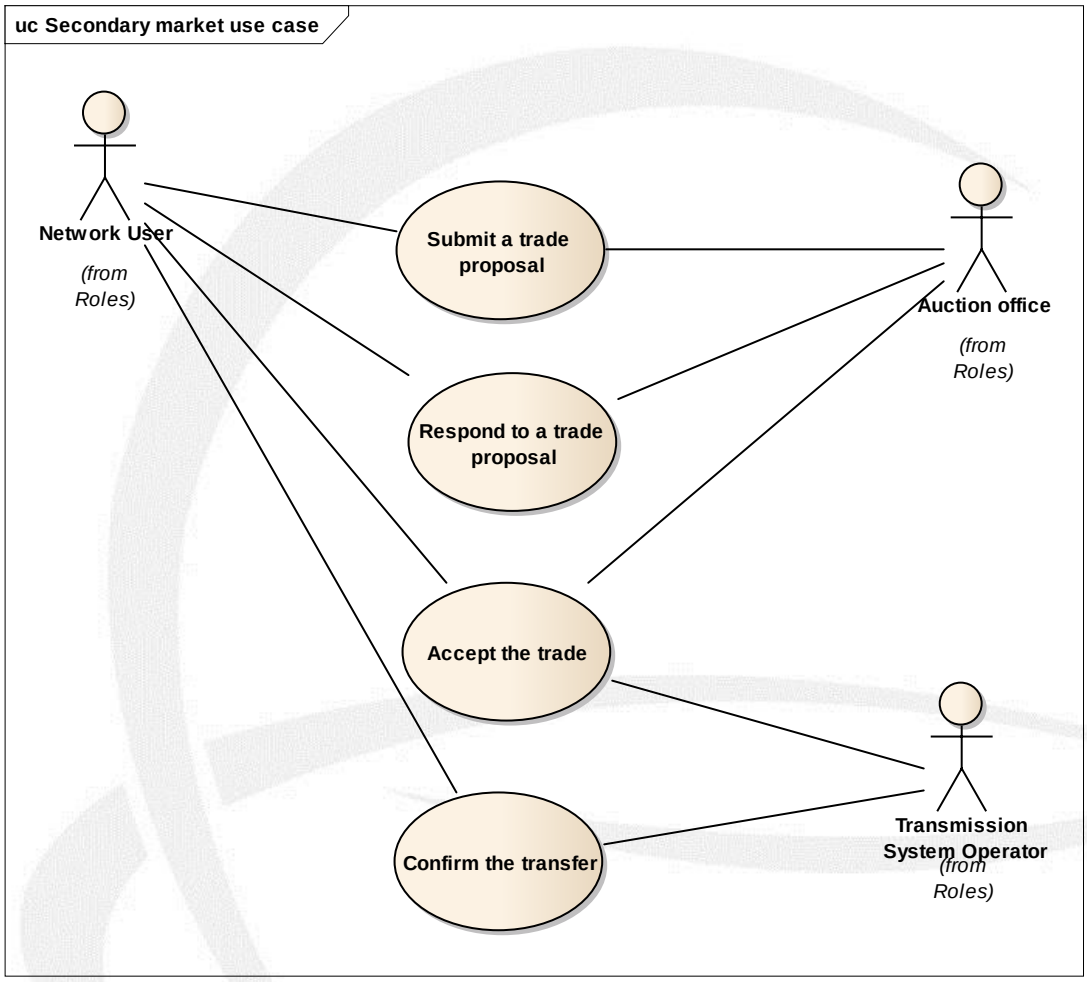



Figure 7: Secondary market capacity

#### 3.2.5.1 Submit a Trade Proposal

A Network User has the possibility to sell or buy capacity to other Network Users

Consequently a Network User can submit a trade proposal to the secondary market to sell or buy capacity concerning a connection point. The proposal shall include information about the bookable point, capacity, period, availability type of capacity, bundled/unbundled, nature of transfer(full or partial transfer of rights), price and in case it is a proposal to sell capacity the identification of the related capacity contract incl. issuer of the contract, the duration over which the trade is valid. The trade proposal can be updated/withdrawn by the submiter.

#### 3.2.5.2 Respond to a Trade Proposal

After the publication of a trade proposal Network Users can respond to it by conceding the offer at a given price or by proposing capacity at a requested price.

#### 3.2.5.3 Accept the Trade (conditional to Transmission System Operator approval)

If an appropriate response to a trade proposal is received from a Network User, the submitter of the trade proposal can close the trade by accepting the response. Once the response to the trade proposal is accepted, it is sent to the relevant Transmission System Operator(s) for confirmation.

#### 3.2.5.4 Confirm a Trade

The Transmission System Operator(s) must be informed about the trade by the involved Network Users or by the Auction Office on their behalf. The Transmission System Operator(s) confirms or rejects the transfer after carrying out the necessary validity checks.

The information about the confirmation or rejection of a transfer is sent to the involved Network Users.

### 3.2.6 Manage credit limits (not referenced in the CAM/CMP regulation)

In order to ensure that a Network User is permitted to purchase a given quantity of capacity during the auction process or a secondary market transaction a Transmission System Operator may inform the Auction Office of the permitted financial limits for a Network User if required.

The Transmission System Operator indicates also two essential pieces of information:

- Information concerning the set of rules (herein after called as “Framework”) in which a Transmission System Operator identifies each product (auction and secondary trades) subjected to credit limit verification and the multiplication factor to be applied to a Network User’s bid associated to a specific product.
- Information concerning the Network User validity period(s) of the limits and associated credit value(s).

The Transmission System Operator informs the Auction Office of the Network User credit limits every time there is an evolution to them.

The financial value for a given Network User’s bid associated to a specific product is determined by the multiplication of the unitary price (reserve price + Network User’s bid), the period associated with the product and the multiplication factor of the product. Before the acceptance of a Network User’s bid, the Auction Office verifies if the Network User’s credit limit is equal to or greater than the financial value of the bid. If this is the case, the Auction Office accepts the bid and adjusts the credit limit after each allocation. The Auction Office provides this information to the Transmission System Operator.

A Network User may have a credit limit and an associated validity period. The credit limit covers all the guarantees that the Network User may hold.

The Transmission System Operator may define several frameworks. Each framework includes the following information: name of the framework; product type; credit factors which apply to the products.

The determination of whether or not a credit limit is exceeded is carried out on a per bid basis where for the product in each framework that the Transmission System Operator decides to apply credit limit verifications, is equal to or greater than the financial value of the bid. If this check is not positive then the credit limit is deemed to be exceeded and the bid is rejected.

When a bid is accepted the credit limit for the Network User is modified accordingly.

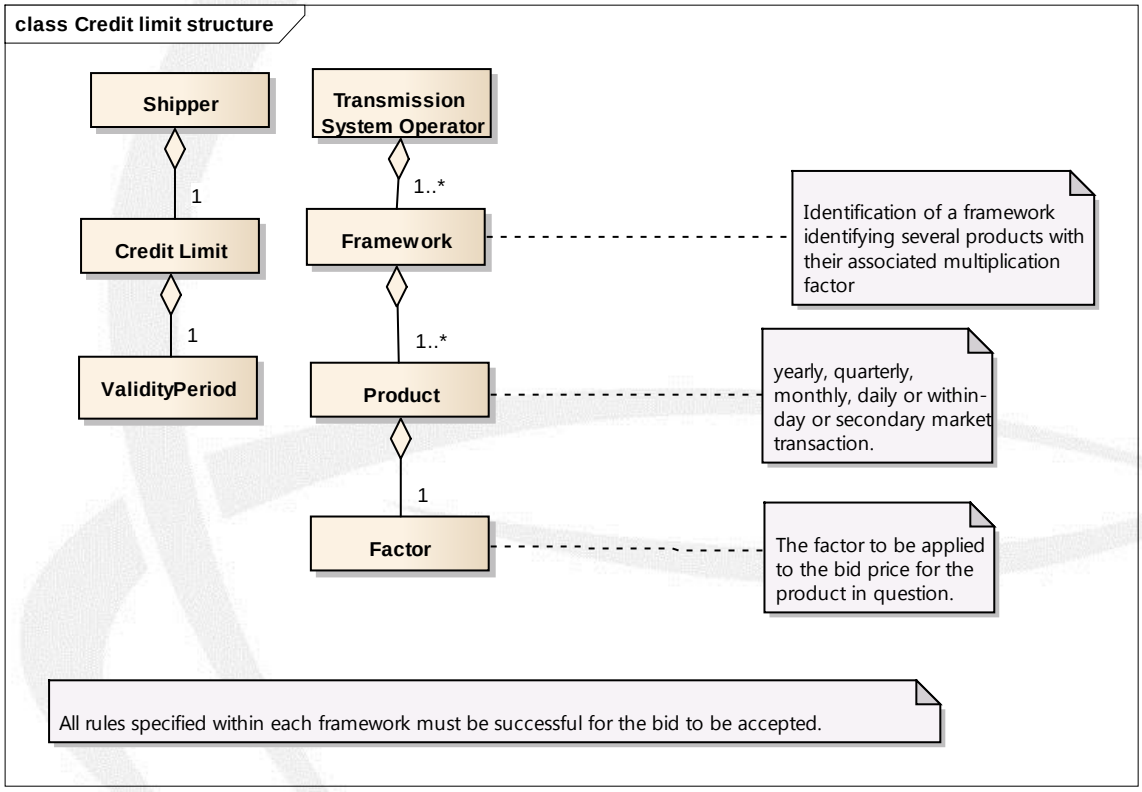
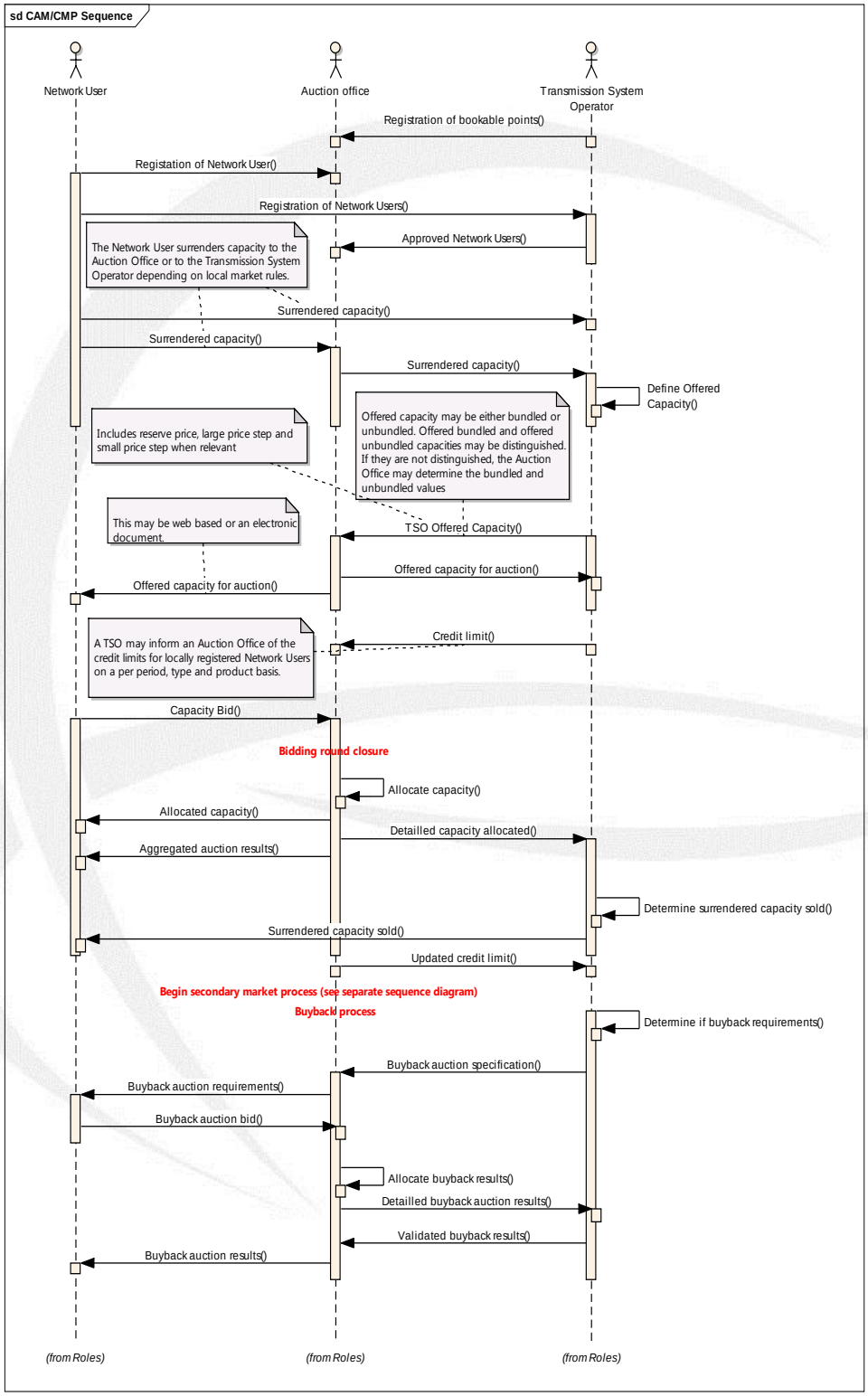



Figure 8: Credit limit requirements

449 ## *3.3 Information flow definition*

450 ### 3.3.1 CAM/CMP Sequence flow

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452 Figure 9: Information flow sequence

#### 3.3.1.1 Bookable point registration

The Transmission System Operator provides the Auction Office with the information of all the connection points that will be used in capacity auctions and where capacity can be booked.

#### 3.3.1.2 Network User registration

Prior to operating on the market a Network User must register with the Transmission system Operator and the Auction Office if the Network User wishes to participate in capacity auctions.

#### 3.3.1.3 Approved Network Users

The Transmission System Operator will validate and approve the Network User's participation. The Transmission System Operator informs the Auction Office of the Network Users that are permitted to participate in capacity auctions.

#### 3.3.1.4 Surrender capacity rights

Prior to a given auction period a Network User may surrender capacity rights that he holds for the intended period of the auction.The capacity to be surrendered is sent either to the Auction Office for transmission to all involved Transmission System Operators or to the Transmission System Operator(s). Once verified the capacity will be incorporated into the total offered capacity for the next auction product.

#### 3.3.1.5 Offered capacity

The capacity on offer shall be sent by each Transmission System Operator to the Auction Office in compliance with the bussines case defined in section **Error! Reference source not ound.**.

The Auction Office assigns an auction identification to the offered capacity provided by the Transmission System Operators.

The Auction office informs the TSOs of the products that will be auctioned and publishes the information for use by the market along with any price step information if the auction concerns an ascending clock auction.

#### 3.3.1.6 Credit limit

The Transmission System Operator may inform the Auction Office of credit restrictions that have been placed on Network Users in the context of a contract. The Auction Office ensures that the cumulative purchase of auction products and secondary transactions does not exceed the Network Users credit limit. (refer to section 3.2.6)

The credit limit information may be sent to the Auction Office at any time to enable more conclusive verifications be carried out within the auctioning system.

At the end of every purchase the Auction Office provides the updated credit limit of all relevant Network Users to the Transmission System Operator.

#### 3.3.1.7 Capacity bid

Network Users submit bids in accordance with the type of auction being run. Before a uniform price auction or an ascending clock bidding round closes they may submit modifications to their bids or cancel the bid completely if the auction process allows it. (refer to section 3.2.3.2)

#### 3.3.1.8 Allocated capacity

The Auction Office allocates offered capacity to a Network User's bid and informs the Network User of the quantity and price allocated according to the given auction process. (refer to section 3.2.3.3)

#### 3.3.1.9 Detailled capacity allocated

Once the capacity allocation has terminated the Auction Office transmits all the Network User allocations to the Transmission System Operator. (refer to section 3.2.3.4)

#### 3.3.1.10 Aggregated auction results

This represents the total aggregated values for the auction (at least the clearing price and total capacity sold) and is intended for use by any market participant. (refer to section 3.2.3.4)

#### 3.3.1.11 Surrendered capacity sold

When the Transmission System Operator receives the detailed results of the auction it determines if the capacity sold is greater than the Transmission System Operator's available technical capacity. If this is the case the Transmission System Operator allocates the remaining sold capacity to the Network Users that have surrendered capacity. (refer to section 3.2.3.1.1.5)

#### 3.3.1.12 Buyback requirements

In the case where it is necessary to buy back capacity via an auction, the Transmission System Operator determines how much capacity should be bought back and a cap price for any purchases. (refer to section 3.2.4)

#### 3.3.1.13 Buyback auction bid

The bidding procedure will be the generally the same as carried out for a uniform price auction. Local market rules may determine that an ascending clock auction shall be used.

#### 3.3.1.14 Allocate buyback results

Once the buyback auction closes the Auction Office verifies the bids received and transmits the verified bids to the Transmission System Operator.

The Transmission System Operator validates the bids received and sends the allocated bids to the Auction Office. The Auction Office distributes the finalised results.

In the case where bundled capacity has been sold back the adjacent Transmission System Operator is informed of the sale.

### 3.3.2 Secondary market sales

Capacity may be sold on a secondary market. Bundled capacity bought in an auction shall be sold on the secondary market as bundled capacity. Unbundled capacity on both sides of an interconnection point may be bundled in the secondary market.

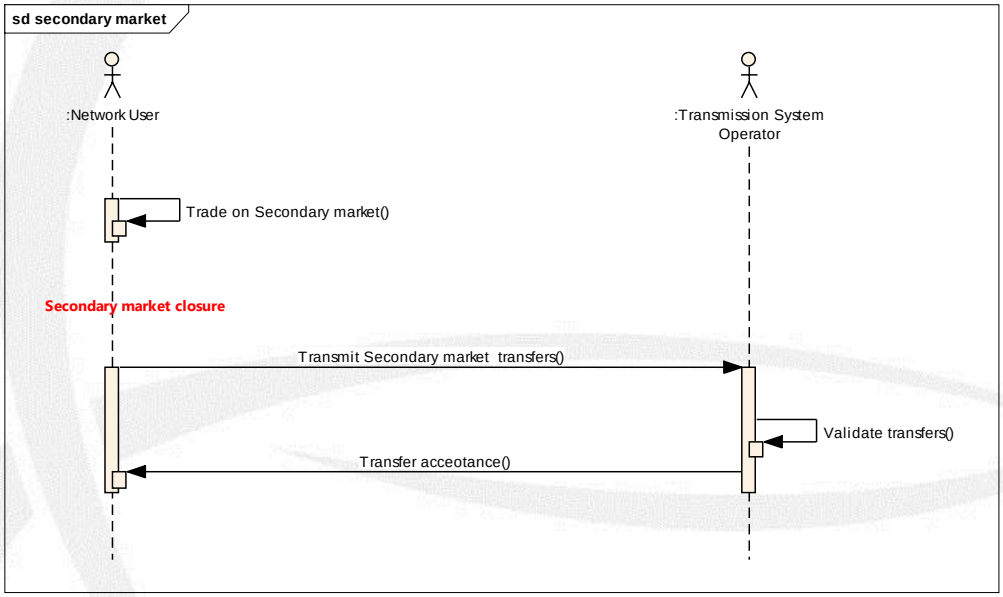



Figure 10: Secondary market sequence

If capacity is sold on the secondary market the Registered Network User that sold the capacity must inform the Transmission System Operator of the sale.

The Transmission System Operator validates the transfer information. Once the transfer submission is deemed valid the Transmission System Operator confirms the transfer to the new holder of the capacity.

In the case of error the Registered Network User is informed and takes the necessary corrective action.

## 3.3.3 CAM/CMP Workflow

### 3.3.3.1 General Acknowledgement process

#### *3.3.3.1.1 Business process definition*

The acknowledgment business process is generic and can be used in all the energy market business processes at two levels:

- System level: To detect syntax errors (XML parsing errors, etc.);
- Application level: To detect semantic errors (invalid data, wrong process, etc.).

If there is a problem encountered at the first level, then a technical acknowledgement may be sent to inform the originator of the problem.

If errors are encountered at the second level or if the application can successfully process the information, then an application acknowledgement may be sent to inform the originator of the situation.

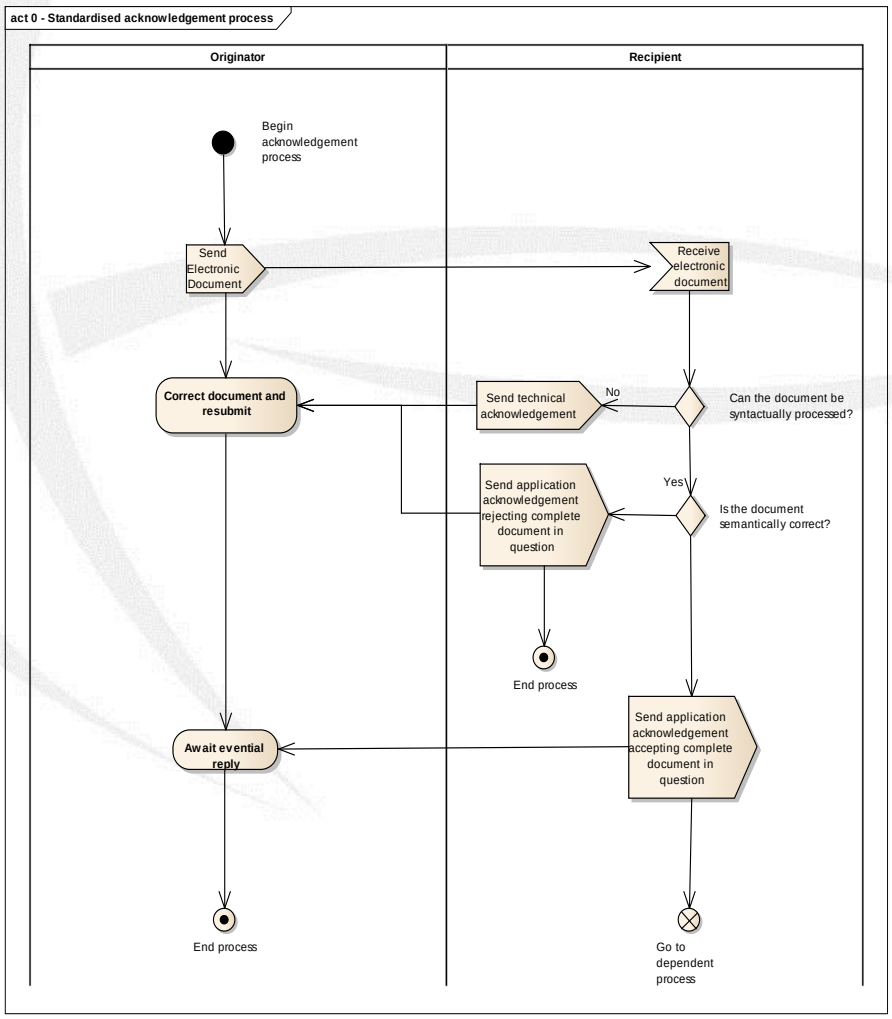



Figure 11 – Acknowledgement process

#### 3.3.3.1.1.1 Technical acknowledgment

A technical acknowledgement occurs when an XML document is received that cannot be correctly processed for submission to the application. Such an error could occur for example whenever the XML parser cannot correctly parse the incoming document. Other instances could be the incapacity to correctly identify the originator of the document in relation to the process requested.

In such a case a technical acknowledgement can be sent to the document originator providing the information that the XML document in question cannot be correctly processed by the system.

#### 3.3.3.1.1.2 Application acknowledgment

Within each business process of the gas market, business rules are to be defined stating whether or not an application acknowledgment is to be sent upon reception of an electronic document.

In particular, where the originator is in the role of a Transmission System Operator and the recipient is in a "market participant" type role, all electronic documents sent by entities in the role of a Transmission System Operator shall be considered as received and correct, and the acknowledgement process is not required unless an acknowledgment document is required for a specific purpose.

Otherwise, upon reception, checks are to be carried out at the application level to assess that the received document can be correctly processed by the application. The originator is informed that:

- Its document, that is stated as valid after this verification, is ready to be processed by the reception of an acknowledgement document accepting the complete document in question;
- Its document is rejected for processing by the reception of an acknowledgement document rejecting the complete document in question with details on the level of errors.

### 3.3.3.2 Bookable point Adminstration process

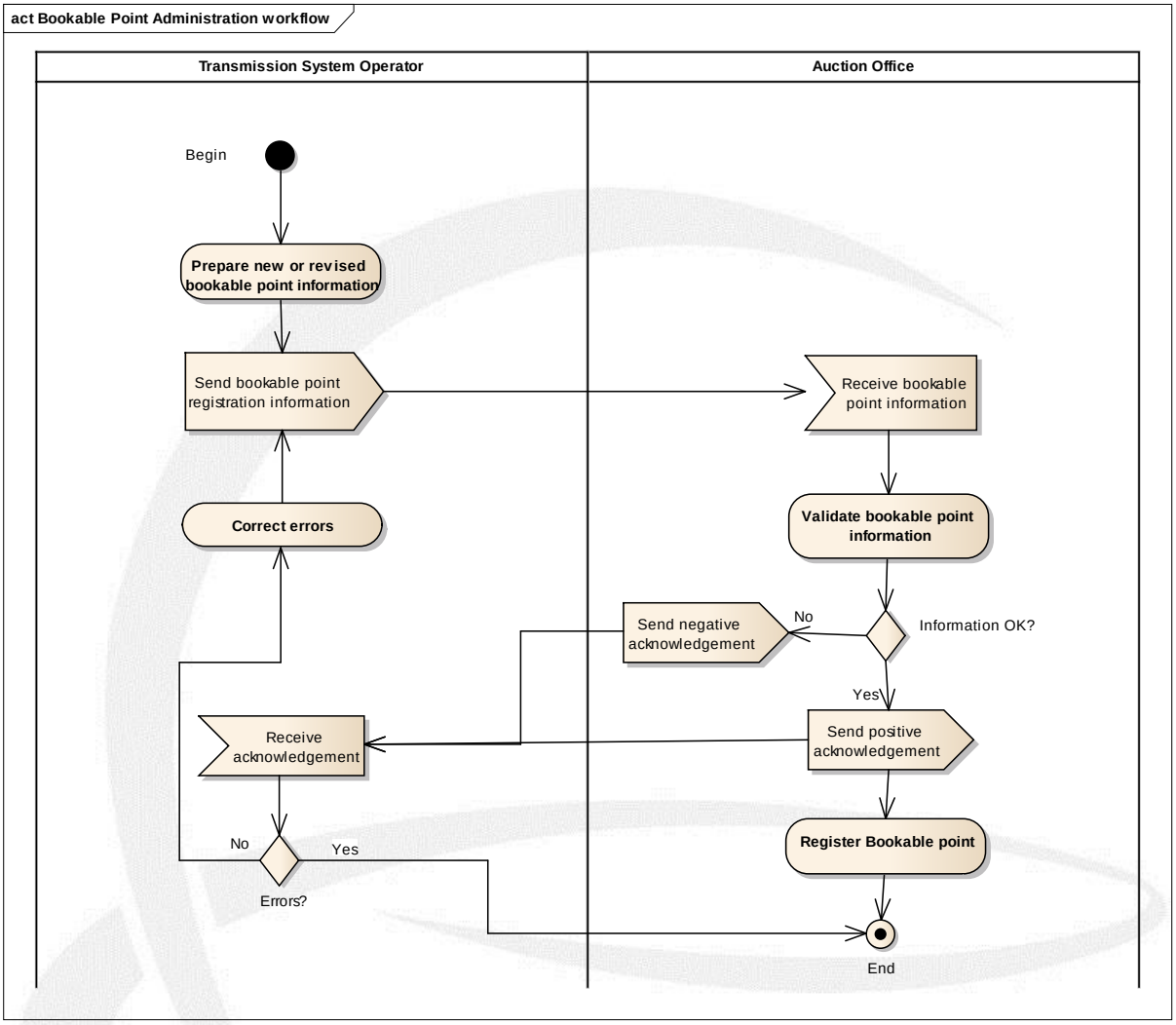
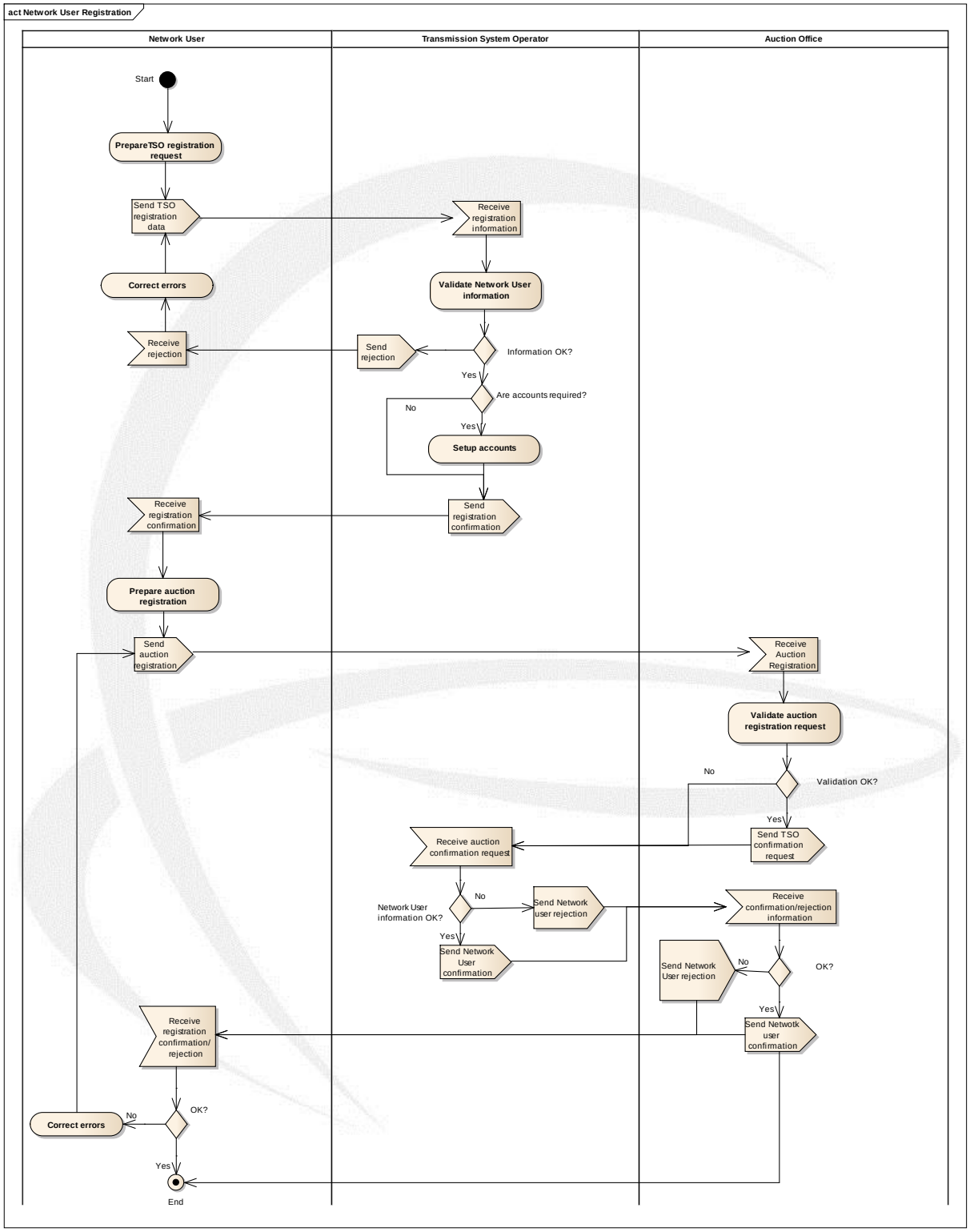



Figure 12: Bookable point Adminstration workflow

For the publication of Bookable points on the booking platform the Transmission System Operator sends to the Auction Office the data for each Bookable point, where capacity is going to be sold. This includes the data for a new Bookable point as well as data updates for an existing and already published Bookable point.

586 ### 3.3.3.3 Network User Registration process

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588 Figure 13: Network User Registration workflow

The registration process begins with the submission of the Network user registration information to the Transmission System Operator.

The Transmission System Operator validates the Network user information and if accounts/balancing groups are required these are set up and communicated to the Network user along with the acceptance of the registration.

The Network user prepares the auction registration which includes at least one authorized person and one Transmission system operator identification and it may include account/balancing group information.

The Auction office validates the registration data and once valid he requests the validation/confirmation to the identified Transmission system operator.

The Transmission system operator confirms/rejects the confirmation request. Once confirmed the registration information is then sent to the Network user.

### 3.3.3.4 Offered capacity process

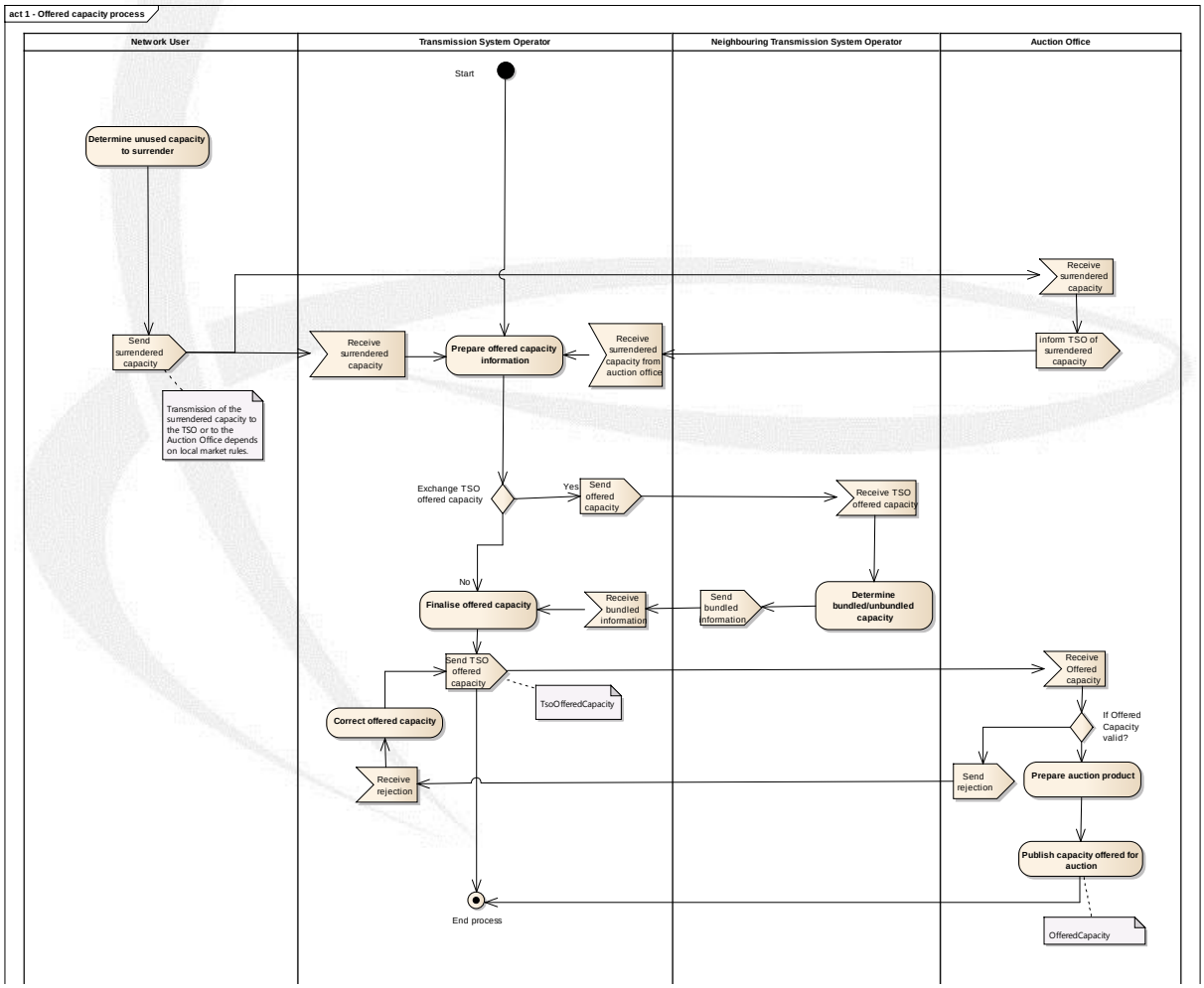



Figure 14: Offered capacity workflow

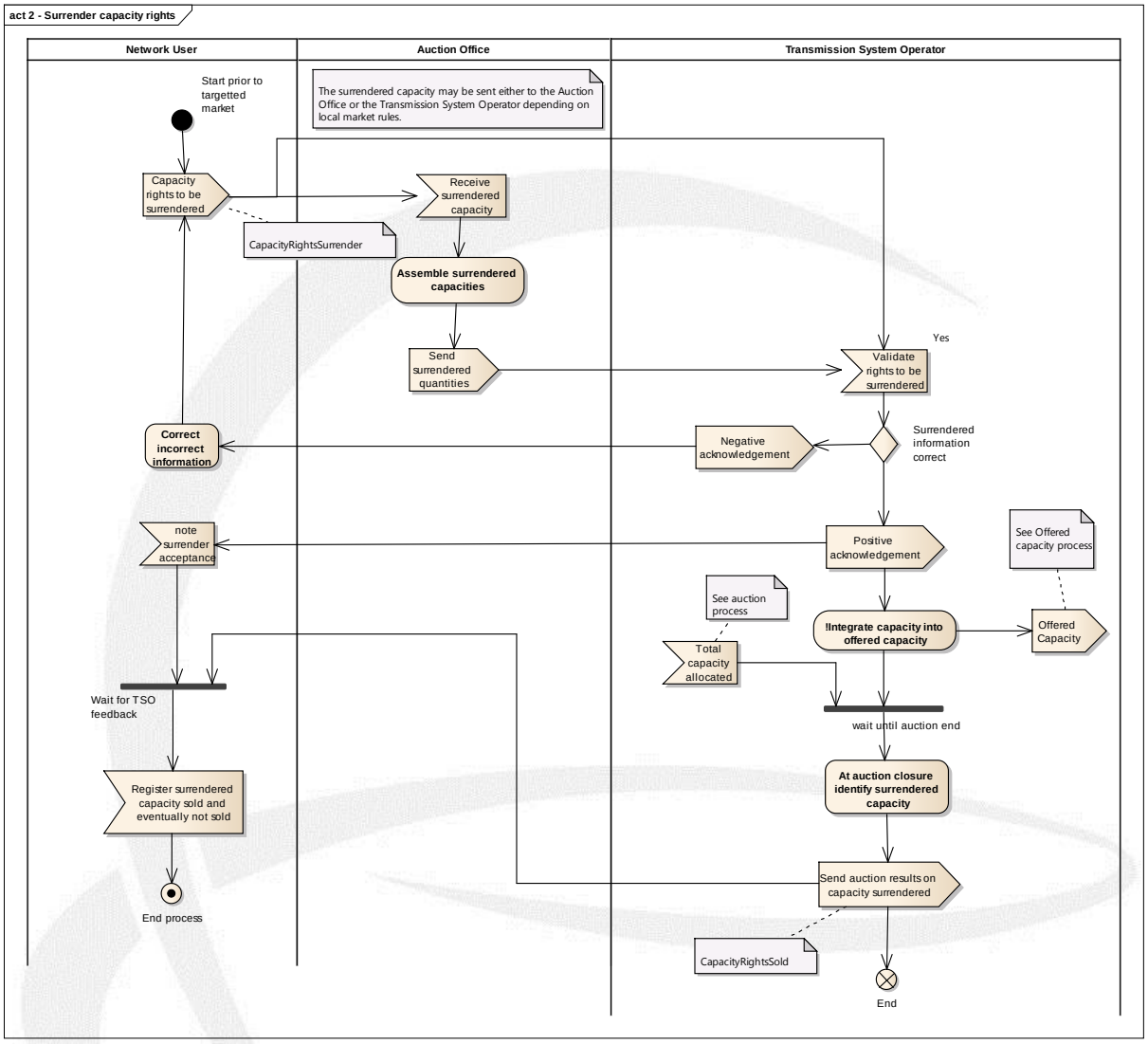
The determination of offered capacity begins on a cyclic basis depending on the standard capacity product.

The Transmission System Operator(s) send(s) the offered capacity to the Auction Office according to the options described in point 3.2.3.1.2.

For a given market situation a Transmission System Operator may provide the Auction Office with credit limitations of the Network Users for the products to be auctioned or for secondary transactions between Network Users. This information will be used by the Auction Office to ensure the legitimacy of the bids and the secondary trades (only in the case of Network Users that buy capacity).

The Auction Office then makes this offered capacity information available to the market in the appropriate manner (web publication, download capability, etc..).

615 ### 3.3.3.5 Surrender capacity process



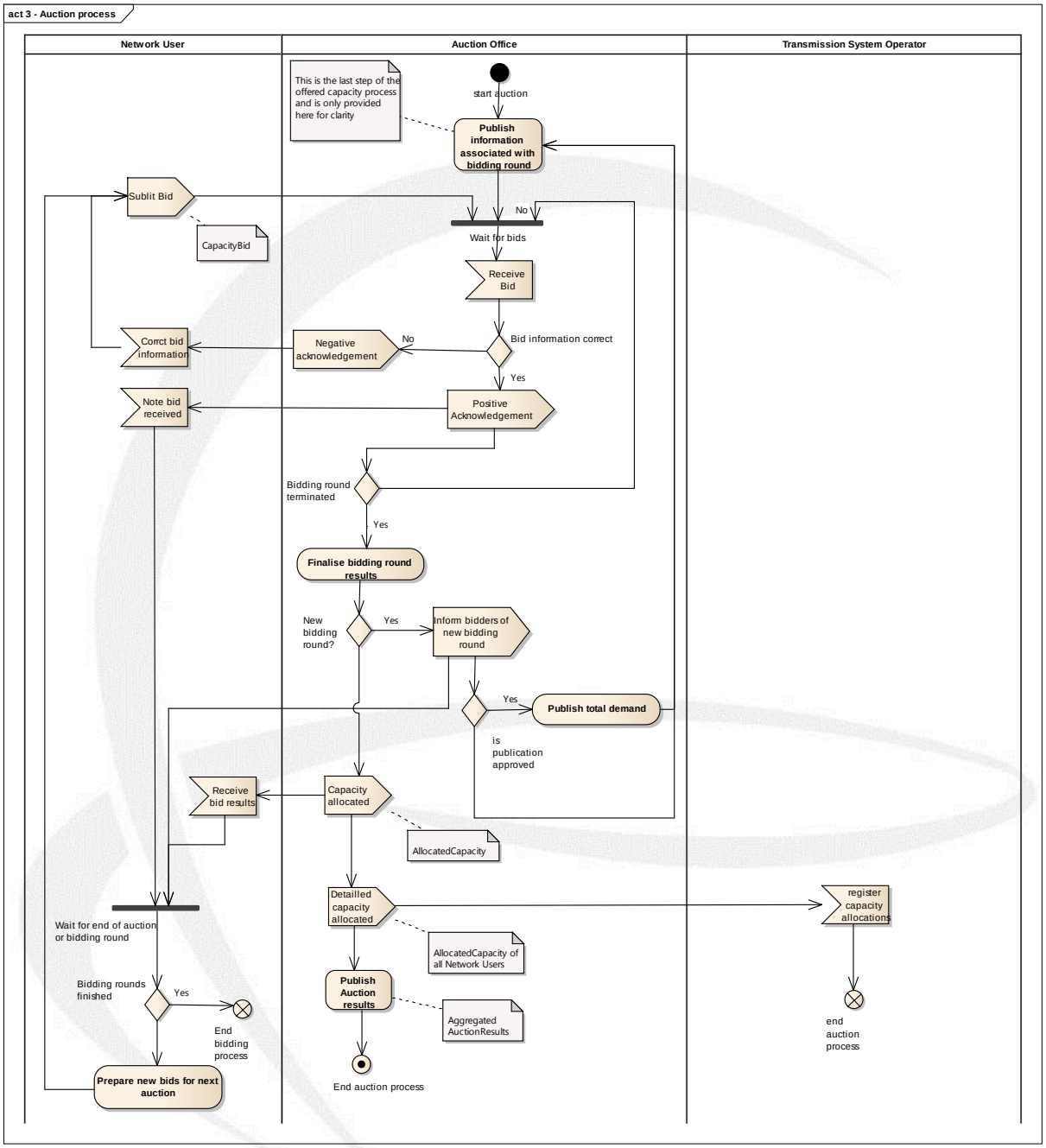

616
617 Figure 15: Surrender capacity process

618 If a Network User has more capacity than needed, the excess may be surrendered to the
619 Transmission System Operators or to the Auction Office who sends the assembled
620 surrendered capacities to the relevant Transmission System Operators for inclusion in the
621 offered capacity.

622 The Transmission System Operator will ensure that the capacity that has been surrendered is
623 correct (bundled capacity not split, capacity available, etc). If everything is in order the
624 capacity is integrated into the offered capacity.

625 When the auction is completed, the Transmission System Operator determines the part of
626 the surrendered capacity that has been sold and informs the Network User of the outcome.

627 ### 3.3.3.6 Auction process




628
629 **Figure 16: Auction workflow**

630 Once the Auction Office has published the offered capacity to be auctioned, and the auction
631 has opened, the Network User may submit bids to the Auction Office.

632 The Auction Office validates each bid and informs the bid submitter of the outcome of the
633 validation process. In the case of a rejection, the Network User may correct the bid
634 information and resubmit it to the Auction Office before the bidding round closure.

In the case of the bid being successfully validated the Network User awaits the outcome of the auction. However, during the bidding round it is possible for the Network User to submit additional bids in the case of uniform price auctions, to make modifications to existing bids or to cancel an existing bid.

The Auction Office manages the bids received and any changes provided until the bidding round closes.

Once the bidding round closes, the Auction Office determines the situation between the capacity requested and the capacity offered.

If, in the case of an ascending clock auction, there is a situation of excess demand the Auction Office initiates another bidding round with a new price step.

A Transmission System Operator can send to the Auction Office a request to cancel an ongoing auction due to a force majeure. The Auction Office cancels the auction and informs all involved Network Users about the auction cancellation.

Prior to beginning the new bidding round, the Network Users that participated in the previous bidding round are informed that a new bidding round will take place with a new price step. In addition information on the previous bidding round may be published if this is authorised by the Transmission System Operators.

At the closure of the auction, the Auction Office allocates the capacity respecting market rules and informs each Network User of the outcome of the auction.The Auction Office also provides the complete list of allocations to the Transmission System Operators.

In a final step the Auction Office publishes the results of the auction.

The bidding in the buyback auction takes place in a similar fashion as an ordinary auction. When the auction closes the Auction Office processes all the bids and then may provide the list of validated bids to the Transmission System Operator. In this case the Transmission System Operator verifies the bids received and provides to the Auction Office the list of successful bids.

The Auction Office then informs the Network Users of their successful bids.

### 3.3.3.7 Secondary market transfer process

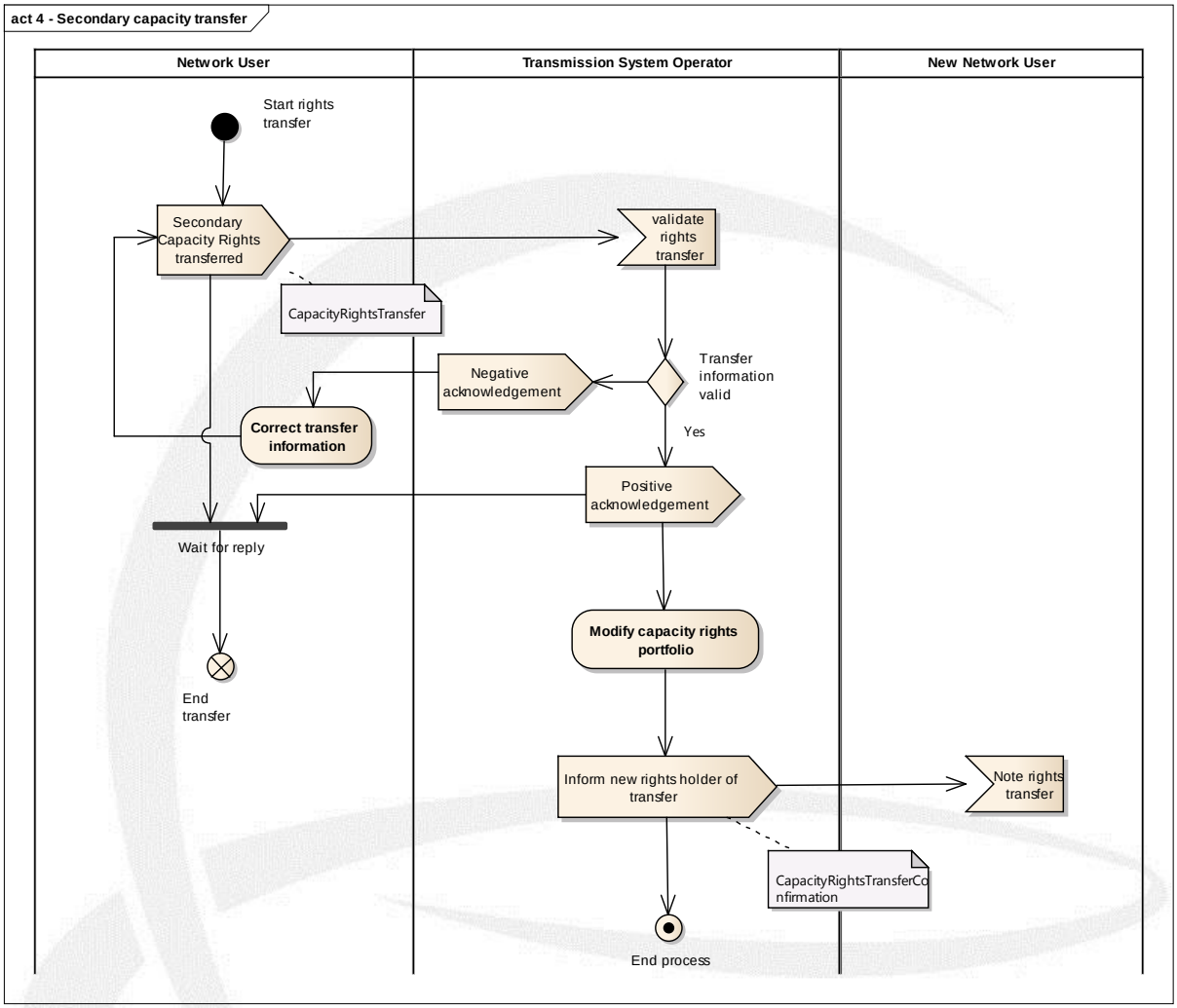


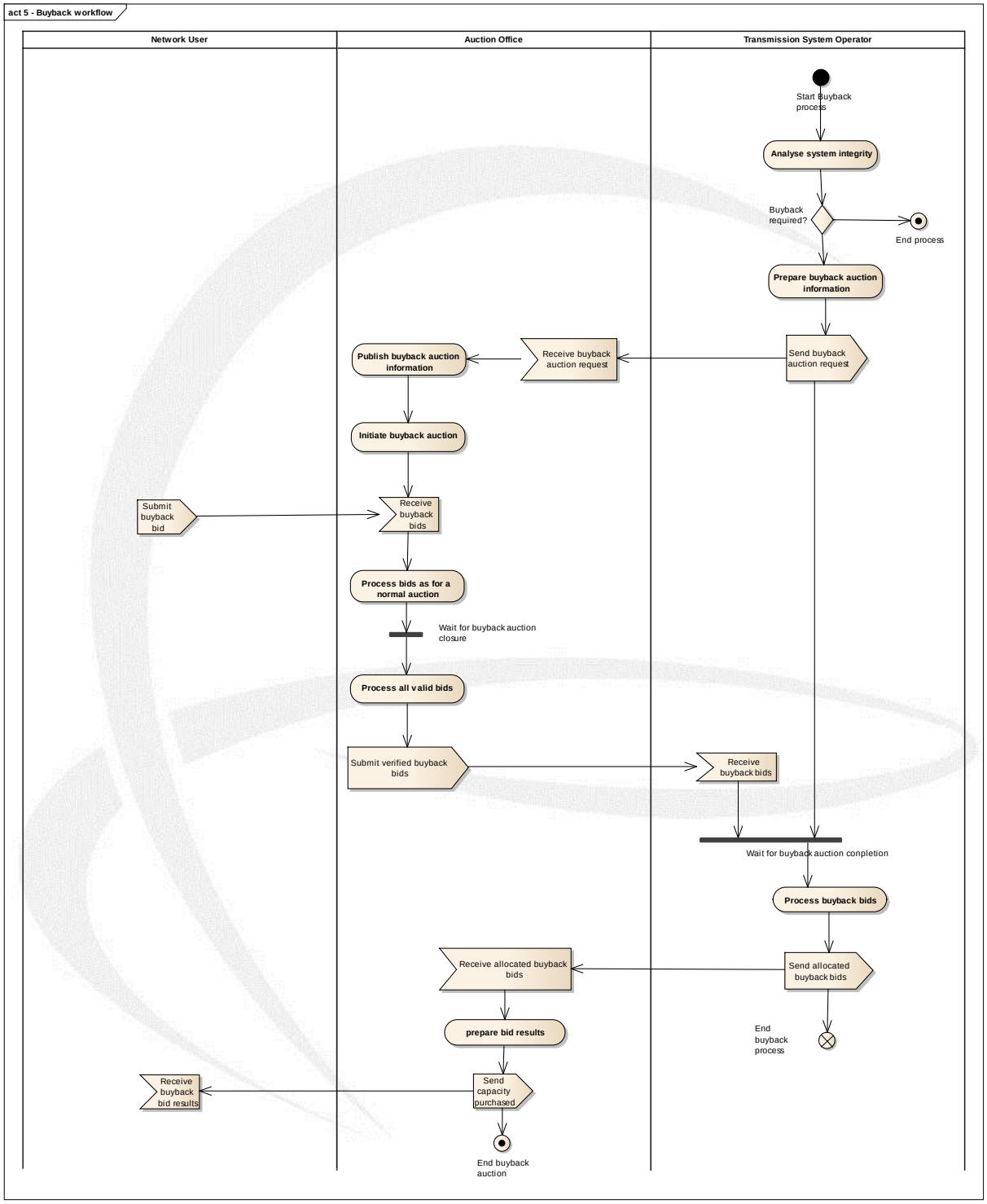

Figure 17: Secondary market transfer process

A secondary market transfer process may take place where Network Users and eventually Transmission System Operators (in the case of buyback), may trade the capacity that has been acquired.

The Transmission System Operator must be informed of all trades by either the Network Users or the Auction Office on their behalf.

The transmission System Operator validates the transfer and when successful informs directly or through the Auction Office the new capacity rights holder of the capacity that has been transferred.

673 ### 3.3.3.8 Buyback process




674
675 Figure 18: Buyback workflow

676 The Transmission System Operator analyses if there is sufficient technical capacity in the
677 network to handle the nominations provided by the Network Users.

In the case where there is insufficient technical capacity an oversubscription situation exists and the Transmission System Operator must initiate a buyback process in order to align the network requirements with the technical possibilities.

Once the amount of overcapacity is determined the Transmission System Operator informs the Auction Office of the amount to be bought back from the market.

The buyback auction process then takes place as defined within the auction process. The only deviation from the auction process may be the introduction of the transmission of the bid information to the Transmission System Operator prior to the publication of the allocation results in order to ensure that the bid respects local market rules.

As as alternative to a buyback auction the Transmission System Operator may buy back the capacity acting in the role of a Network User on the secondary market.

## 3.4 Information model requirements

The following information requirements have been identified as the essential but not exhaustive business information that needs to be catered for in the relevant information exchanges.

## 3.5 Definitions of the attributes used in all the models

| Name | Description |
|---|---|
| Account | The identification of an account assigned by a Transmission System Operator or by Market area coordinator to a Network User used for capacity and balancing accounting. This is also known as a Balancing Group. |
| AllocationIdentification | The identification of the contractual reference under which the capacity was assigned by an Auction Office. |
| AuctionIdentification | The identification of the auction where the capacity rights were offered. In ascending clock auctions this is a unique identification for each bidding round. |
| AvailabilityType | The identification of the type of availability of the capacity. (e.g. firm or interruptible) |
| BiddingRound | The identification of the auction round where the capacity rights were allocated in an ascending clock auction. A Uniform Price Auction consists of a single bidding round. |
| BiddingRoundPrice | The price that has been established for a given bidding round |
| BidIdentification | The identification of the bid submitted by the Network User. The Network User assigns this identification. |
| BidPrice | The price bid for the capacity requested.<br>The price bid may be either a fixed or a floating amount depending on the tariff arrangements in place. |

| Name | Description |
|---|---|
| BookablePoint | A bookable point is defined as the identification of a (inter)connection point, the direction of the flow and type of gas. |
| BookablePointType | The type of the bookable point such as LNG, storage, transmission, production and supply |
| BookingCosts | The costs associated with the capacityallocation. () |
| CapacityAmount | The amount of capacity specified for the period. |
| CapacityAmountAllocated | The amount of capacity allocated to a bid. |
| CapacityAmountSold | The amount of capacity rights that have been sold in an auction, aggregated across all Network Users. |
| CapacityAmountSurrendered | The amount of capacity that have been surrendered by a Network User to a Transmission System Operator to be presented for sale on an auction. |
| CapacityAmountTransferred | The amount of capacity that has been transferred between Network Users on the secondary market |
| CapacityType | Identification of way in which the capacity rights have been packaged (i.e. Bundled, unbundled). |
| ClearingPrice | The price that successful Network Users shall pay at a specific auction. It is determined as set out in sections 4.10 19) (in an ascending clock auction) and 4.11 11) (in a uniform price auction) of the CAM NC. |
| CompetingProductCharacteristic | The characteristic of a product that is to be placed in competition in an auction. |
| ConnectionPoint | The point where gas sale/purchase/trade/transfer may take place. |

| Name | Description |
|---|---|
| ContactType | The type of a Network User contact such as dispatching, trading and invoicing. |
| ContractReference | The reference of a Transmission System Operator assigned contract. |
| CreditAmount | The amount of a credit limit. |
| Currency | The identification of a currency as defined in ISO 4217. |
| eMail | An electronic mail address |
| FlowDirection | The identification of the entry network and the exit network. This can be represented by the “to and from TSO” or “to and from Market area” |
| FromTso | The TSO where the gas is exiting the network |
| FromMarketArea | The Market area where the gas is exiting the network |
| FrameworkIdentification | Identification code for the framework that represents a combination of products and multiplication factors for the calculation of a credit limit |
| FrameworkName | The name of a credit limit framework |
| GasType | The type of gas which may be H-gas or L-gas. |
| InterConnectionPoint | A physical or virtual point connecting adjacent entry-exit systems or connecting an entry-exit system with an interconnector, in so far as these points are subject to booking procedures by network users. |
| InterConnectionPointIdentification | The identification of an InterConnection Point |

| Name | Description |
|---|---|
| InternalAccountIdentification | The identification of an account (balancing group) managed by a Transmission System Operator for a Network User that is registered in the Transmission System Operator's area. |
| MarketArea | A market area represents the virtual merger of transmission systems and downstream distribution systems to form a single balancing zone. In this respect, market areas are comparable to trading zones. |
| MinimumCapacityAmount | The Minimum Amount of Capacity for the respective Standard Capacity Product which the Network User is willing to be assigned. (origin: CAM NC) |
| MobileTelephoneNumber | The telephone number of a wireless handheld device that allows users to make calls and send text messages, among other features. |
| MultiplicationFactor | The factor that is used to multiply the value of a Network User credit limit to establish the credit limit for a given product type. |
| NetworkUserIdentification | The identification of a Network User that has acceded to and is compliant with all applicable legal and contractual requirements that enable him/her to book and use capacity on the relevant Transmission System Operators' network under a Capacity Contract (origin: CAM NC) |

| Name | Description |
|---|---|
| OfferedCapacity | Offered capacity for auction is composed of:<br>• technical capacity - the maximum firm capacity that the Transmission System Operator can offer to Network Users, taking account of system integrity and the operational requirements of the transmission network<br>• Additional capacity offered in additional to the technical capacity made available through one of the congestion management procedures. Such capacity corresponds to an oversubscription of the firm capacity<br>• Less Previously sold capacity - less<br>  • the Surrendered capacity which corresponds to the surrender by a Network User of firm capacity which is contracted by the Network User at an interconnection point.<br>  • And the Long term or firm day ahead capacity that has been withdrawn through the application of the UIOLI mechanism |
| OfficeTelephoneNumber | The telephone number of a standard telephone in an office that is wired to a telephone line. |
| Period | The period covered for the capacity amount in question. |
| PostalAddress | The address (of a person or business) to which mail is delivered, as distinct from the actual street address. |
| PriceSteps | The identification of a series of monetary amounts which are used in a progressive manner in ascending clock auction bidding rounds to determine the auction price. Both a large price step and a small price step shall be defined for each auction. |

| Name | Description |
|---|---|
| ProductIdentification | The identification of a credit limit product that has a multiplication factor. |
| Rate | A measure of a part with respect to a whole; a proportion expressed as a percentage. |
| ReservePrice | The minimum eligible floor price in the auction, being equal to the Regulated Tariff. |
| SequenceIdentification | A sequential number distinguishing one entity from another. |
| StandardCapacityProductType | the duration of the standard capacity product: yearly, quarterly, monthly, daily or within-day |
| Status | The condition of an object (e.g. Auction, Network User, Bookable point) |
| ToTso | The TSO where the gas is entering the network |
| ToMarketArea | The Market area where the gas is entering the network |
| TransfereeIdentification | The identification of a Network User that has bought transferred capacity rights on the secondary market |
| TransferorIdentification | The identification of a Network User that has transferred capacity rights on the secondary market |
| TransmissionSystemOperatorIdentification | The identification of a Transmission System Operator. |
| TsoPriceCap | The price limit that a Transmission System Operator is willing to pay for capacity in a buyback auction |
| UnitOfMeasure | The unit of measure in which the capacity amount is expressed. |
| UnitOfPrice | The unit of measure in which the price is expressed |

| Name | Description |
|---|---|
| ValidityPeriod | The period of validity of a credit limit. |
| VatCode | The value added tax code assigned by a national organisation. |

## 3.6 Requirements per process

Note 1: wherever the indication [0..1] appears against an attribute this signifies that the attribute in question is optional. For example, the attribute “PriceSteps [0..1]” is not used in the case of uniform price auctions.

Note 2: The information outlined in the class diagram does not represent any structural constraints. It only represents the information requirements for a given information flow.

### 3.6.1 Bookable point adminstration process

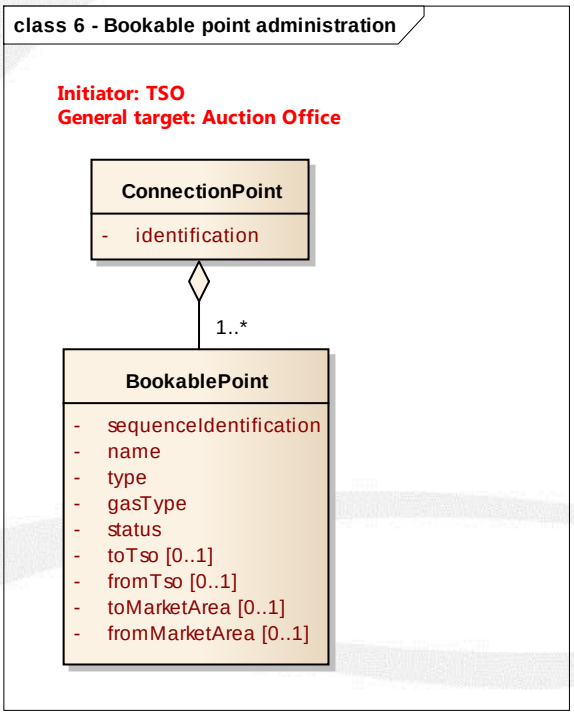



Figure 19: Bookable point administration requirements

## 3.6.2 Network User Registration process

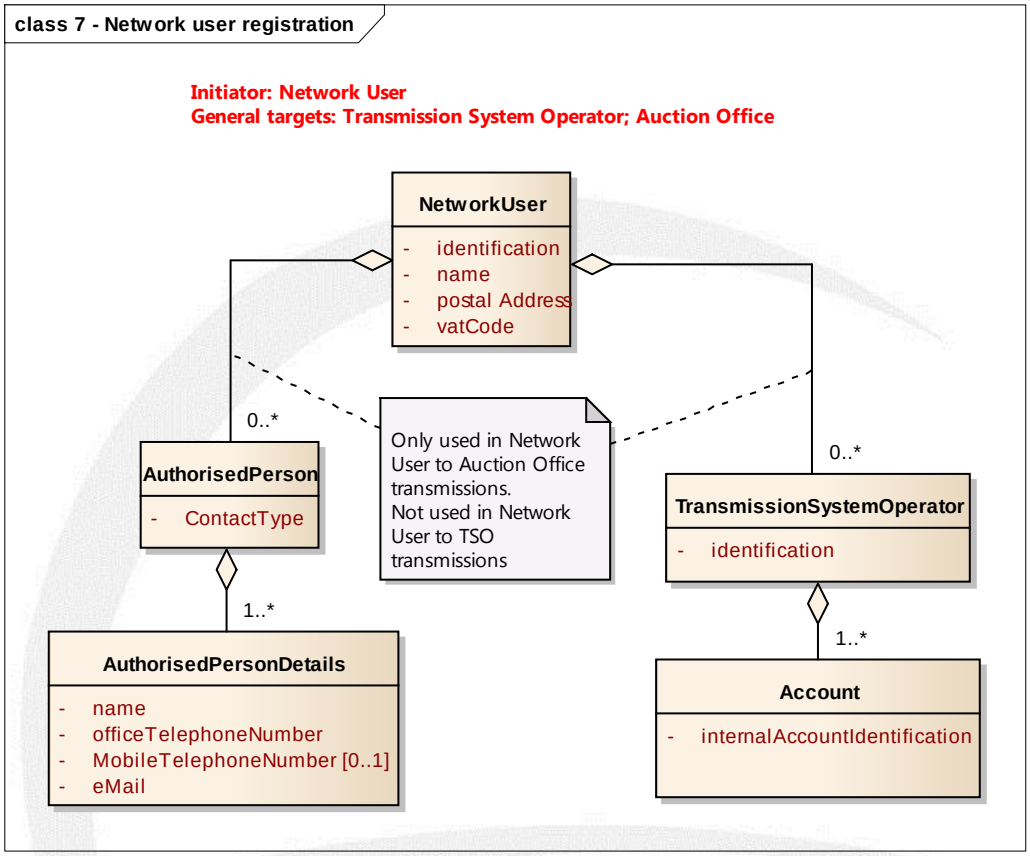



Figure 20: Network User registration requirements

### 3.6.3 Offered capacity process

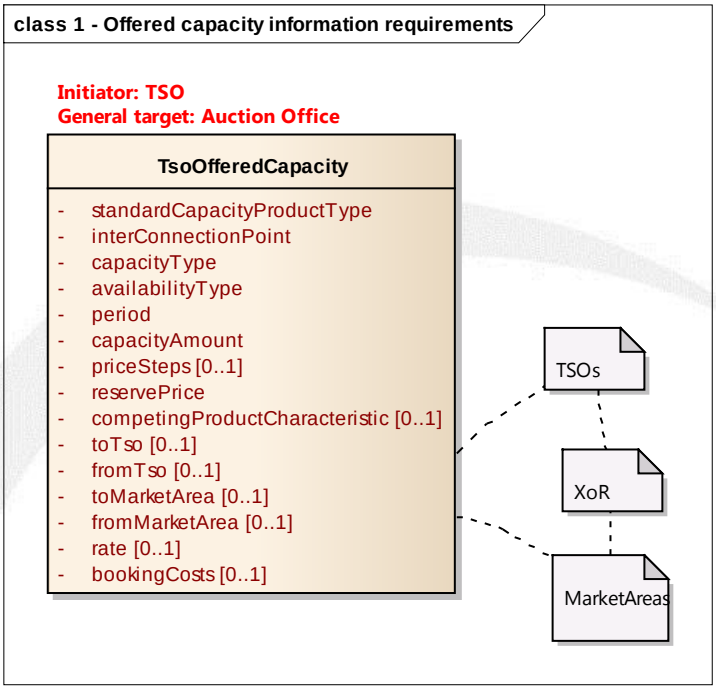



Figure 21: TSO Offered capacity information requirements

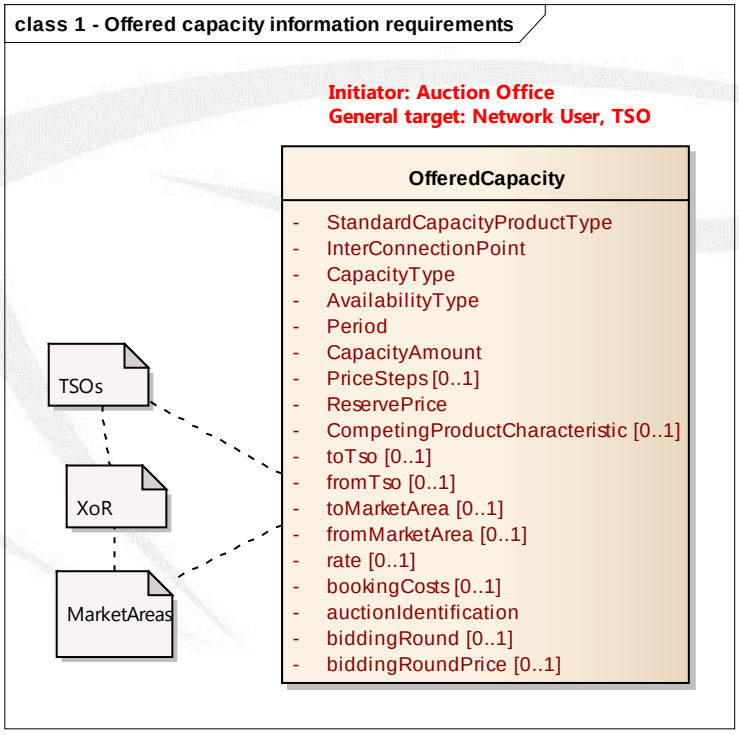



Figure 22: Offered capacity information requirements

### 3.6.4 Surrender capacity process

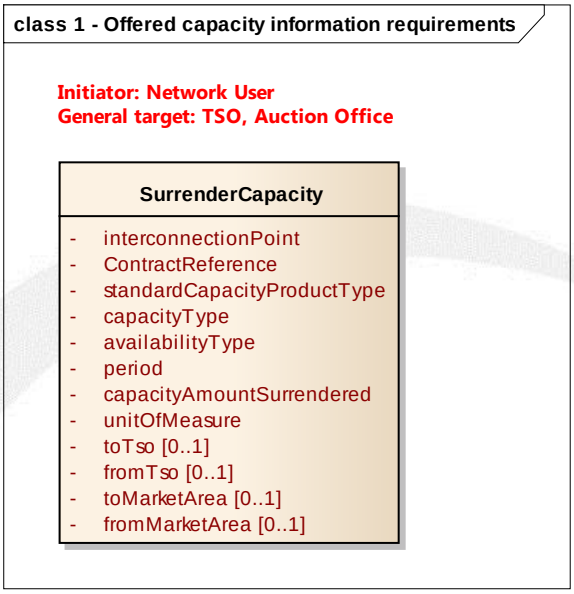



Figure 23: Surrender capacity information resuirements

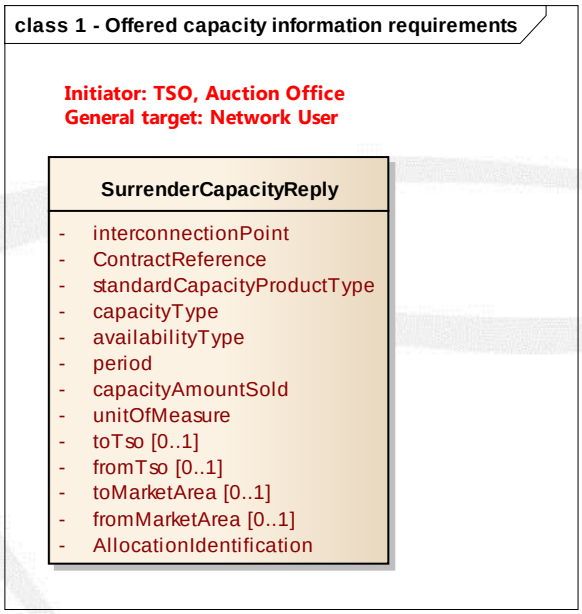



Figure 24: Surrender capacity reply

### 3.6.5 Auction process

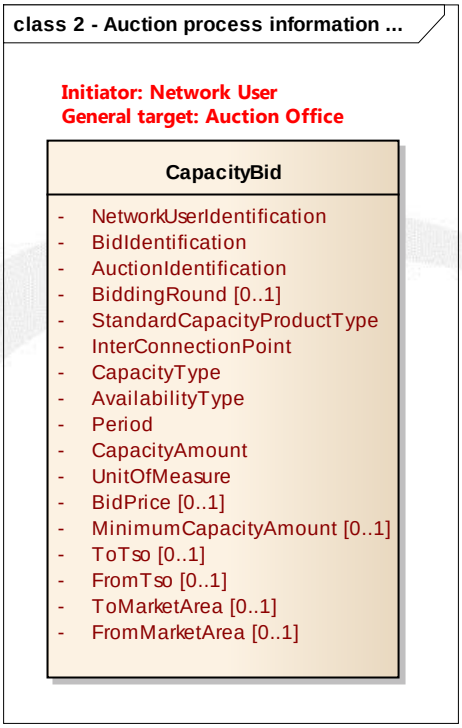



Figure 25: Bid information requirements

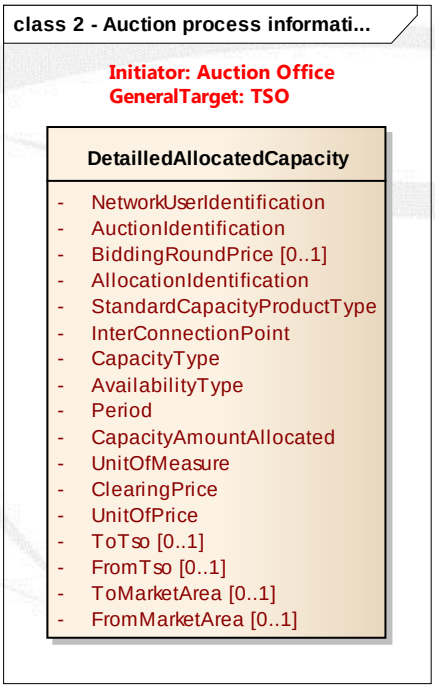



Figure 26: Detailled capacity allocated information requirements

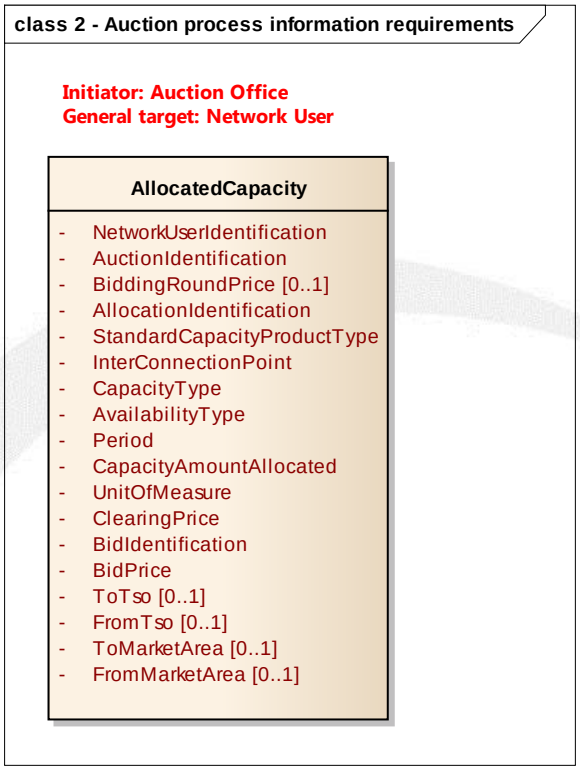



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Figure 27: Allocated capacity information requirements

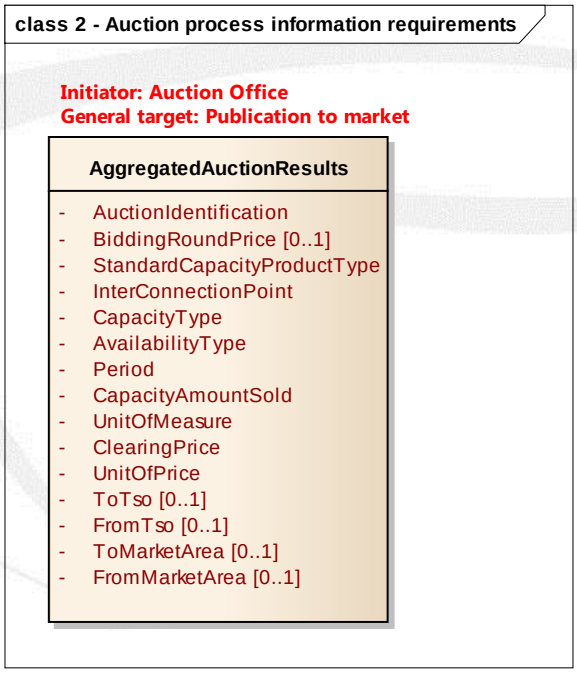


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Figure 28: Aggregated auction results

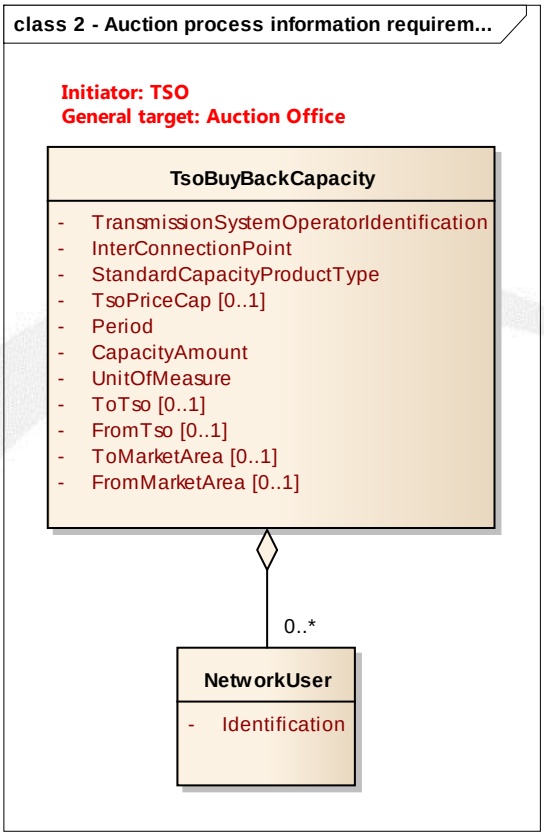


Figure 29: TSO Buy back capacity information requirements

### 3.6.6 Secondary market transfer process

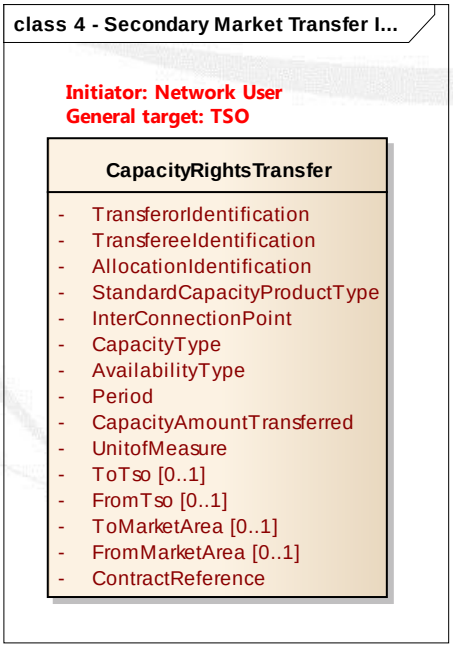


Figure 30: Secondary market capacity rights transfer information requirements

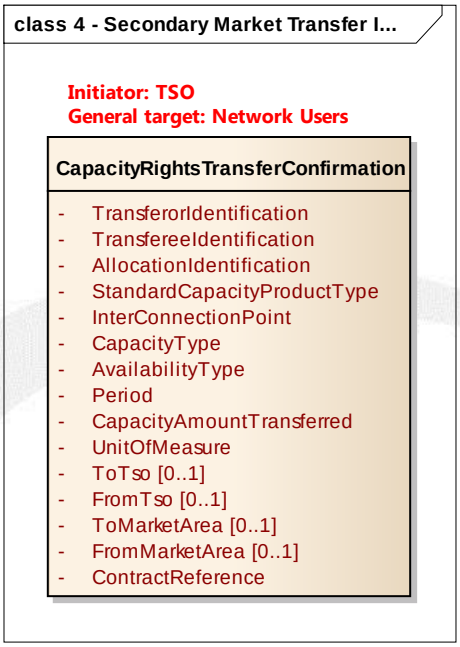


Figure 31: Secondary market capacity rights transfer confirmation information requirements

### 3.6.7 Credit limit process

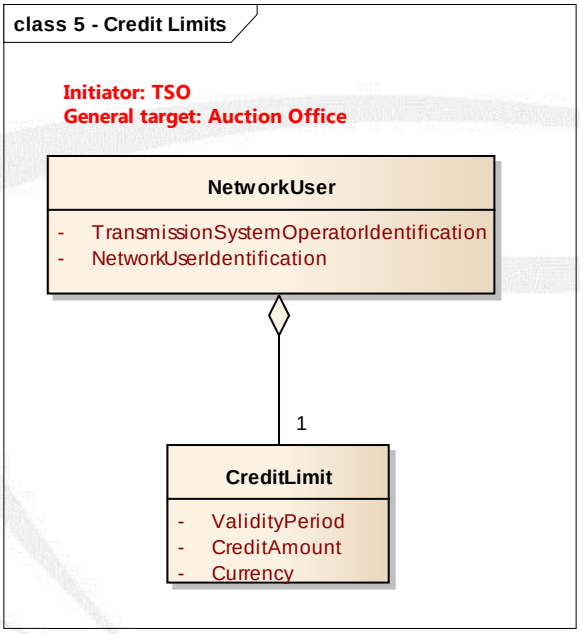


Figure 32: Network User credit limit information requirements

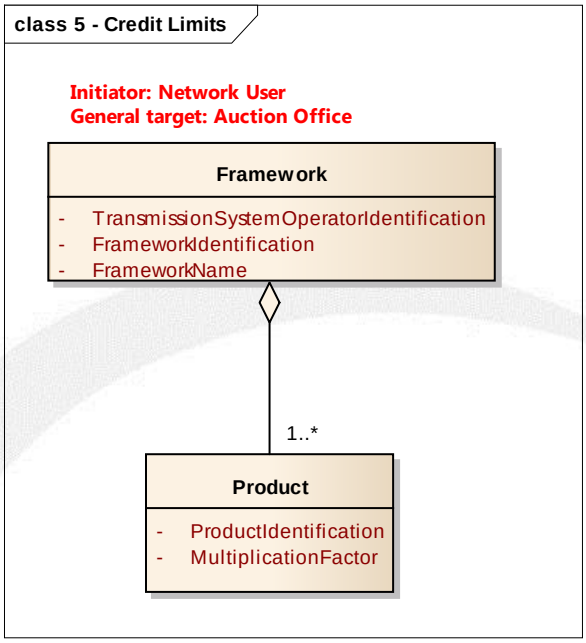


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Figure 33: Product credit limit information requirements

## 3.7 Business rules

The diagram below shows the key business rules set out in the CAM network code that apply to the allocation of capacity via auctions. The exact timings for each auction will be set out in an auction calendar published annually by ENTSOG.

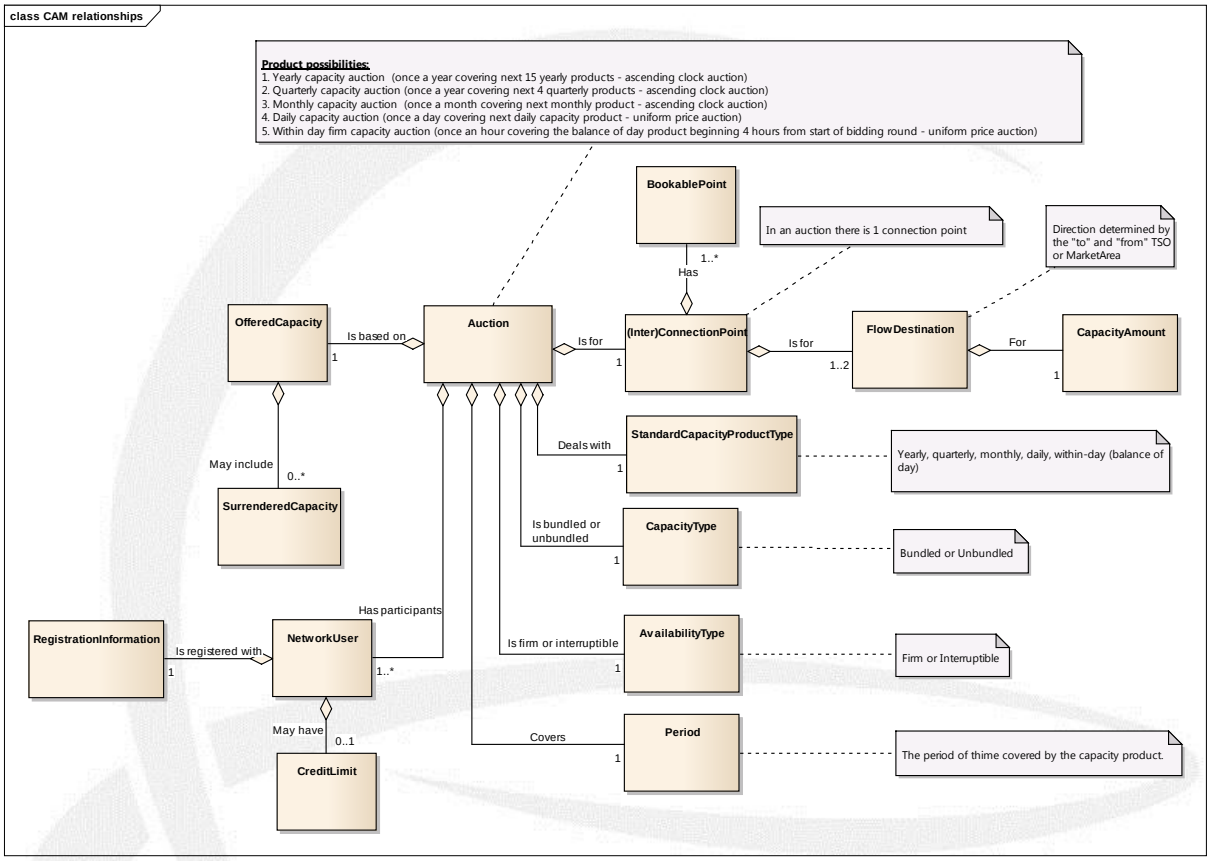


Figure 34: Basic business information constraints

## 3.8 Definition of terms

***Uniform price auction:*** an auction in which the Network User freely bids price as well as quantity and all Network Users, who are successful in gaining capacity, pay the price of the lowest successful bid.

***Ascending clock auction:*** an auction in which a Network User places requested quantities against defined price steps, which are announced sequentially.