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

**Version 13 – 2015-09-02**

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# 1 Introduction

The Regulation (EU) No. 984/2013 for Capacity Allocation Mechanism (CAM NC) and The Regulation (EU) No. 490/2012 for 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
- Cooperation between Auction Offices

This BRS covers requirements for the harmonised implementation of auctions for primary capacity, for secondary market capacity right transfer processes 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.

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

# 3 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.

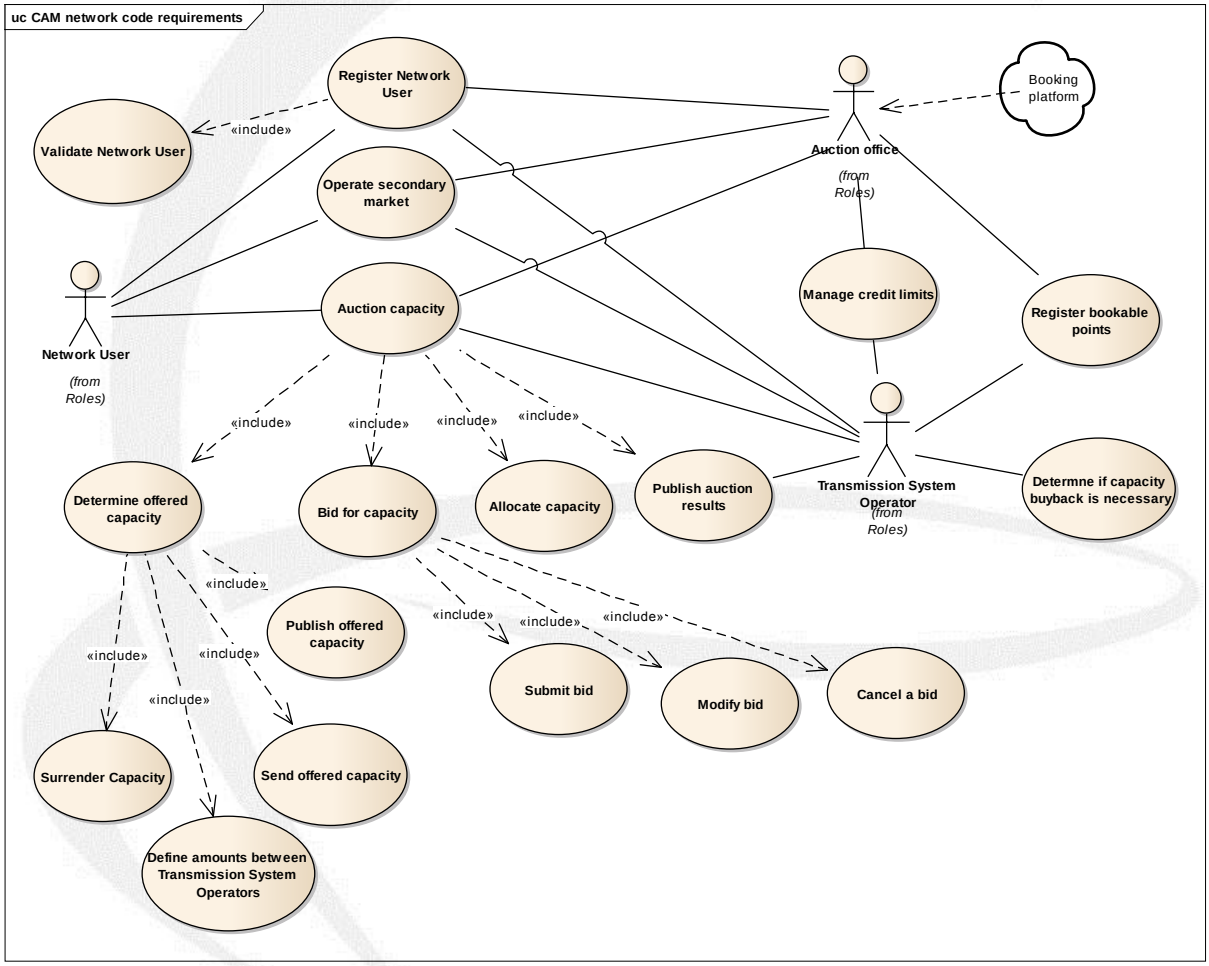



Figure 1: overview of the CAM/CMP process use case

### 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.

#### 3.1.1.2 Network User

A Network User is defined in the Regulation (EU) 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 CAM/CMP 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). 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 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. If required the Network User transmits its registration data via the Auction Office to 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 new Network User must provide a unique identification, such as an 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 accountsmay be provided to the Auction Office where required by the Transmission System Operator.

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

#### 3.2.1.1 Validate Network User registration

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. The approval/rejection information regarding the access to the Transmission System Operator(s) networks(s) is provided by the Transmission System Operator(s). In the case where the Network User registers via the Auction Office, it is provided by the Auction Office.

### 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 by several items (see definition in chapter 3.5).

The bookable point bundling process is managed by the Auction Office.

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 Articles 17 and Article 18 CAM NC, respectively. In the case the reverse 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 reverse auction capacity” to cover the determination of reverse auction capacity.

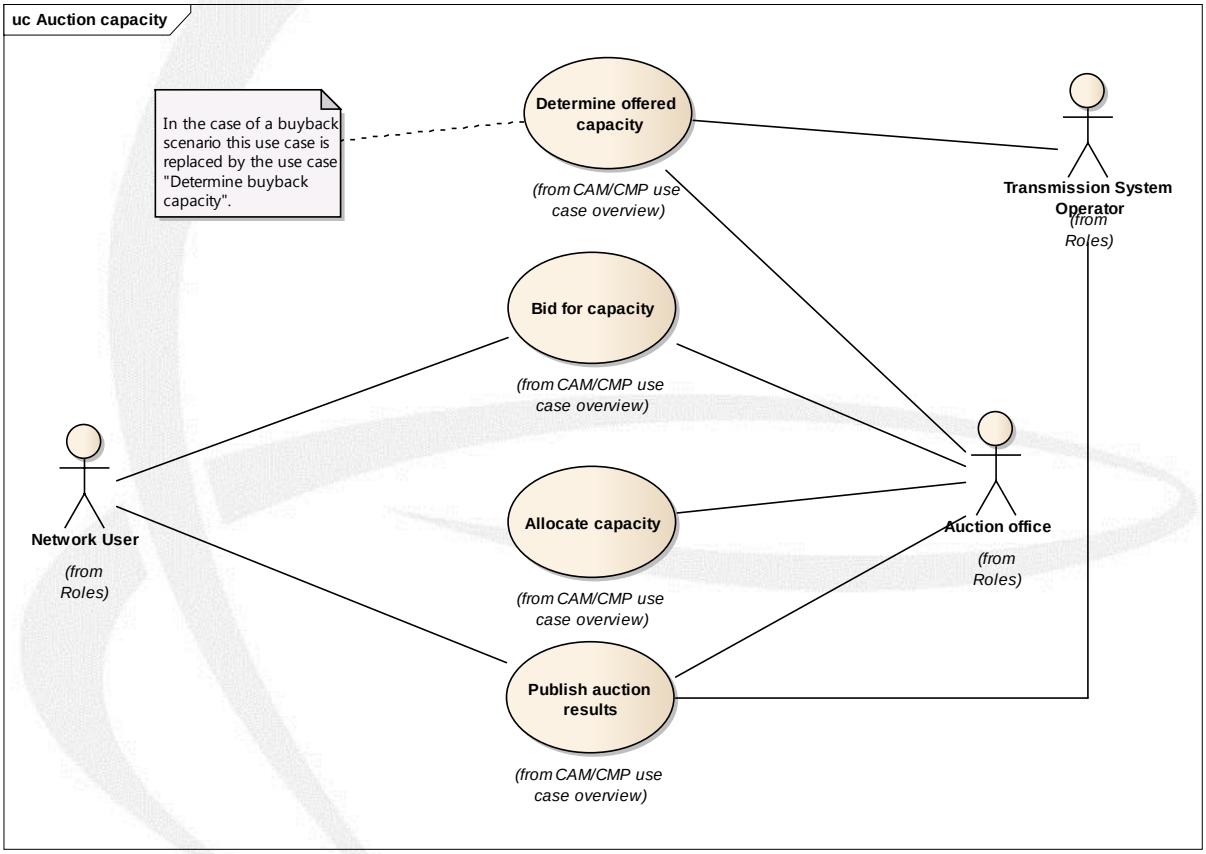



Figure 2: the auction capacity use case

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.

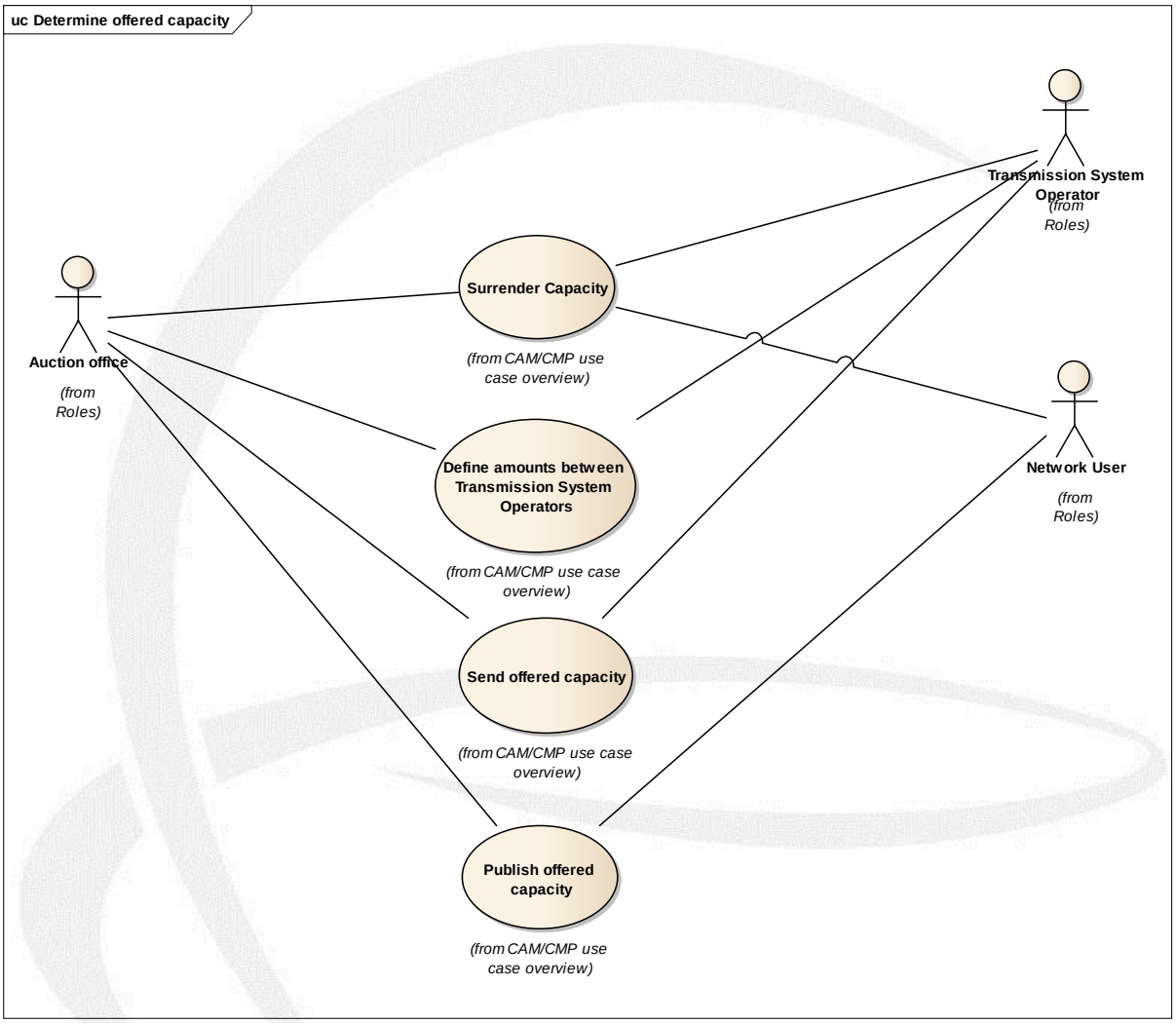



Figure 3: Determine offered capacity use case

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

#### *3.2.3.1.1 Surrender capacity*

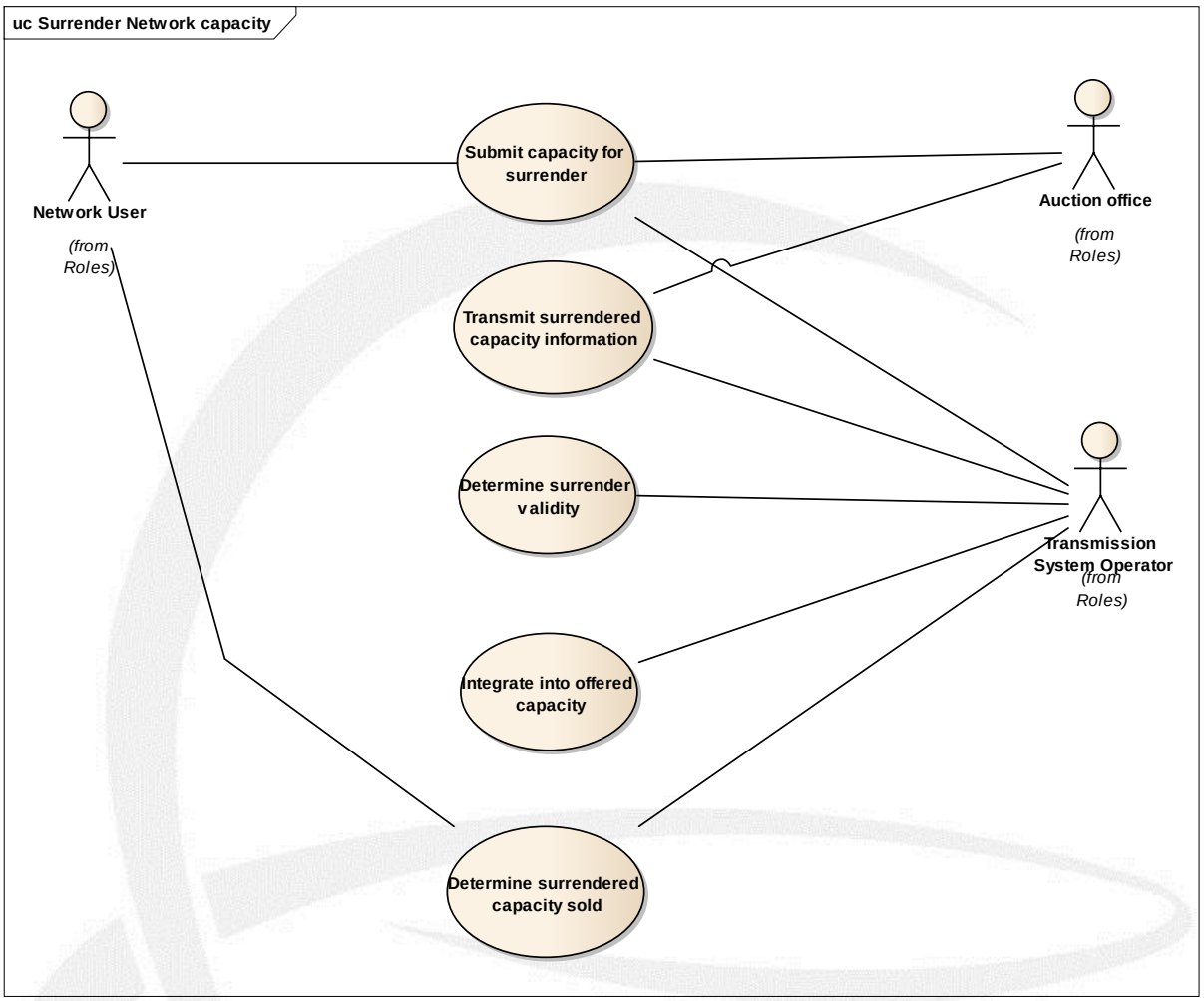



Figure 4: CMP surrender network capacity use case

##### 3.2.3.1.1.1 Submit capacity for surrender

If the surrender process is supported by the Transmission System Operator(s), the Network User may surrender capacity to either the Auction Office or directly to the Transmission System Operator(s) for resale at any time. In the case where the request is submitted directly to the Transmission System Operator(s), it should be forwarded to the Auction Office for processing.

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 (subject to the NRA decision). A bundled or unbundled capacity surrender request must identify the Transmission System Operator(s). A bundled capacity surrender request shall be forwarded to the involved Transmission System Operators for validation.

#### 3.2.3.1.1.2 Transmit surrendered capacity information

The Auction Office transmits the surrendered capacity received to the Transmission System Operator(s) after internal validation by the Auction Office.

The Transmission System Operator forwards its positive/negative validation response of the surrender request to the Auction Office. The Auction Office informs the Network User about the confirmation/rejection by the Transmission System Operator.

Extra steps for surrender may be implemented by the Auction Office.

#### 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 Modify a surrender

As long as lead times constraints are respected, the Network User may cancel all or part or a surrender request by submitting a recall surrender request which, as long as lead time constraints for capacity publication are respected, will be taken into account by the Transmission System Operator.

#### 3.2.3.1.1.5 Integrate into Offered Capacity

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

#### 3.2.3.1.1.6 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 Transmission System Operators*

The Transmission System Operator calculates the capacity to be offered within the booking platform. A Transmission System Operator may inform the Auction Office about any competition between several connection points, capacity types and any relevant information related to Article 19 (5(a) and (b) CAM NC.

In case of a competing situation involving more than one Transmission System Operator, the competition algorithm is managed by the Auction Office.

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.

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 Transmission System Operators" 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 both 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 starting price and, in the case of ascending clock auctions, the value of the large price step and the small price step 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 on top of the starting price and they shall 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 rules that apply during a bidding round shall be compliant with Article 17 CAM NC.

In the case of a uniform price auction, the bids shall be compliant with Article 18 CAM NC.

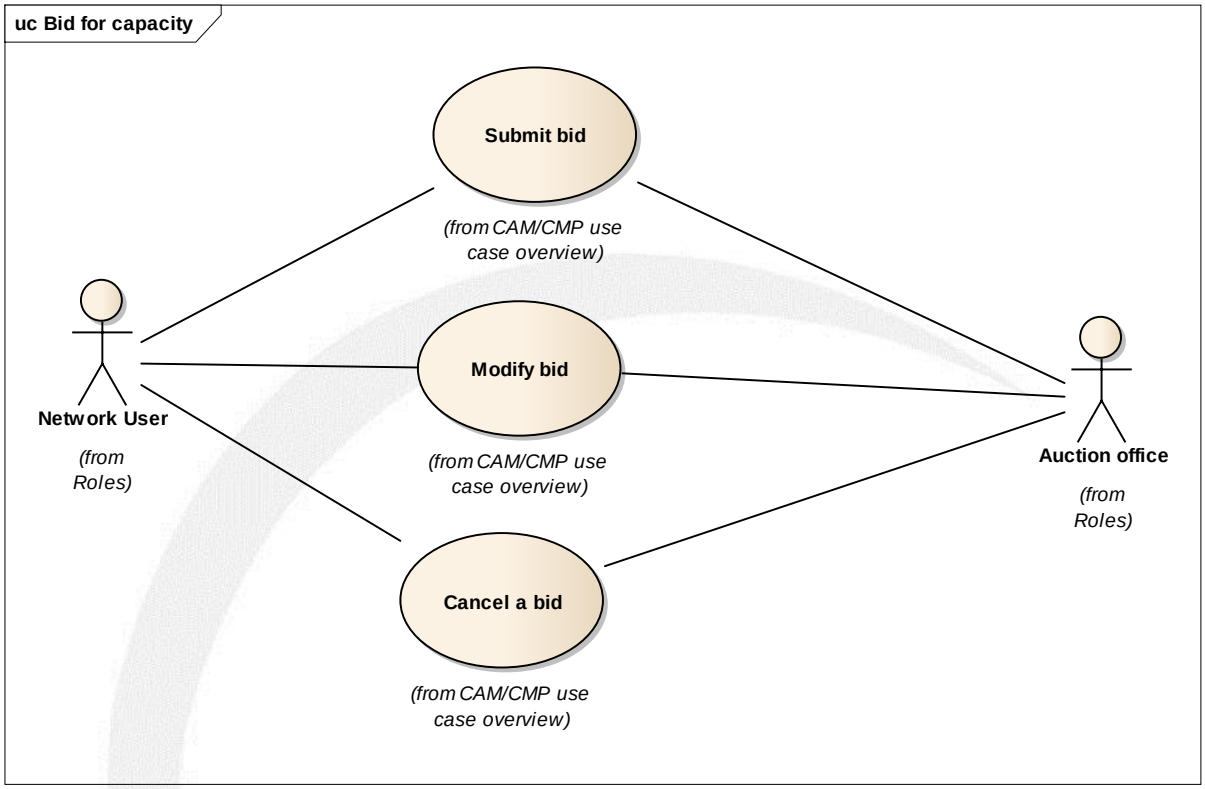



Figure 5: bid for capacity use case

#### *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 Article 17(5, (8 and (16) CAM NC.

#### *3.2.3.2.2 Modify bid*

As long as the bidding round is open, a Network User may modify the bid according to the requirements stated in Article 17 CAM NC and Article 18 CAM NC.

#### *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 according to the requirements stated in Article 17 CAM NC and Article 18 CAM NC.

Exceptional cases in which a Network User cannot cancel a bid are bidding rounds with small price steps in ascending clock auctions according to the requirements stated in Article 17.

#### 3.2.3.3 Allocate capacity

The capacity is allocated respecting market rules, as set out in article 17 (in an ascending clock auction) and Article 18 CAM NC (in a uniform price auction).

#### 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.

In ascending clock auctions intermediate results may be provided to the Transmission System Operators by the Auction Office.

### 3.2.4 Determine if capacity buyback is necessary

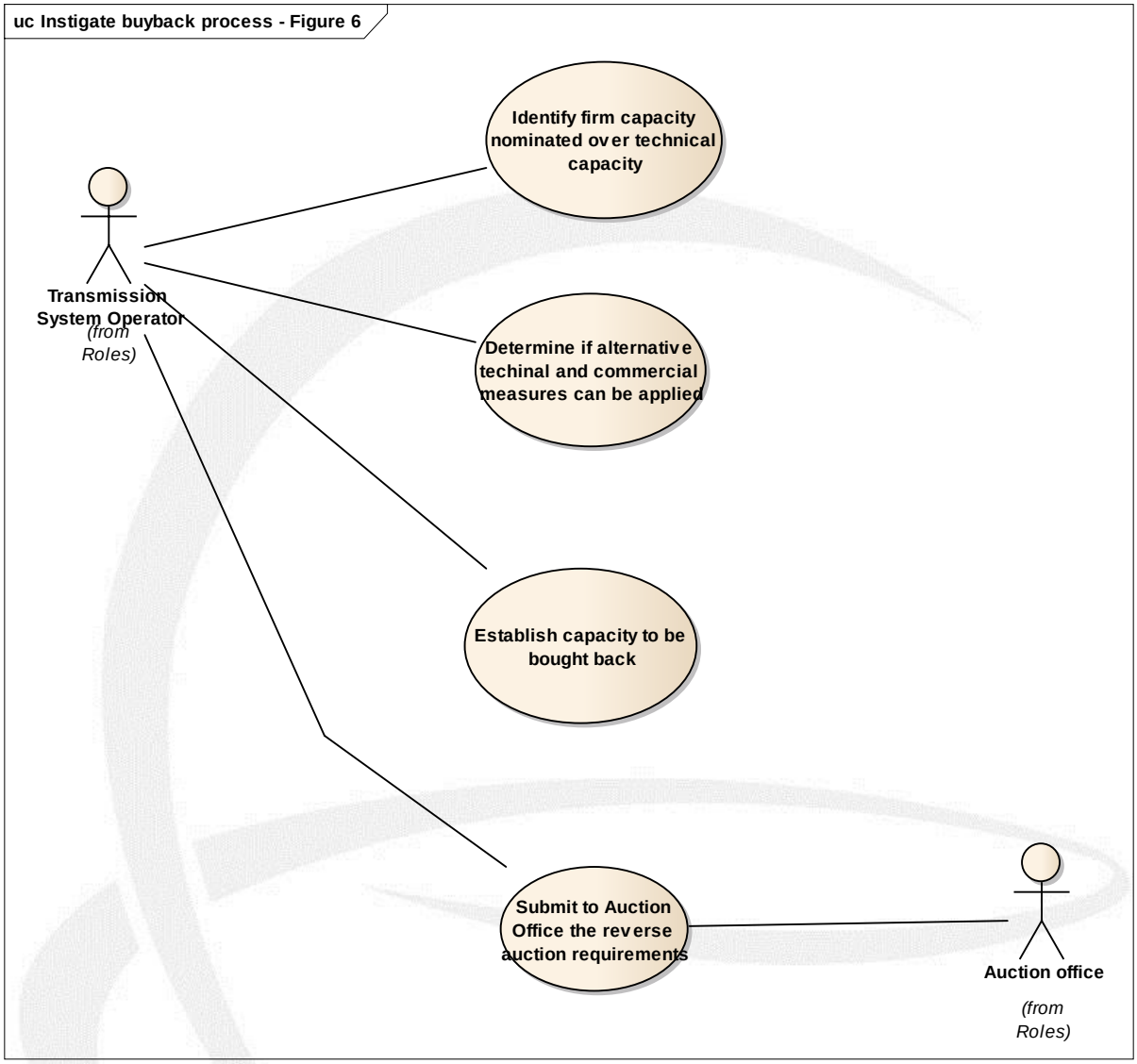



Figure 6: Reverse auction use case

#### 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, without taking into consideration whether the capacity is bundled or not.

For the Transmission System Operator this information is irrelevant as it seeks to achieve a flow reduction. For the Network User the bundling status is irrelevant as it states the financial compensation desired for not flowing gas.

There are two types of buy back;

- buying back capacity in the congested direction
- selling capacity with a nomination commitment in the counter-direction.

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

#### 3.2.4.4 Submit to Auction Office the reverse auction requirements

The Transmission System Operator shall send capacity to be purchased to the Auction Office so that a reverse 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

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 any other kind of auction mechanism may 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.

In the text no differentiation between assignment and transfer of use is made, however this differentiation should be included in the relevant messages.

Capacity products originally booked as bundled shall be traded as bundled products on the secondary market. A bundled capacity trade shall be forwarded to the involved Transmission System Operators for validation.

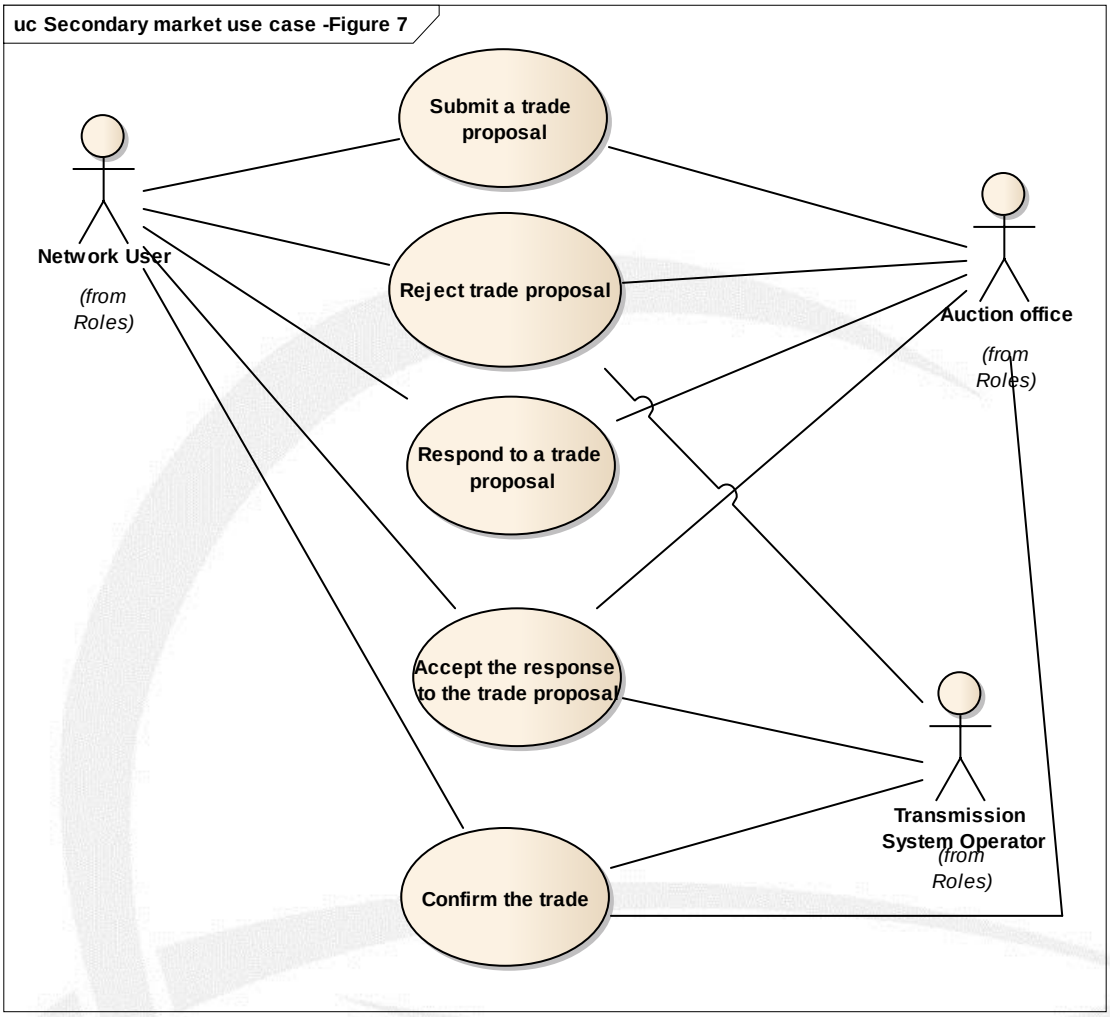



Figure 7: Secondary market capacity

### 3.2.5.1 Submit a Trade Proposal

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

In the text no differentiation between over the counter, call for orders and first committed first served is made, however this differentiation should be included in the relevant messages.

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 submitter.

#### 3.2.5.2 Reject a Trade Proposal

If a trade proposal is submitted to an Auction Office, the Auction Office shall forward the trade proposal to the Transmission System Operator(s) at their request. The Transmission System Operator has the possibility to reject the trade proposal. The rejection is communicated to the Auction Office, who will forward the information to the concerned Network User(s) and Transmission System Operator(s).

#### 3.2.5.3 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.

#### 3.2.5.4 Accept the response to a Trade Proposal (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.

#### 3.2.5.5 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 identifies each product (auction and trades) subjected to credit limit verification and the multiplication factor(s) to be applied to a Network User's bid (starting price + surcharge) associated to a specific product and to trades, considering the duration of the trades. This defines the framework.The Transmission System Operator transfers to the Auction Office 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 these evolve.

Network Users may be able to consult their credit limit information on the booking platform if such a right is accorded by the Transmission System Operator. The financial value for a

given Network User's bid associated to a specific product is determined by the multiplication of the unitary price (starting price + surcharge), 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 remaining credit value after each bid submission and capacity allocation. The Auction Office may provide the used credit value upon request of 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.

During the secondary process the remaining credit value is adjusted.

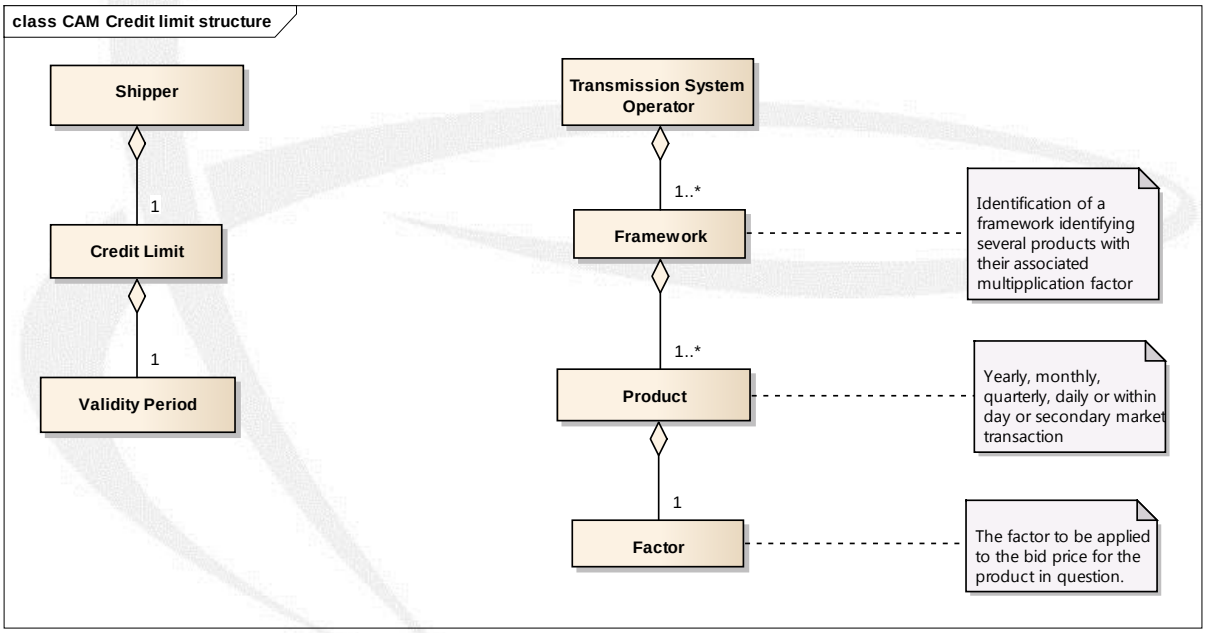



Figure 8: Credit limit requirements

## 3.3 Information flow definition

### 3.3.1 CAM/CMP Sequence flow

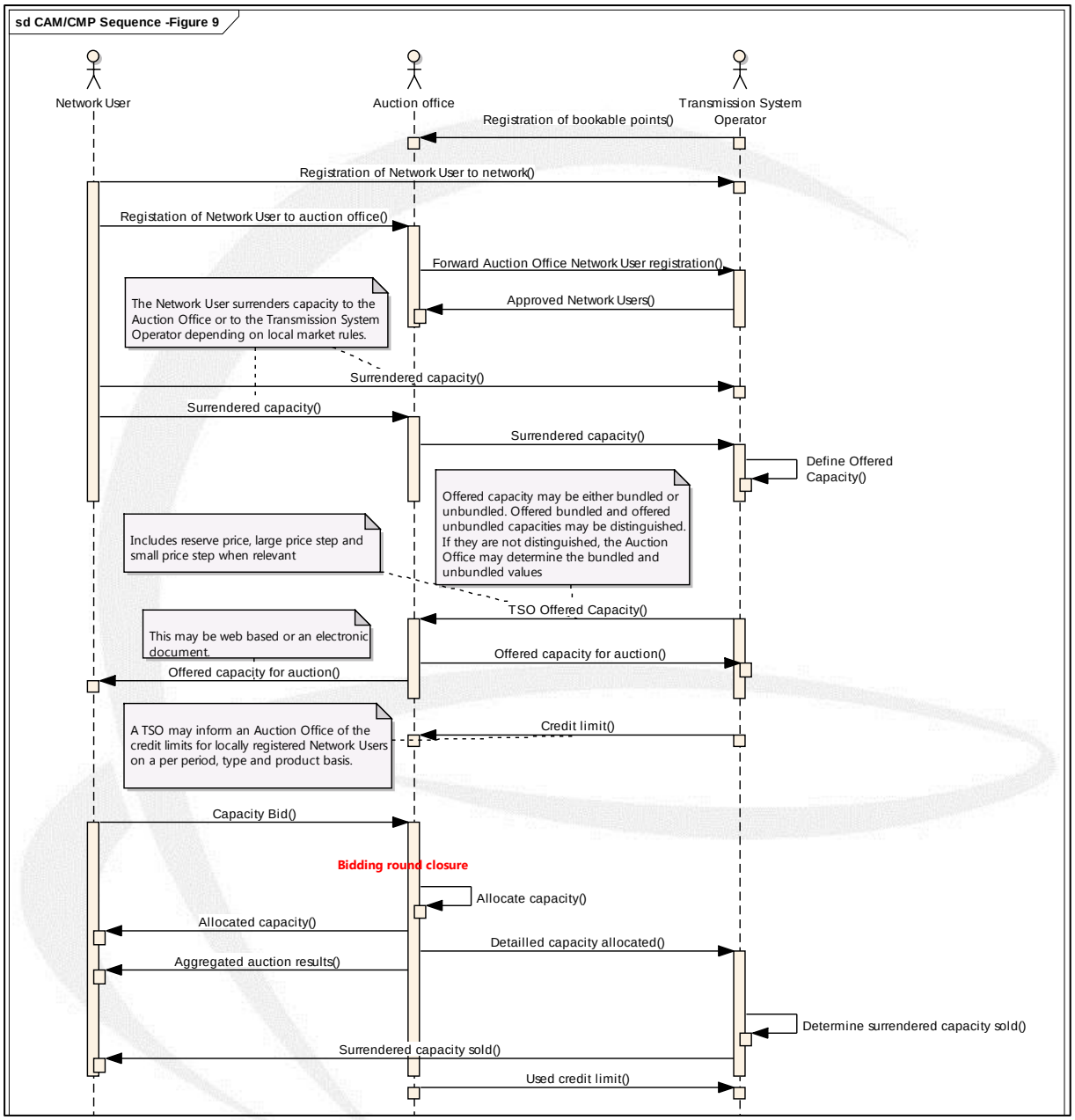



Figure 9A: Information flow sequence

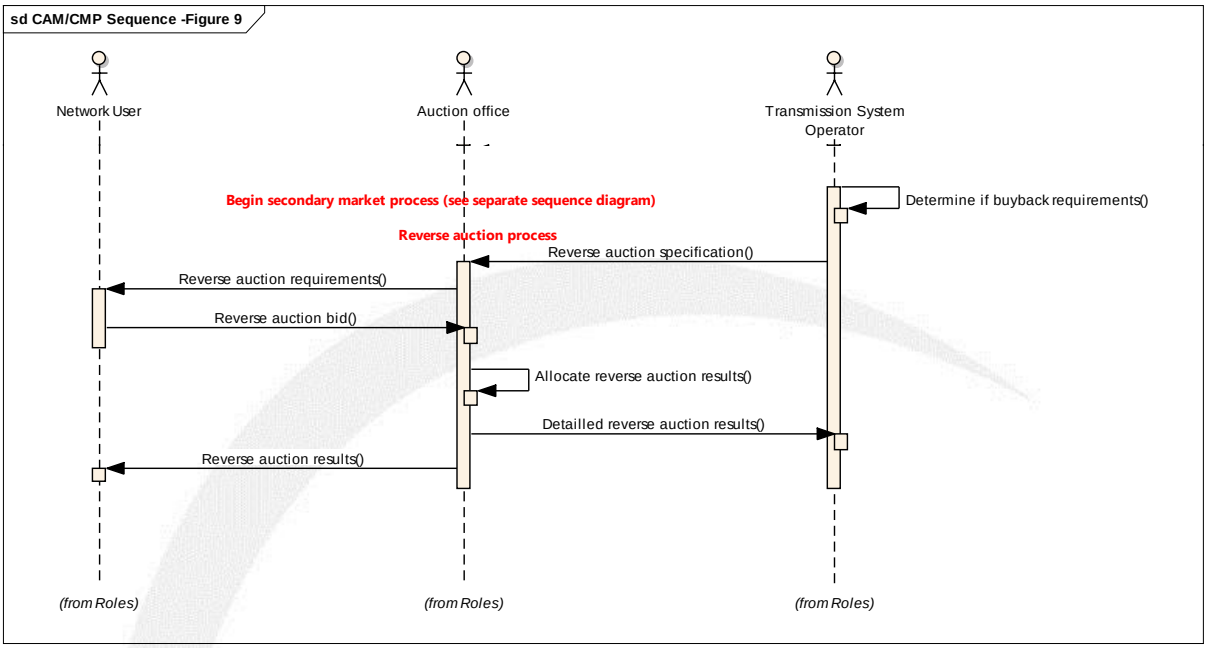



Figure 9B: Information flow sequence

### 3.3.1.1 Bookable point registration

The Transmission System Operator provides the Auction Office with the information of all the connection points where capacity can be booked.

### 3.3.1.2 Network User registration to network

Prior to operating on the market a Network User must register with the Transmission system Operator .

### 3.3.1.3 Network User registration to Auction Office

Prior to operating on the market a Network User must register with the Auction Office if the Network User wishes to participate in CAM/CMP processes.

### 3.3.1.4 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 CAM/CMP processes.

### 3.3.1.5 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.

### 3.3.1.6 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 3.2.3.1.2.

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

The Auction Office informs the Transmission System Operators 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.

### 3.3.1.7 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 trades 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. This information may include the creation, modification or surpression of a credit limit.

The Auction Office may provide used credit value of all relevant Network Users to the Transmission System Operator upon request.

### 3.3.1.8 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)

### 3.3.1.9 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)

### 3.3.1.10 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)

### 3.3.1.11 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)

#### 3.3.1.12 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 3.2.3.1.1.6)

#### 3.3.1.13 Reverse auction 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 4

#### 3.3.1.14 Reverse auction bid

The bidding procedure will be the same as carried out for a uniform price auction. Local market rules may determine that any other kind of auction mechanism may be used.

#### 3.3.1.15 Allocate reverse auction results

Once the reverse auction closes the Auction Office evaluates the bids received and allocates the capacity to the Network Users. 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.

In the text no differentiation between assignment and transfer of use is made, however this differentiation should be included in the relevant messages. Besides, no differentiation between over the counter, call for orders and first committed first served is made, however this differentiation should be included in the relevant messages.

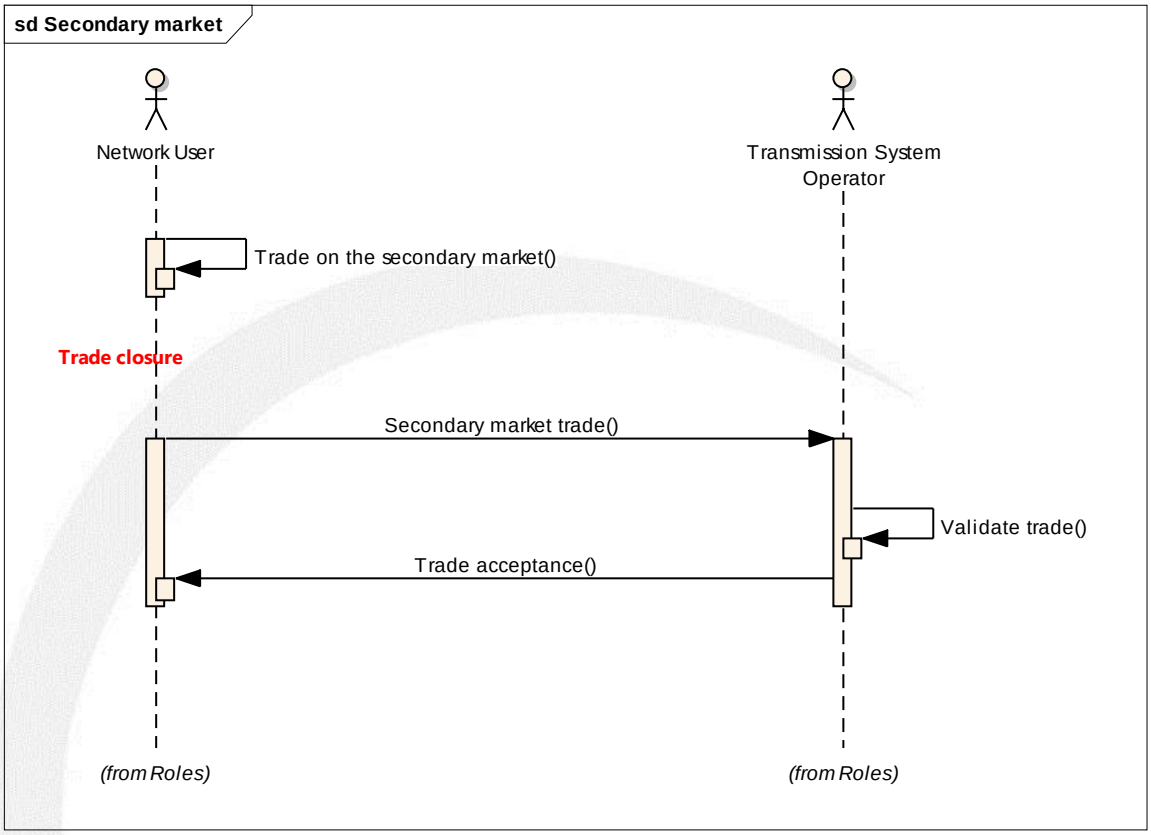



Figure 10: Secondary market sequence

If capacity is offered on the secondary market the Network User that traded the capacity or the Auction Office (on behalf of the Network Users) must inform the Transmission System Operator of the trade.

The Transmission System Operator validates the trade information. Once the trade submission is deemed valid, the Transmission System Operator confirms the trade. The Transmission System Operator informs the Network Users or the Auction Office, who is acting on behalf of the Network Users, about the confirmation.

In the case of error the Network Users are informed and take the necessary corrective action.

### 3.3.3 CAM/CMP Workflow

#### 3.3.3.1 Bookable point Adminstration process

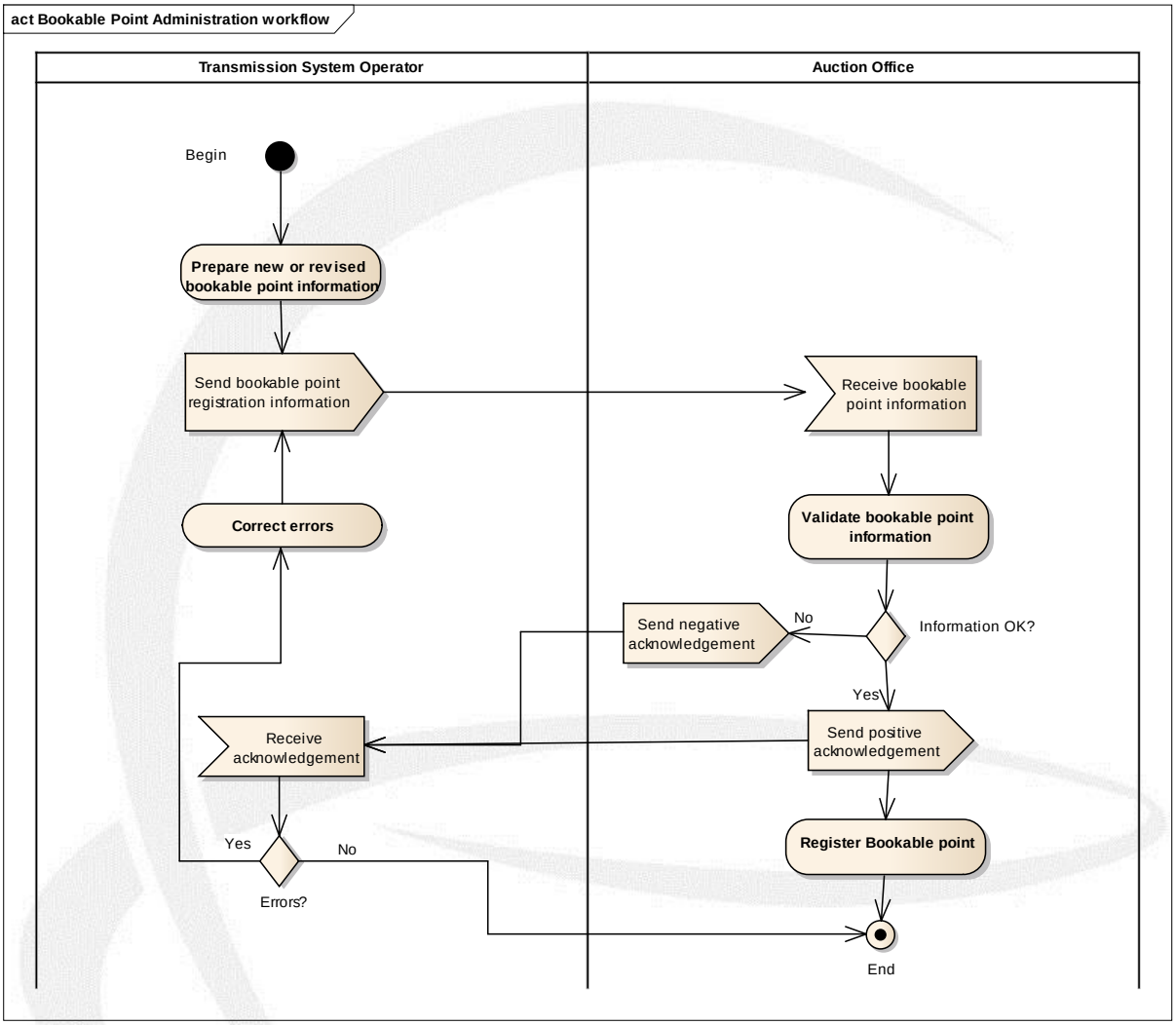



Figure 11: Bookable point Adminstration workflow

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.

### 3.3.3.2 Network User Registration process

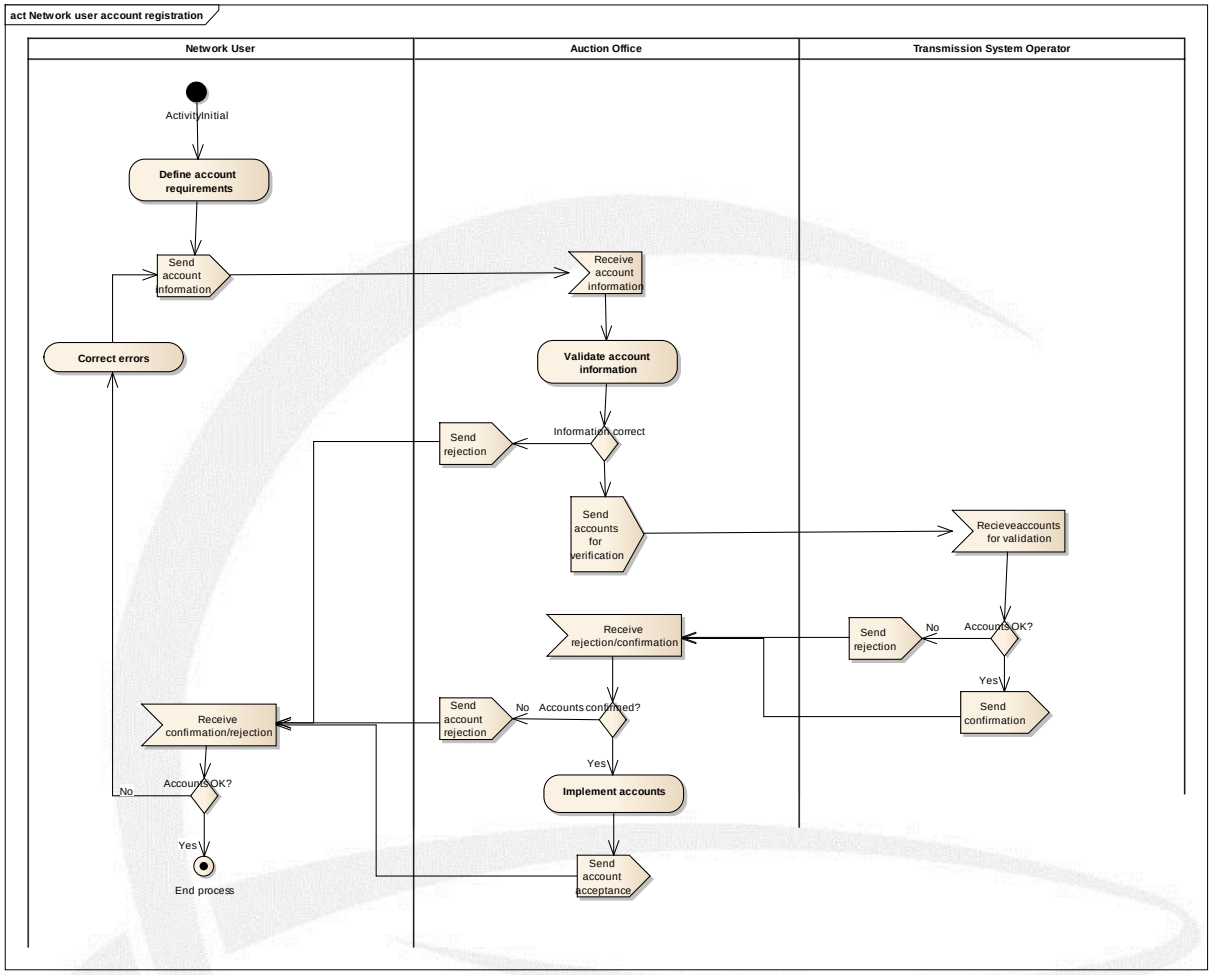



Figure 12: Network User Registration workflow

Two Network User registrations are required for each Network User. One for the registration to the Transmission System Operator network and one to the Auction Office.

The Auction Office registration request includes at least one authorized person and at least one one Transmission System Operator identification.

Network User accounts are provided by the Network User or the Transmission System Operator on behalf of the Network User to the Auction Office if required by the Transmission System Operator.The Auction Office validates the registration data and forwards the valid requests to the identified Transmission System Operator for approval.

The Transmission System Operator confirms/rejects the approval request. Once confirmed, the registration information is then sent to the Network User.

### 3.3.3.3 Offered capacity process

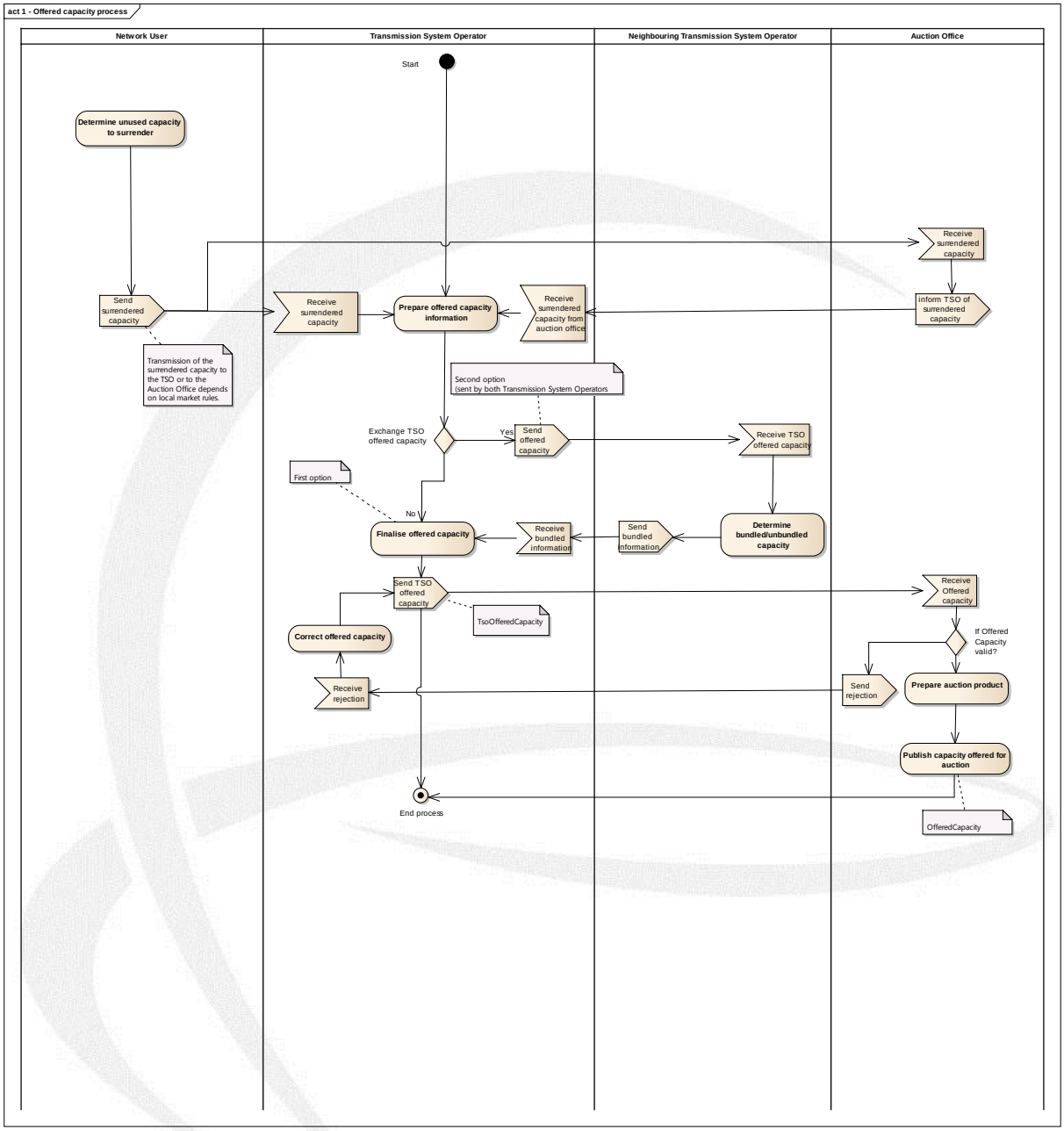



Figure 13: Offered capacity workflow

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

610 Auction Office to ensure the legitimacy of the bids and the secondary trades (only in the case
611 of Network Users that buy capacity).

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

### 3.3.3.4 Surrender capacity process

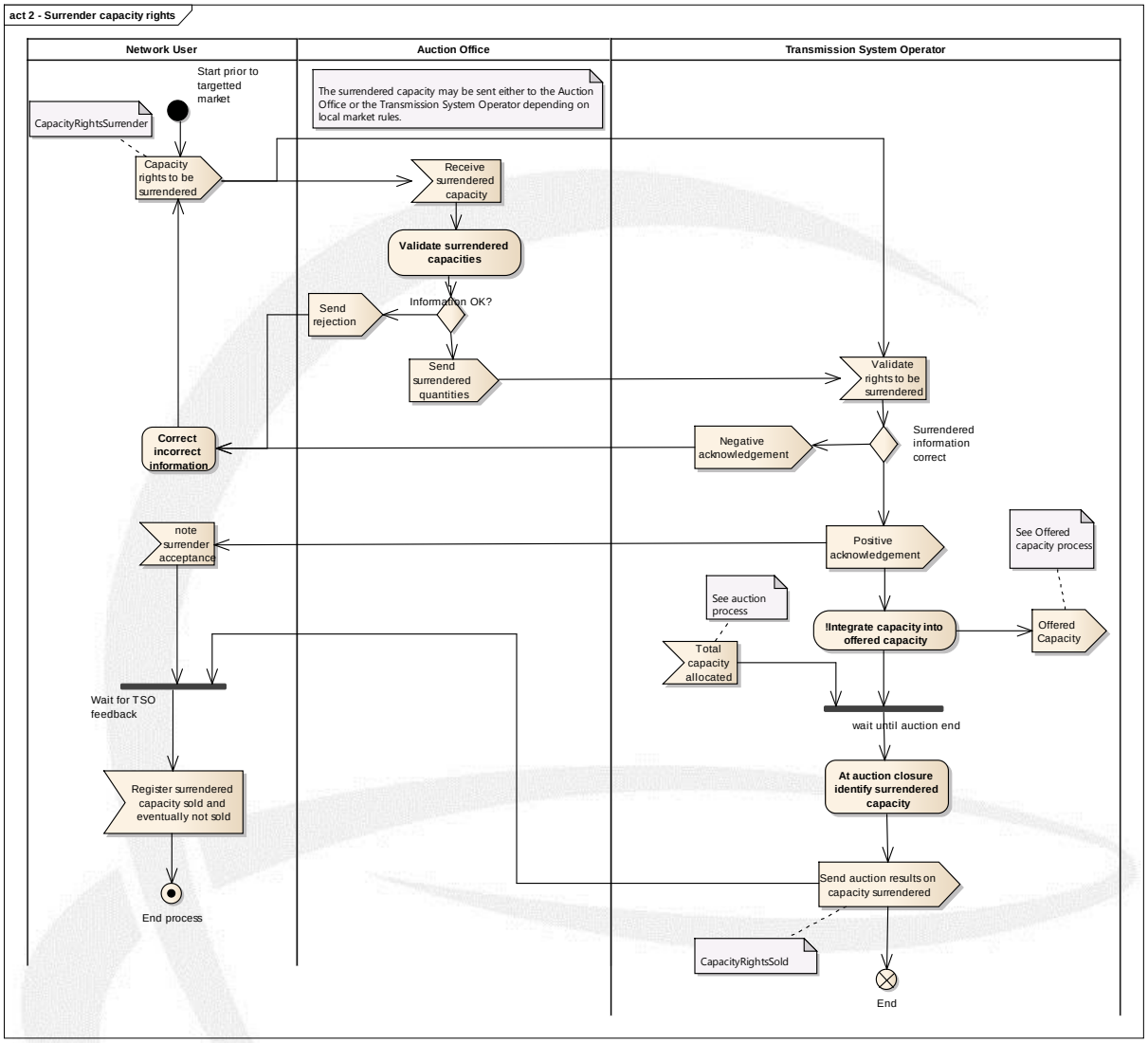


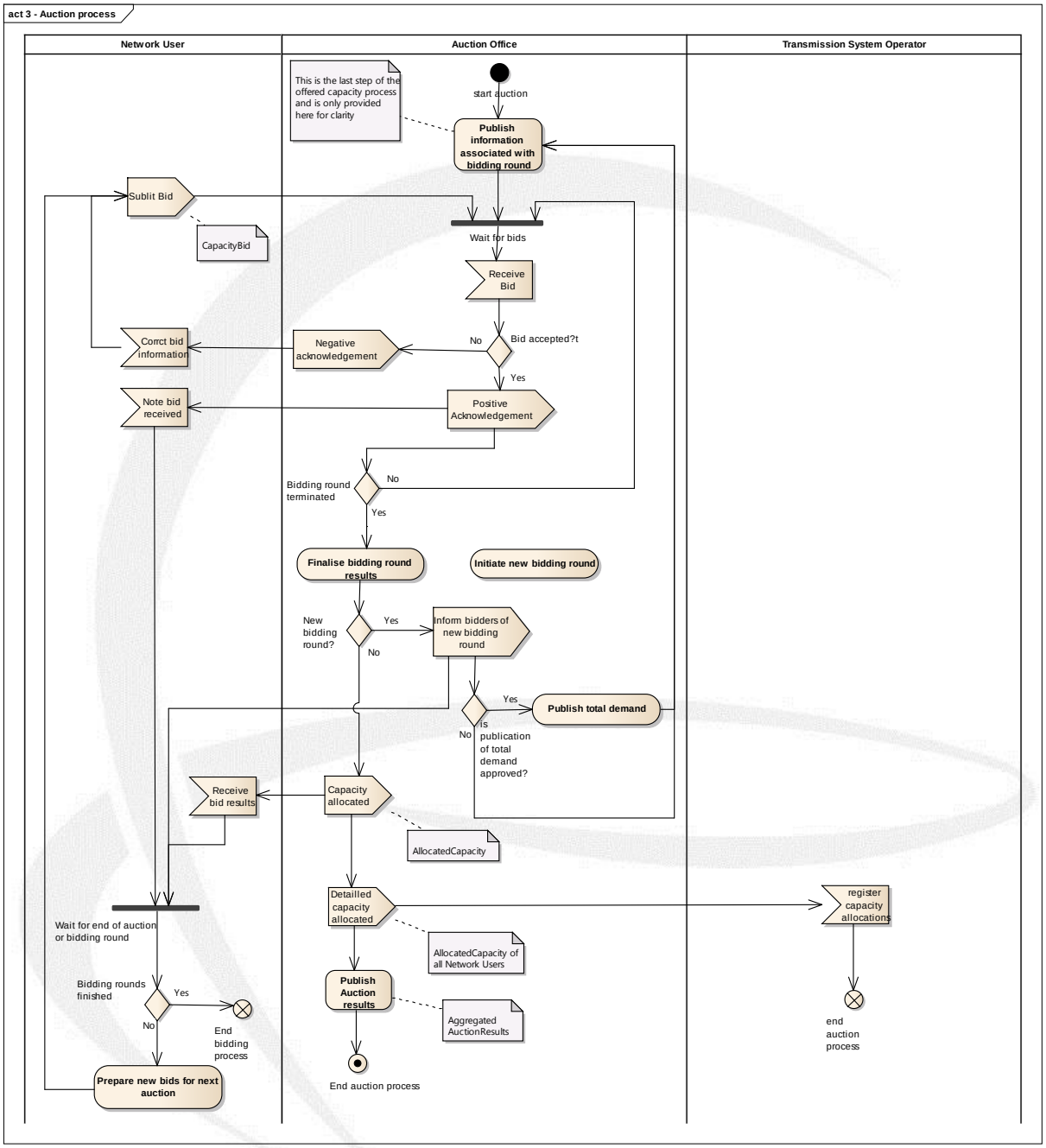

Figure 14: Surrender capacity process

If a Network User has more capacity than needed, the excess may be surrendered to the Transmission System Operators or to the Auction Office who sends the surrendered capacities to the relevant Transmission System Operators (depending on the bundling situation) for inclusion in the offered capacity.

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

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

626 ### 3.3.3.5 Auction process




627
628 Figure 15: Auction workflow

629 Transmission System Operators or the Auction Office on behalf of the Transmission System
630 Operators shall provide Network Users who bid in the day-ahead auctions with the option to
631 have valid unsuccessful bids automatically entered into the subsequent within-day auction
632 according to Article 15 (10) CAM NC.

The Auction Office validates each bid and informs the bid submitter of the outcome of the validation process. In the case of a rejection, the Network User may correct the bid 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.

The opening of a new bidding round in case of an ascending clock auction is subject to Article 17 CAM NC.

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 inform all involved Transmission System Operators and Network Usersabout 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 reverse 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.

### 3.3.3.6 Secondary market trade process

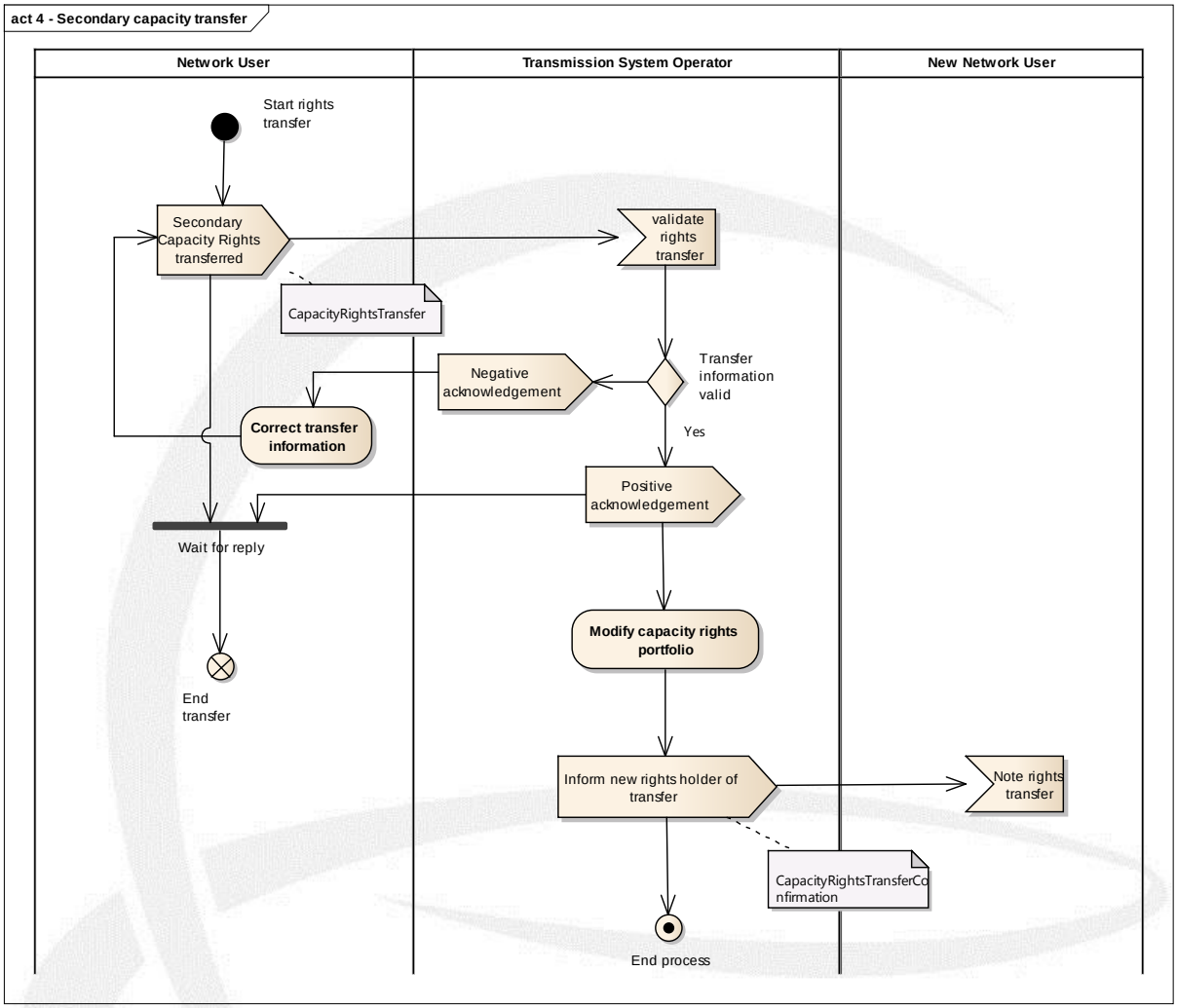


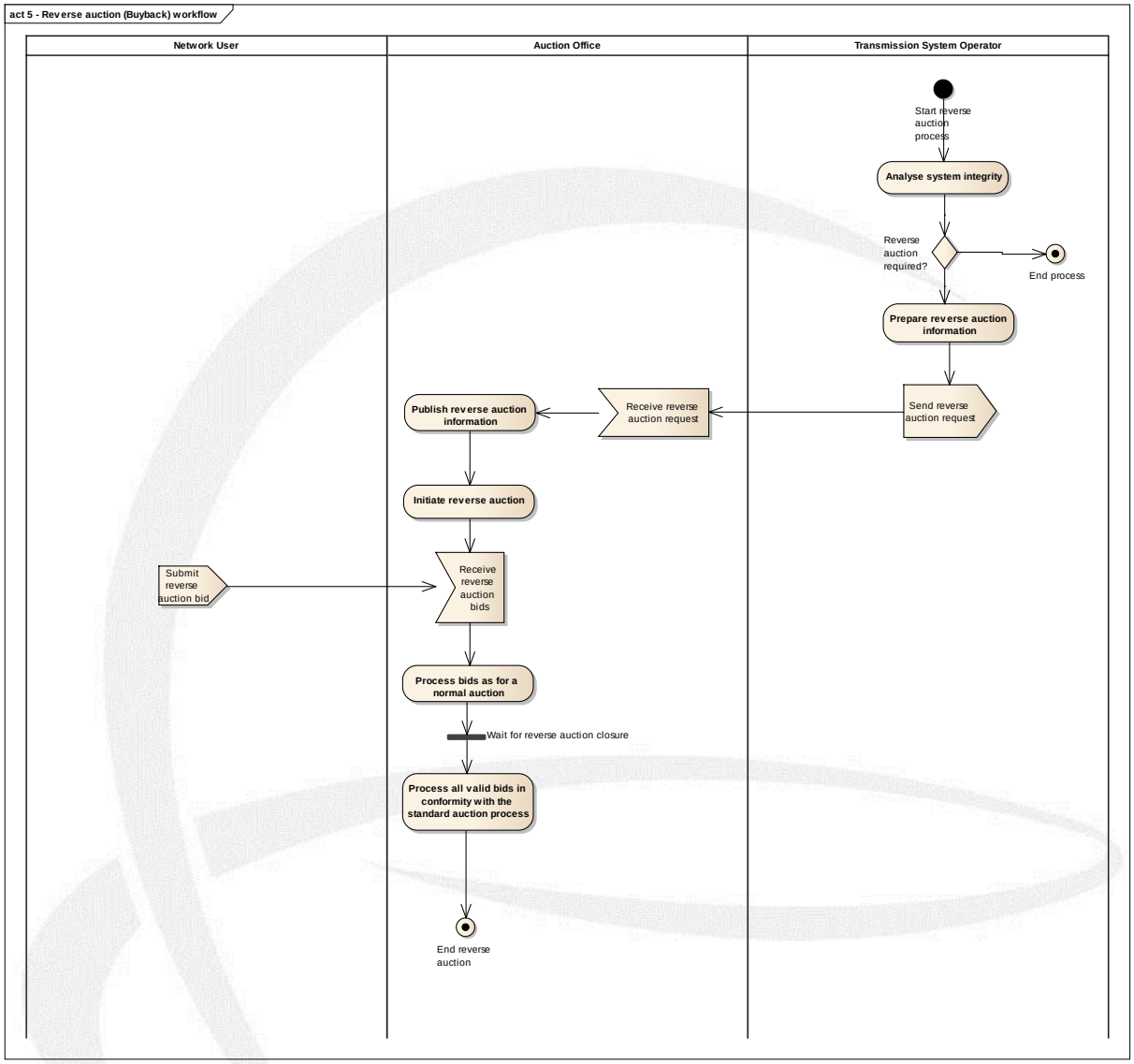

Figure 16: Secondary market transfer process

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

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

The Transmission System Operator(s) validate(s) the trade and when successful inform(s) directly or through the Auction Office the concerned Network Users of the capacity that has been transferred.

675 ### 3.3.3.7 Reverse auction process




676
677 Figure 17: Reverse auction workflow

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

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

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

685 The reverse auction process then takes place as defined within the auction process.

686 As as alternative to a reverse auction the Transmission System Operator may buy back the
687 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.

## 692 3.5 Definitions of the attributes used in all the models

| Name | Description |
|---|---|
| Account | 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 or Portfolio code<br>This is identified with the InternalAccountIdentification (see definition). |
| 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 |
| AuctionPeriod | The period during which an auction occurs |
| AuctionType | The type of the auction algorithm, e.g. uniform price auction and ascending clock auction |
| AuthorisedUserIdentification | The identification of a user authorised by a Network User |
| AvailabilityType | The identification of the type of availability of the capacity (e.g. firm or interruptible) |
| BIC | Bank Identifier Code |
| BidAmount | The total quantity of the bid |
| BiddingRound | The identification of the auction round where the capacity rights were allocated in an ascending clock auction<br>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 Network User's bid provided by the Auction Office or the Network |

| Name | Description |
|---|---|
| | User |
| BidPrice | The price bid on top of the starting price for the capacity requested<br>The price bid may be either a fixed or a floating amount depending on the tariff arrangements in place. |
| BidRollover | The indication to rollover non-allocated capacity bids from the Day Ahead auction to the first Within-Day auction |
| BillingPostalAddress | The billing address (of a person or business) to which mail is delivered |
| BookablePoint | A bookable point may be defined as the identification of a (inter)connection point (EIC), the flow direction, the “to TSO”and “from TSO” or in the case of one Transmission System Operator at both sides of the connection point the “to Market area” and the “from Market area”; in case of an unbundled point “to TSO” or “from TSO” is not required. |
| BookablePointName | The name of a bookable point as defined by the Transmission System Operator that can be displayed |
| BookablePointIdentification | A sequential number distinguishing one entity from another, for example for distinguishing bookable points |
| BookablePointType | The type of the bookable point such as LNG, storage, transmission, production,supply,… |
| BookedCapacity | Capacity already allocated to Network Users at a ConnectionPoint<br>This information may be transferred by the Transmission System Operator for the yearly auction according to Article 19 (5(a) & (b)) CAM NC. |

| Name | Description |
|---|---|
| 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 |
| CapacityAmountOffered | The amount of capacity offered for a given auction |
| 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 |
| CapacityOfferIdentification | Identification assigned by a Transmission System Operator to identify an offered capacity instance |
| 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 to the concerned Transmission System Operator<br>It is determined as set out in Article 17 (19) (in an ascending clock auction) and Article 18 (11) (in a uniform price auction) 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 |
|---|---|
| ConnectionPointIdentification | The identification of the ConnectionPoint |
| ContactType | The type of a Network User contact such as dispatching, capacity operation and invoicing |
| ContractReference | The reference of a Transmission System Operator assigned contract |
| ConversionAmount | The interruptible conversion amount |
| CreditLimitAmount | The amount of a credit limit |
| CreditLimitIdentification | The identification of a credit limit assignment to a Network User |
| CreditLimitUsed | The amount of a credit limit used on a primary or secondary market by a Network User |
| Currency | The identification of a currency as defined in ISO 4217 |
| eMail | An electronic mail address |
| FamilyName | Family name of a person |
| Fax | The telephone number of a fax machine |
| FirstName | Part of a person's full nomenclature |
| FromTso | The Transmission System Operator 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 |

| Name | Description |
|---|---|
| IBAN | International Bank Account Number |
| 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 |
| InternalAccountIdentification | The identification of an account (balancing group or portfolio code) managed by a Transmission System Operator for a Network User that is registered in the Transmission System Operator's area |
| InterruptibleConversion | The quantity of interruptable capacity already booked that may be converted into firm capacity in case of a successful firm capacity bid |
| InterruptibleReference | The reference to interruptible booked capacity that is used to auction for firm capacity |
| LargePriceStep | A fixed or variable amount that is defined per Interconnection Point and Standard Capacity Product |
| 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.<br>This is identified with the FromMarketArea and ToMarketArea (see definition). |
| MinimumCapacityAmount | The Minimum Amount of Capacity for the respective Standard Capacity Product which the Network User is willing to be assigned (origin: CAM NC)<br>The MinimumCapacityAmount is only used in case of uniform price auctions, where it is mandatory. |

| Name | Description |
|---|---|
| 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) |
| NetworkUserName | The name of the legal entity acting as Network User |
| 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 |
| ProductIdentification | The identification of a credit limit product that has a multiplication factor |
| PublicationDateTime | The publication date and time of a reverse auction |
| RegisteredPostalAddress | The address (of a person or business) to which mail is delivered, as distinct from the actual street address |
| ReservePrice | The minimum eligible floor price in the auction, being equal to the Regulated Tariff |
| ReverseAuctionType | The type of reverse auction that is used by the Transmission System Operator to solve a technical congestion in the transmission system (Buyback or flow committment) |

| Name | Description |
|---|---|
| RollOver | An indicator to inform the Auction Office that any unsold capacity shall be rolled over to the next defined period |
| ShareRate | A portion shared between Transmission System Operators of the auction premium |
| SmallPriceStepAmount | The amount of each small price step |
| SmallPriceStepNumber | The number of small price steps included in the LargePriceStep |
| StandardCapacityProductType | The duration of the standard capacity product: yearly, quarterly, monthly, daily or within-day |
| StartingPrice | The price defined by the Transmission System Operator which is the minimum price in an auction for a certain capacity product |
| Status | The condition of an object (e.g. Auction, Network User, bookable point), such as rejected, modified, canceled, valid, active… |
| TermsAndConditionsAccepted | A flag to indicate that the Terms and Conditions have been accepted by the authorised user |
| Timestamp | The date and time of the current credit limit situation |
| Title | Prefix added to a person's name |
| TotalCreditLimit | The total credit limit provided by the Transmission System Operator and assigned to the Network User |
| ToTso | The Transmission System Operator where the gas is entering the network |
| ToMarketArea | The Market area where the gas is entering the network |
| TradingMarketType | Market in which the Network User is allowed to trade (Primary or Secondary market) |

| Name | Description |
|---|---|
| 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 |
| TSOIdentification | The identification of a Transmission System Operator |
| TsoPriceCap | The price limit that a Transmission System Operator is willing to pay for capacity in a reverse auction |
| UnitOfMeasure | The unit of measure in which the capacity amount is expressed |
| UnitOfPrice | The unit of measure in which the price is expressed |
| ValidityPeriod | The period of validity of an object |
| VatCode | The value added tax code assigned by a national organisation |
| WebsiteAddress | URL of a TSO-Website, that contains all commercial terms and conditions |

## 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 basic information requirements for a given information flow, knowing that a given piece of information may be provided by an equivalent set of attributes This BRS is targeted towards business-to-business application interfaces or in a more user-orientated fashion through a web-based service.

### 3.6.1 Bookable point adminstration process

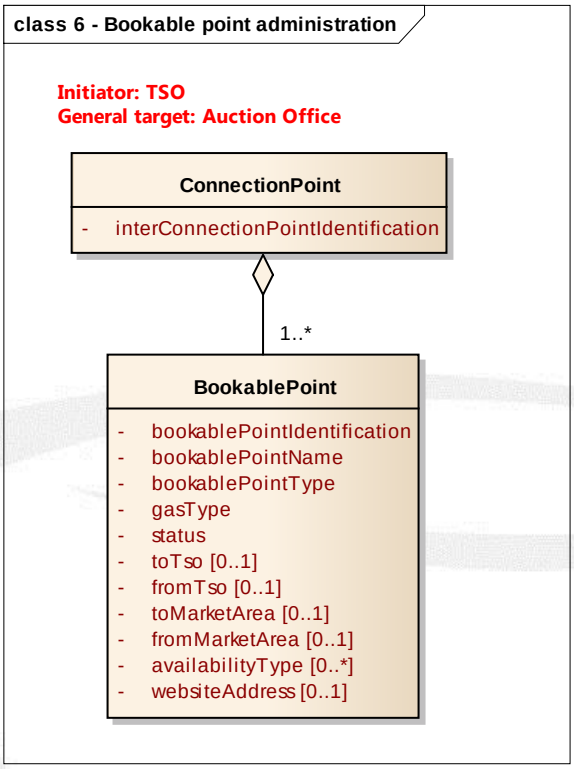



Figure 18: Bookable point administration requirements

## 3.6.2 Network User Registration process

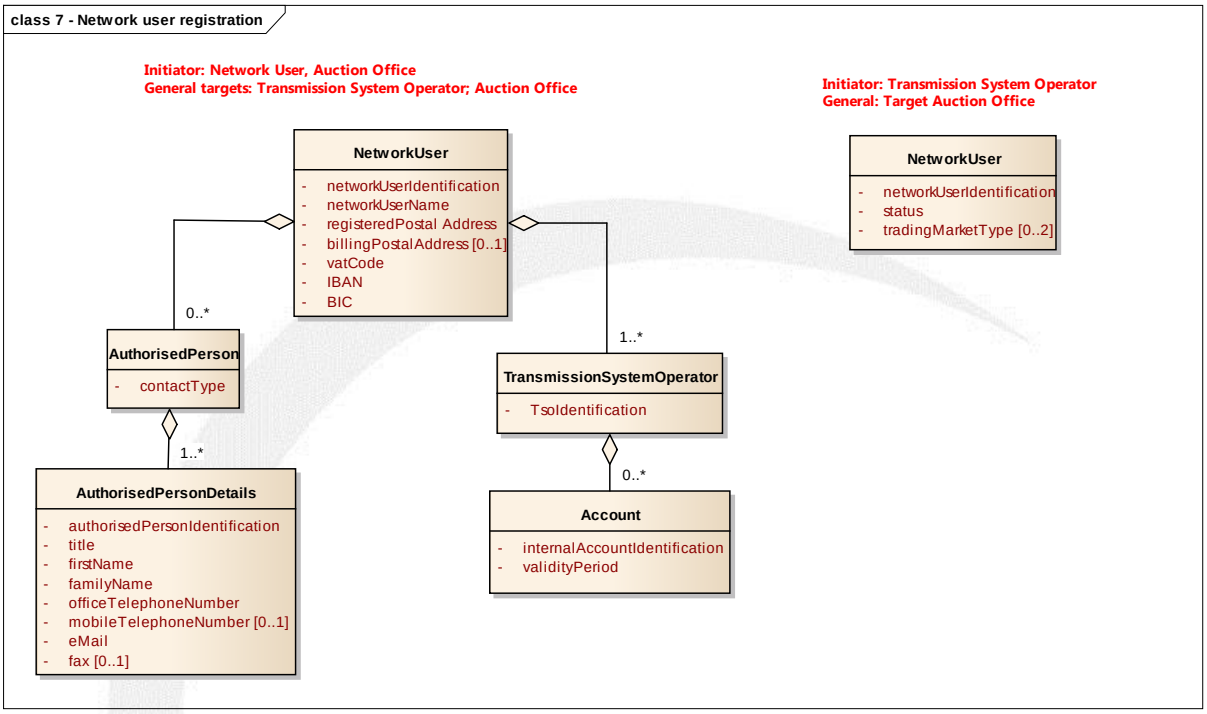



Figure 19: Network User registration requirements

### 3.6.3 Account Registration process

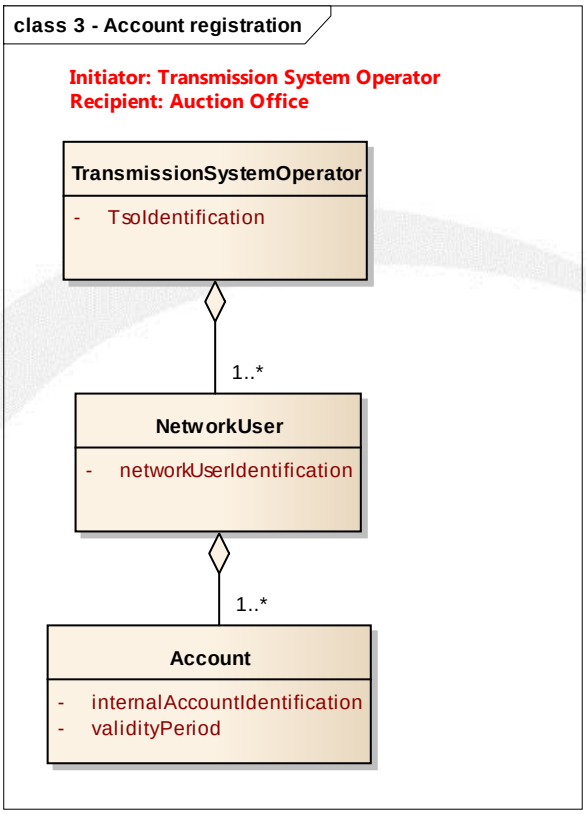



Figure 20: Account registration requirements

### 3.6.4 Offered capacity process

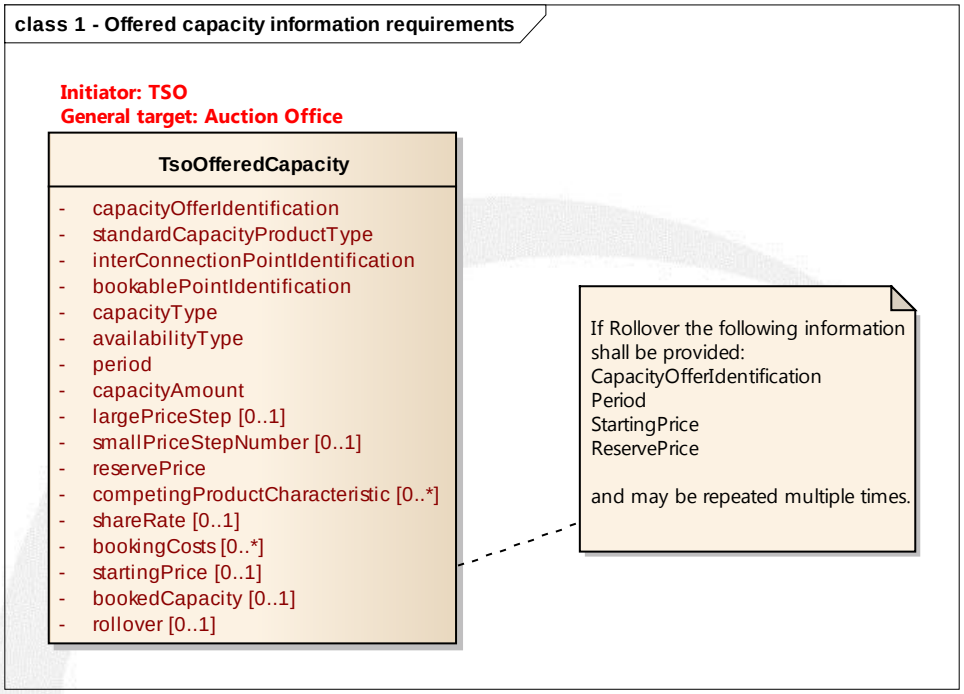



Figure 21: Transmission System Operator Offered capacity information requirements

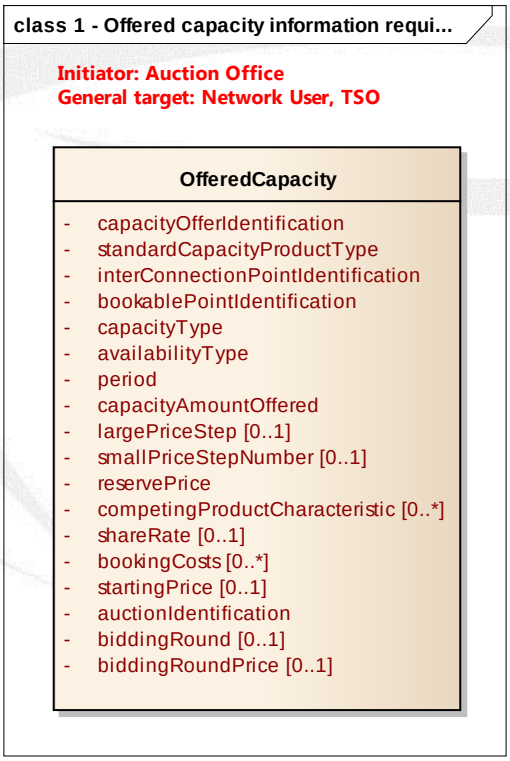



Figure 22: Offered capacity information requirements

### 3.6.5 Surrender capacity process

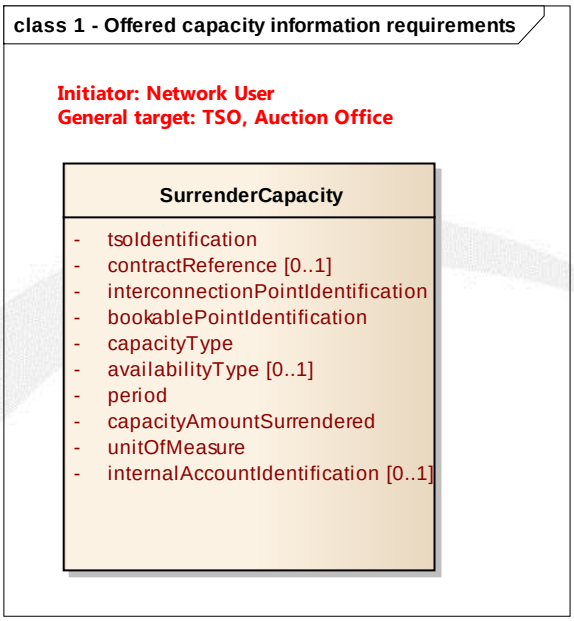



Figure 23: Surrendered capacity information requirements

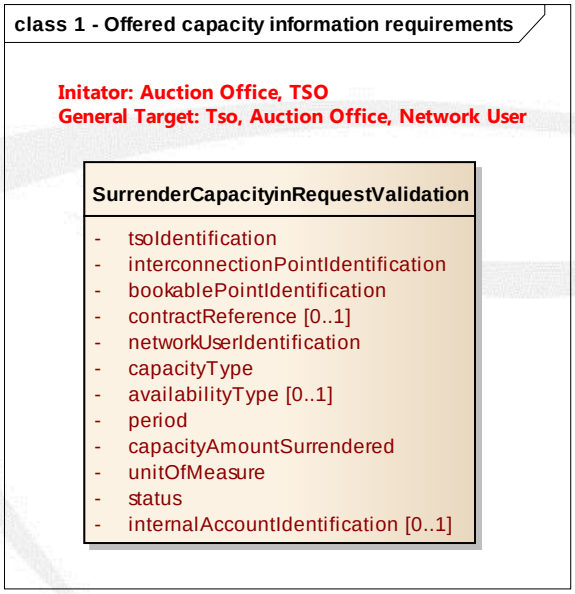



Figure 24: Surrender capacity request validation requirements

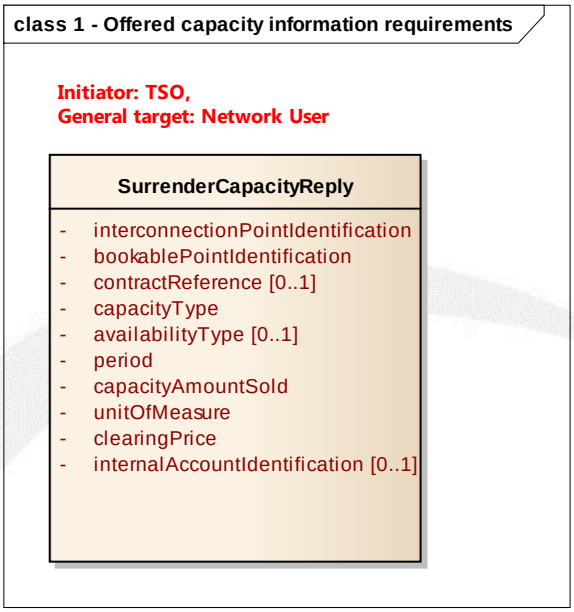



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Figure 25: Surrender capacity result requirements

### 3.6.6 Auction process

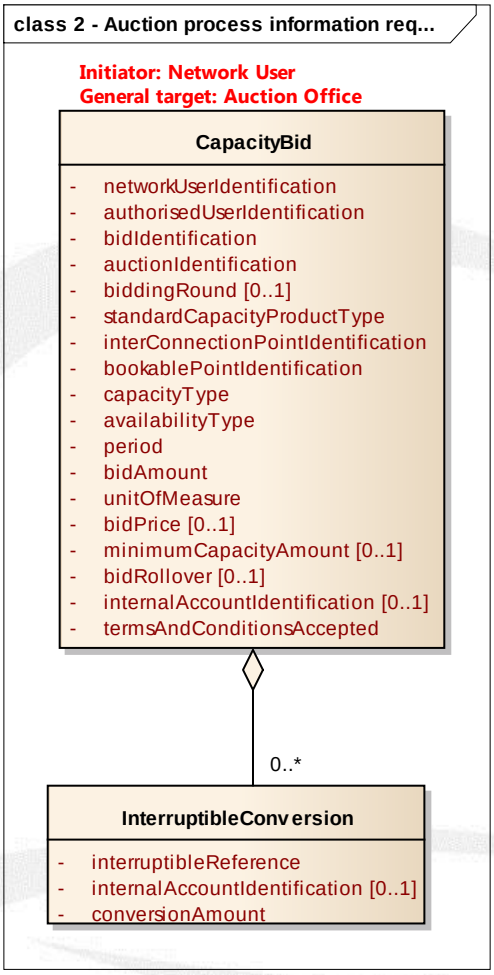


Figure 26: Bid information requirements

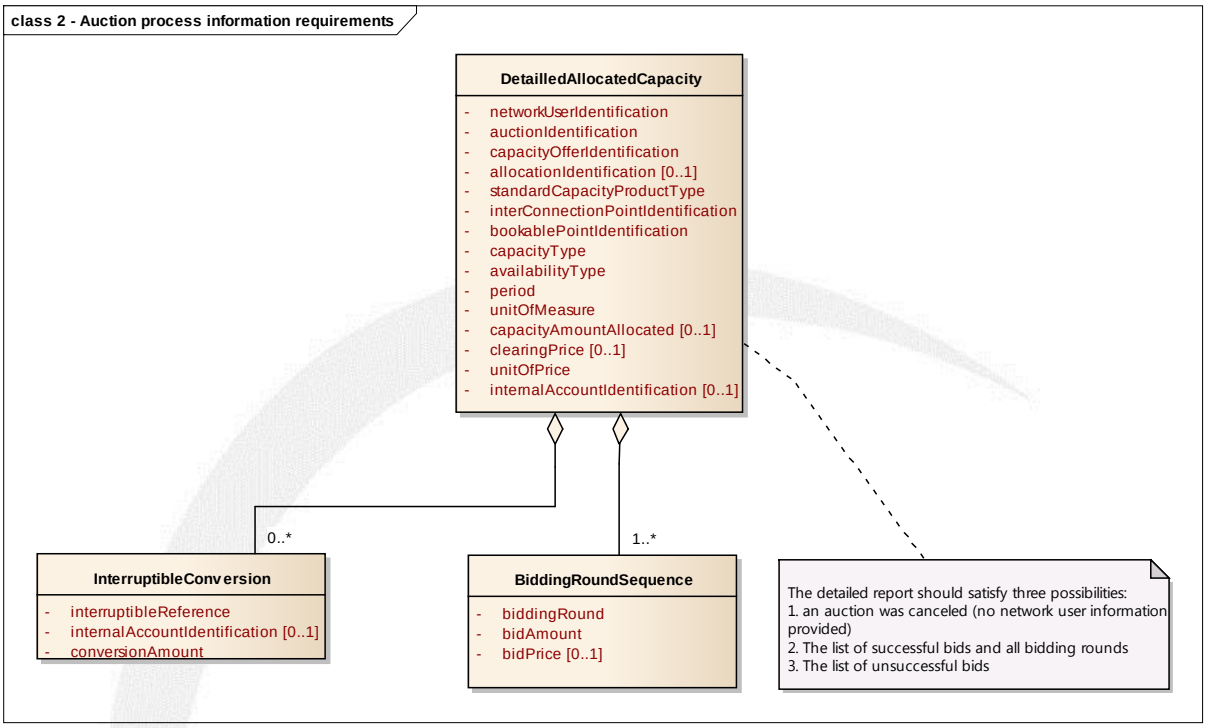


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Figure 27: Detailled capacity allocated information requirements

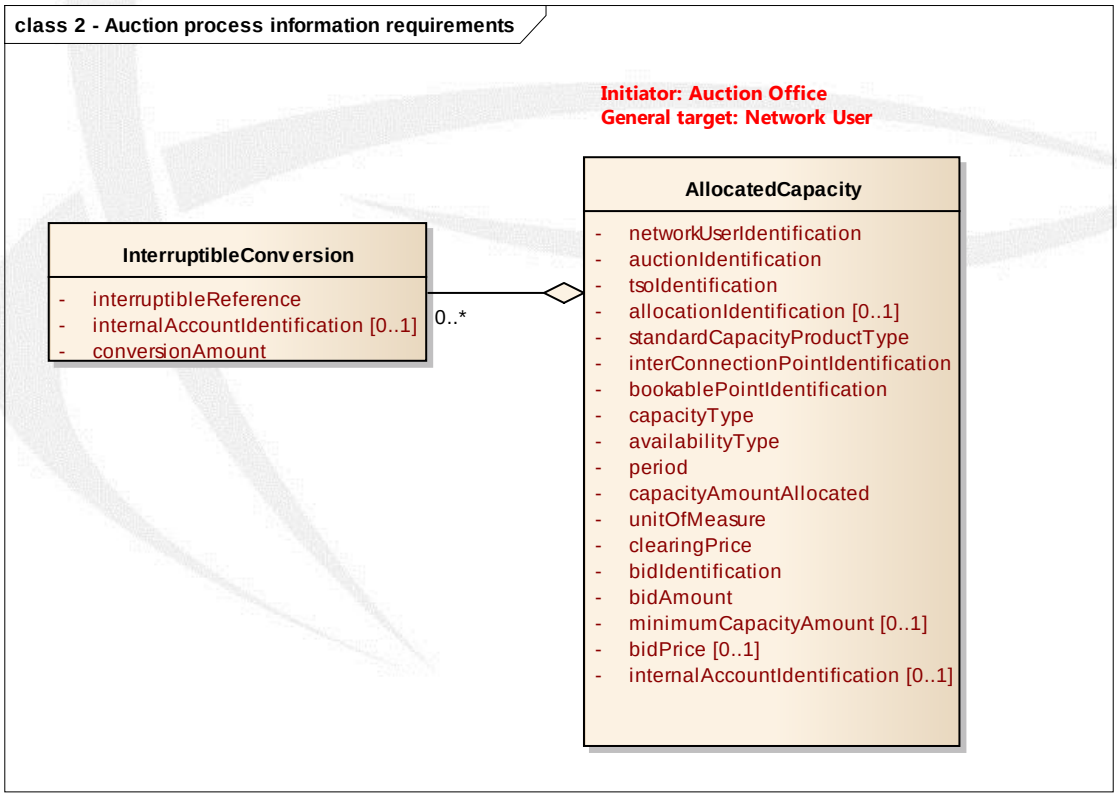


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Figure 28: Allocated capacity information requirements

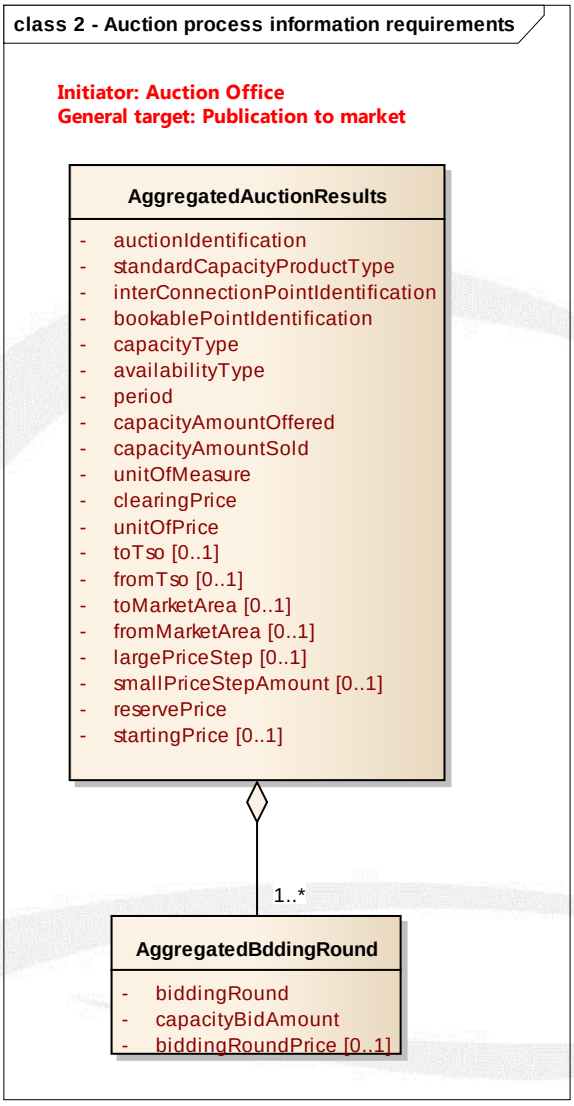


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Figure 29: Aggregated auction results

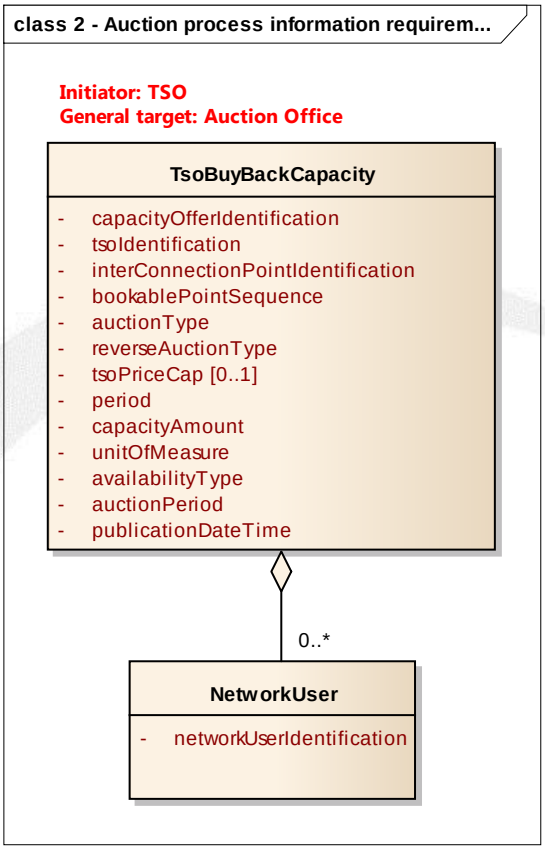


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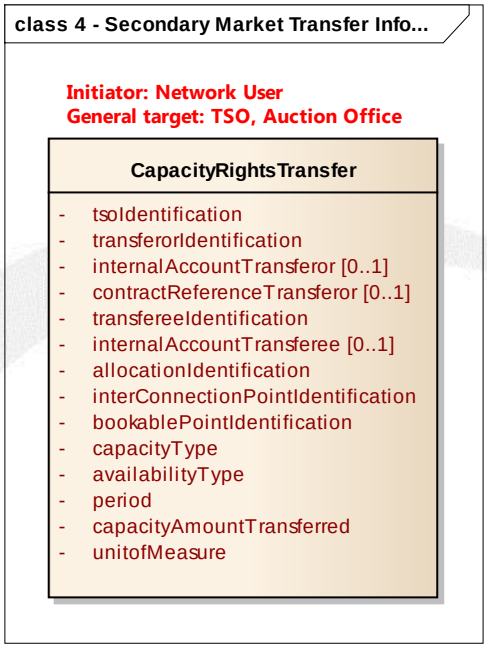
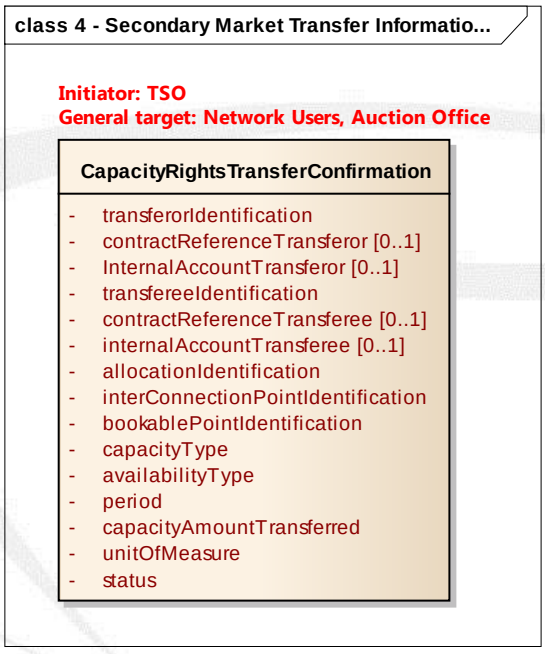
Figure 30: Transmission System Operator Buy back capacity information requirements

738 ### 3.6.7 Secondary market transfer process




739
740 Figure 31: Secondary market capacity rights transfer information requirements




741
742 Figure 32: Secondary market capacity rights transfer confirmation information requirements

### 3.6.8 Credit limit process

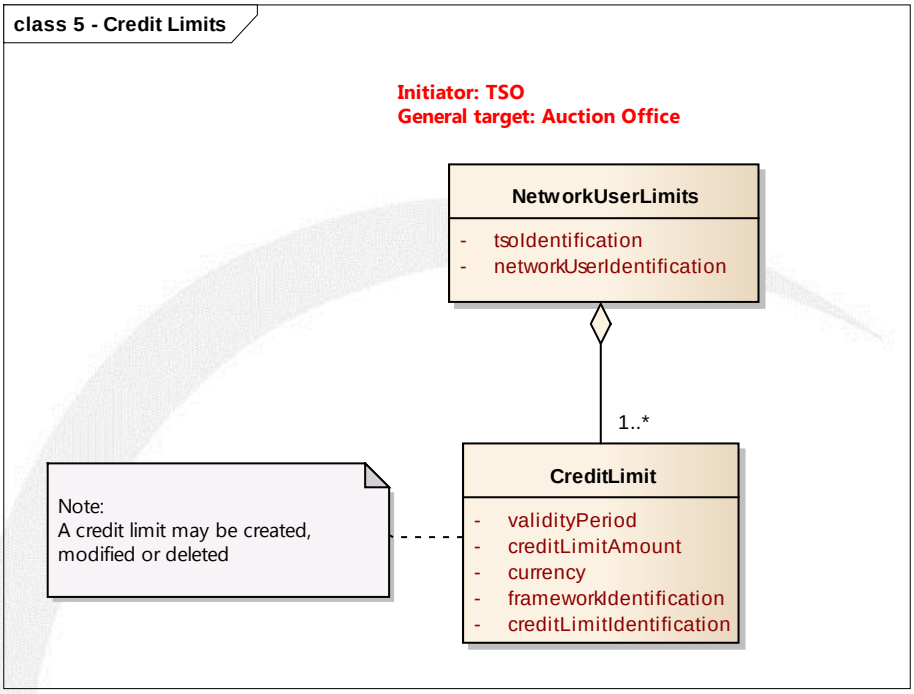



Figure 33: Network User credit limit information requirements

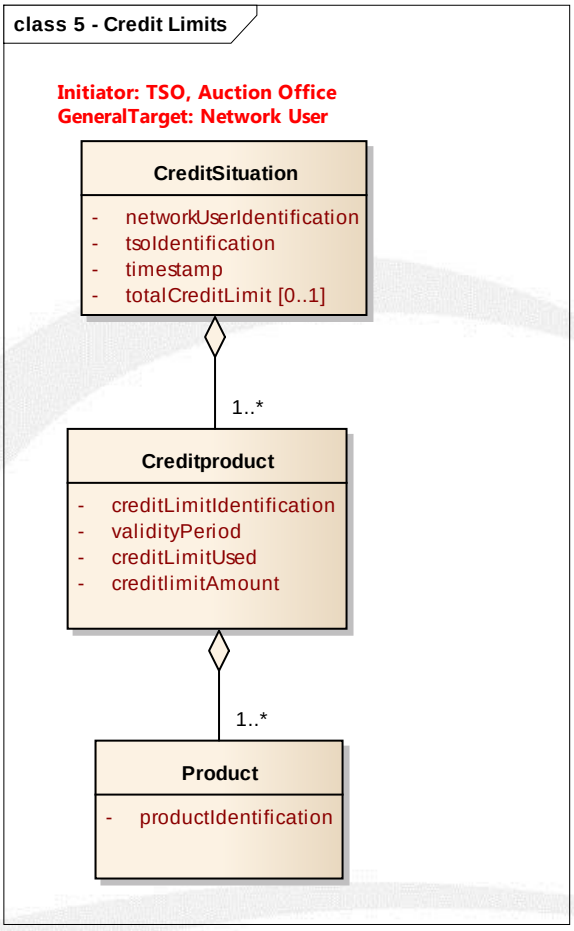



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Figure 34: Network User credit situation requirements