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M7 Auction - Bidder Handbook

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Terminology

Term	Explanation							
Call Phase	Phase, during which bids can be submitted, i.e. while the auction is in phase "Running"							
DBAG	Deutsche Börse AG							
Finished Auction	Auction that is in "Finished" or "Cancelled"							
Freeze Phase	Phase, during which bids can no longer be submitted but the auction is not finished yet, i.e. while the auction is in phase "Closed"							
GUI	Graphical User Interface							
Live Auction	Auction that is in "Published", "Running" or "Closed" phase							
XML	Extensible Markup Language							

Table 1: Terminology

1 Introduction

1.1 M7 Auction

M7 Auction Service offers single-sided auctions for the various markets with a dedicated quantity to be auctioned on behalf of the selling or buying entity.

This document provides Bidder users with a functional overview of the M7 Auction, which is the platform where the auction for various products is conducted. The M7 Auction is technically operated and hosted by DBAG.

The Service is a web-based solution accessible via the internet with an internet browser.

2 GUI Overview

2.1 Functional Overview

The M7 Auction provides Bidders with trading functionality via a Graphical User Interface (GUI).

The M7 Auction supports these user roles which have different set of rights:

- Bidder has full access to the trading functionality
- View User has only read access to the trading functionality. This user can view the bids placed by other Bidders assigned to the same member(s) however not able to place, modify, or cancel any bids.

The Reporting Engine provides the M7 Auction user with a reporting tool. The reporting engine generates reports based on the information available in the data store.

2.2 Graphical User Interface (GUI)

The GUI provides the user with an interface to the M7 Auction and allows the user to interact with the M7 Auction. The service is configurable for multiple languages on the instance level.

The users are not required to install any additional software on their workstations and do not need any detailed IT know-how. The M7 Auction GUI is simple and easy to use.

2.3 Menu Structure of M7 Auction GUI

Upon successful login, the M7 Auction GUI is displayed. In the menu on the left the user can find the Auction and Messages items and in the bottom there is the user's configuration icon (symbol of cogwheel with user's initials inside). Below this icon the user can find options for logout (power symbol), for getting the Market Operator contacts (symbol of business card) or for changing the password (key symbol).

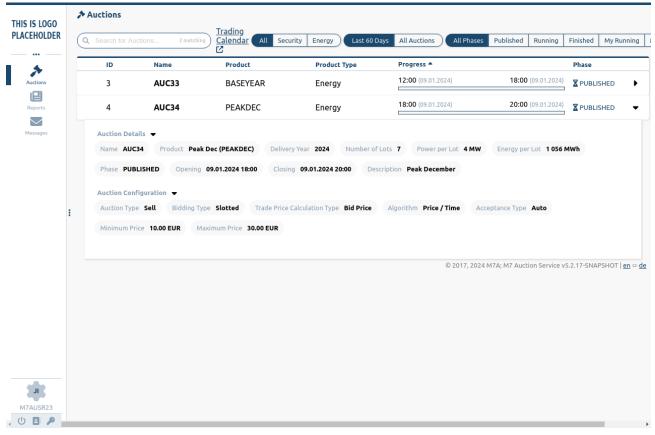


Figure 1: Menu structure

2.4 Login

In order to start the M7 Auction GUI, the user must first open the M7 Auction login web page.

Every user receives a confirmation email right after his/her user account has been created. The email contains a URL link to guide the user through the setup of the password. The URL link is only valid for 30 minutes. However the user can still set up the password by clicking the 'I want to reset my password' link on the login page.

To access the system, the M7 Auction user needs to enter a valid user name and password on the login page.



Figure 2: Login Screen

The user (login) ID must have at most 8 characters in length and contain only characters 'a'-'z', 'A'-'Z', '1'-'9'. Special characters are not allowed.

The password must be at least 12 characters long and contain one or more characters from at least three groups listed below:

- 'A'-'Z'
- 'a'-'z'
- '0'-'9'
- Special character(s)
 - o ;,@#\$%^&+=
 - o an underscore sign

Additionally, the password must be different from the last 10 passwords used for this user account.

On the login page the user has also an option for reseting his/her password in case it was forgotten or in case the account has been locked from any reason. When the user clicks on the 'I want to reset my password' link he/she is asked for entering the user ID. After the confirmation the user receives an email with an URL link where a new password can be set up. The URL link is valid for 30 minutes. If the password is not reset within this timeframe the user needs to request the password reset again. When the user does not have any role assigned, then the email is not sent and user should contact Market Operator.



Figure 3: Reset Password Screen

2.5 Single Login

Single login allows each authorized user to login to the M7 Auction one time per User ID. If a user is already logged into the system, a second login attempt with the same User ID will be successful, however the first login will be automatically terminated.

2.6 User's Configuration

The "User's configuration" icon of the cogwheel symbol with user's initials inside is placed in the bottom of the left menu. When the user clicks on it, the user's configuration screen is displayed. The screen shows the user's full name and user's ID. If the user is able to place bids (users with Bidder user role) then there is also a bidding section where the default values can be set up. Following values can be set up:

- Default Price
- Default Quantity (available only for M7A instance with the Open Bidding Type turned on)
- Price Step
- Quantity Step (available only for M7A instance with the Open Bidding Type turned on)



Figure 4: User's Configuration Screen

The setting of these values are persistent and they are not deleted after user is logged out. The values can make the bidding easier and faster. The default price and quantity is automatically pre-filled when the user is placing bids. The user can just adjust the final values by using "+" and "-" buttons and increase or decrease the value by respective step. The user needs to keep in mind that if the user's settings collide with the auction setting of Minimum or Maximum Price, Smallest Quantity Unit, or Maximum Bid Size then general default values are used. The user is appropriately informed about this conflict on the bidding screen.



Figure 5: Conflict of user's default values

If there is no conflict default price and quantity are applied together with their steps. The respective steps are visible upon clicking the cogwheel icon in the upper right-hand corner of the bidding screen. More details about bidding can be found in chapter Submitting Bids and Modifying Bids.

In the second half of user's configuration screen is authentication section displayed. User finds here the explanation of Two-Factor Authentification (2FA) and Two-Factor Authentication checkbox for turning 2FA on or off. This checkbox is by default turned off. When user ticks it and hits "Apply changes" button, 2FA is turned on. As soon as 2FA is turned on, QR code will be generated together with Secret key, which is a written text code. Further instructions on how to use 2FA with one-time password are displayed next to the generated QR code.

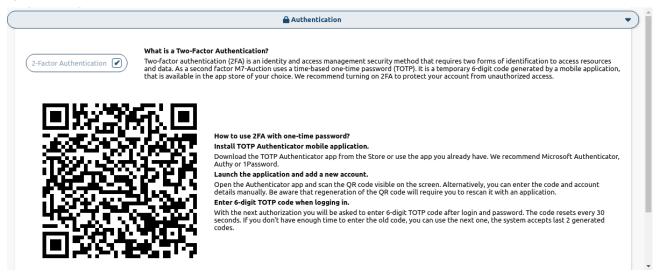


Figure 6: How to use 2FA with one-time password

After user has enabled 2FA, with every login into application he has to enter besides user ID and password also 6-digit time-based one-time password (TOTP) code generated by his authenticator app. The code resets every 30 seconds. If a user doesn't have enough time to enter the old code, he can use the next one. The system always accepts last 2 codes generated by authentication app.

In case user forgets his TOTP code, he can reset it anytime on login page by clicking the link "I want to reset my 2-factor authentication".



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Figure 7: Login Screen

A new window will pop up, where user has to enter his user ID, email and password and hit enter or "Request 2-Factor Authentication Reset" button. User will receive an email (see also spam/junk email folder) with a reset link.

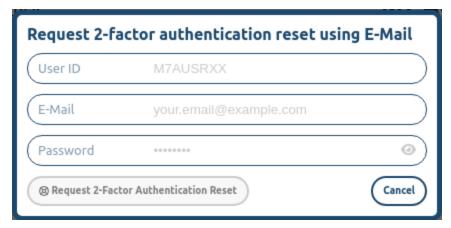


Figure 8: Request 2FA reset using E-Mail

When user follows the reset link, a new window for setting up of 2FA will appear. User can select here whether he wants to disable 2FA or keep it enabled. If later is the case, he has to open his authenticator app and scan a new QR code, which is together with Secret Key displayed on the page. Alternatively, he can insert account details and Secret Key manually as described above.



Figure 9: Set your new 2FA

In case user cannot reset 2FA on his own, 2FA emergency recovery is implemented. Administrator, Admission or Market supervision user has to log into application, navigate to Users at the panel on the left hand side of the page and select a concrete user for which 2FA should be disabled. When the user was selected, at the bottom of "User detail" he can disable 2FA by hitting "Disable 2-Factor Authentication" button.

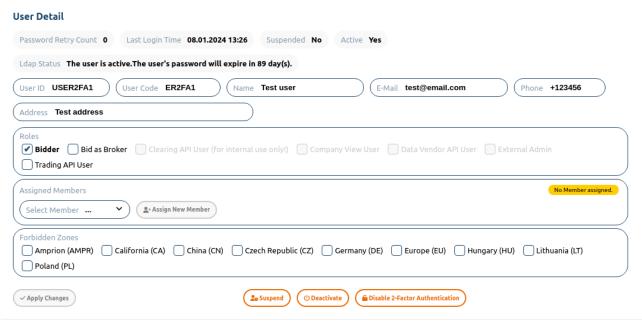


Figure 10: 2FA emergency recovery

If user forgets he enabled 2FA or he enters incorrect TOTP code, application returns error message that says "Incorrect or missing tokens". User can do unlimited number of attempts to access application with TOTP code. Turning 2FA on is not mandatory, but it is recommended in order to protect your account from any unauthorized access.



Figure 11: Login failure due to incorrect or missing token

2.7 Change Password

The "Change Password" icon with the key symbol is placed in the bottom left hand corner below the user's icon. When the user clicks on "Change Password" menu item, the user is navigated to a "Change Password" screen that allows the users to change their password. User has to provide the old

password (for security reasons) and type the new password twice (to avoid typos). There is also an option to display the password policy described above, see chapter Password Policy.

Three weeks before a password is about to expire, the user starts to receive a warning notification to change his/her password upon login. The notification informs the user about the remaining number of days before the password expires. The blinking yellow "Change Password" icon also warns the user about oncoming password expiration.

One week before the password expires the user starts to receive an error notification to change his/her password. The blinking red "Change Password" icon alerts the user to oncoming password expiration.

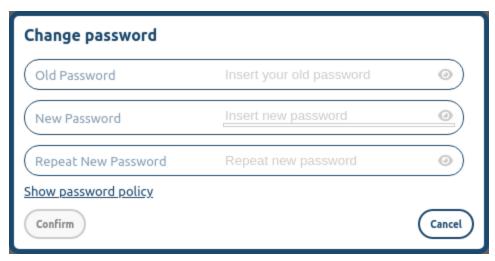


Figure 12: Change Password Screen

2.8 Reset Password

In case a user forgets the password, the account is locked due to inactivity or the user submitted an incorrect password for 3 times, the user can set up new password and renew his/her account by clicking on the 'I want to reset my password' link available on the initial login page, see chapter Login. The user must fill in user ID and email registered for this user ID in order to request an email containing a URL link to guide the user through the setup of the new password. The URL link is only valid for 30 minutes. In case the provided email does not match the one registered for the provided user ID, no email is sent and no warning is displayed.

2.9 Password Policy

The password policy for external users can be displayed in the application UI when the user is setting new password and clicks on the "Show password policy" link in the dialog.

2.10 Logout

The Logout icon is placed in the bottom left hand corner below the user's icon. Upon successful logout the M7 Auction login web page is displayed. The user is automatically logged out after 30 minutes of inactivity.

If the user is logged in at the time when this user has been deactivated or all user's roles have been removed, then this user is automatically logged out.

2.11 Messages

In the menu of the application, there is a "Messages" link which leads to Messages section.

The Messages section shows:

- all status changes of the auctions (as well as all Auction Details updates).
- the announcements sent by Market Operator

All messages from the last 3 months can be viewed on the Messages screen.

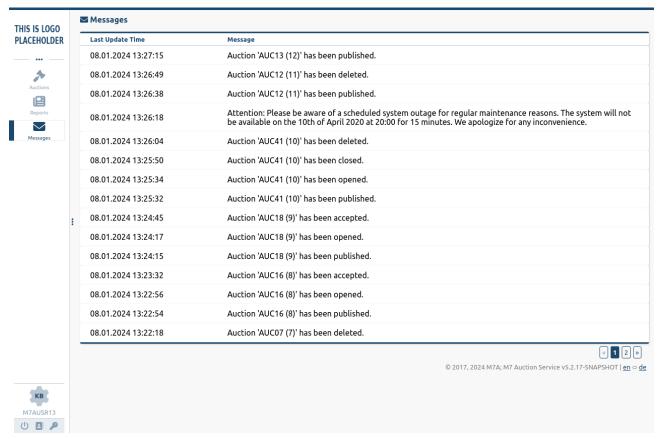


Figure 13: List of Messages

The most recent message is also displayed to a logged in user as a "Info Notification" on the top of the application screen. The users have an instant overview of what happens in the system which makes it harder for the users to overlook any important announcement.

3 Auctions

The menu item "Auctions" gives the Auction Bidder users an overview of the auctions. At the top of the auction overview users can also find a URL link to the auction calendar if this link is configured for an M7A instance.

3.1 Auction Overview

The auction screen allows the bidders to view the list of all available auctions. The auction overview depends on the auctioned product type. The displayed information differs from one product type to another. Regardless of the auctioned product, the auction overview displays always following items:

- ID
- Name
- Product
- Progress
- Phase

The users can always see the auction ID, Name, the auctioned Product, and the phase of all listed auctions. The Progress informs about the opening and closing time. The auction in the running phase has a countdown timer placed above the progress bar. The users can see how much time remains until the end of the auction. Both the progress bar and the countdown timer are also available on the bidding screen.

When an M7A instance is configured to auction only the Energy product type then the auction overview displays in addition the items specific for Energy auctions:

- Number of Lots
- Energy per Lot

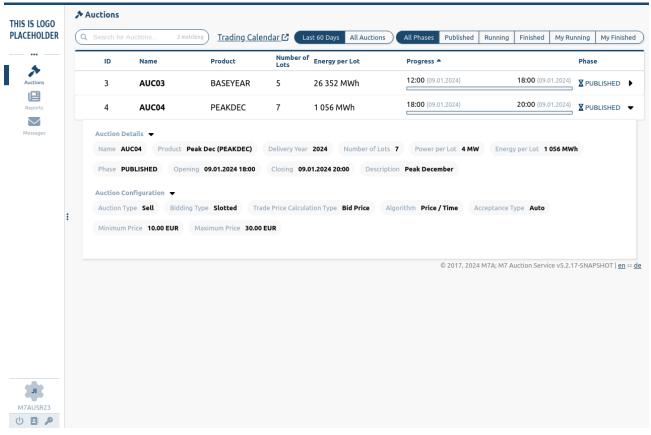


Figure 1: List of Energy Auctions

Similarly, when an M7A instance is configured to auction only the Security product type, the auction overview displays in addition the items specific for Security auctions:

Quantity

If the M7A instance is configured to auction both Security and Energy product types then the specific items of the products are not displayed directly in the auction overview, however, they are still available in the detail of each auction. Instead of product specific items there is a Product type item informing whether the auction is related to Energy or Security product.

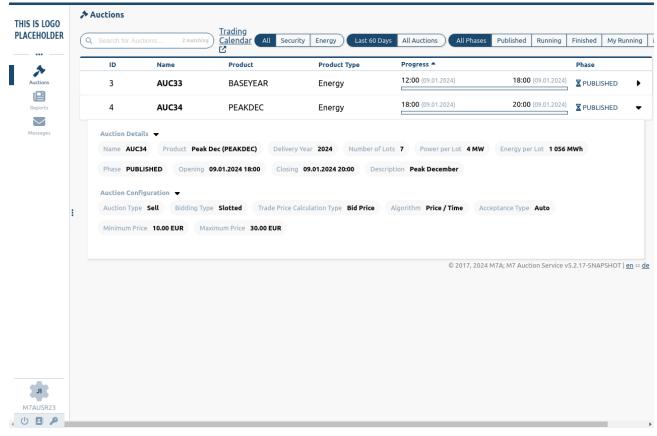


Figure 2: List of Auctions

In case the auctioned quantity is offered by multiple auctioneers and countries, the user can view the quantity allocations per country in the Auctioneer Data Matrix. This matrix is available only when M7A instance is configured to support the EU Auctioneers functionality.

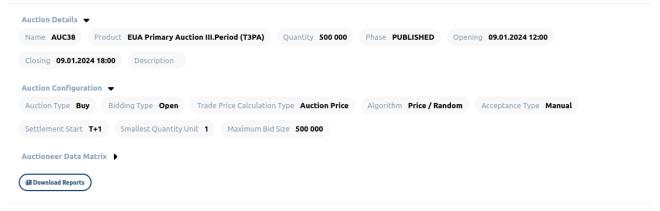


Figure 3: Published EU Auction

Auctions can be sorted according to all columns. The progress bar is sorted according to opening time.

The Auction details appear whenever the user clicks on the auction item from the list. Following fields are available in the Auction configuration section:

- Auction Type
- Bidding Type
- Trade Price Calculation Type
- Algorithm
- Acceptance Type
- Minimum Price (This field is available only if the value is set up by Market Operator.)

- Maximum Price (This field is available only if the value is set up by Market Operator.)
- Settlement Start (This field is available only for security auctions.)
- Smallest Quantity Unit (This field is available only for auctions with Open Bidding Type.)
- Maximum Bid Size (This field is available only for auctions with Open Bidding Type.)
- Description

The Auction Type field specifies if the created auction is Sell or Buy auction. If only one Auction Type is configured for an M7A instance, then this field is not visible.

The Bidding Type field specifies if the auction supports open bidding or slotted bidding. When the open bidding (value Open) is used then bidders can place arbitrary number of bids. Part of each bid is number of units of an asset being traded like quantity or number of lots. When the slotted bidding (value Slotted) is used then bidders are limited by given number of bids they can place, called slots. Each slot represents one lot or fixed number of units of an asset being traded. If only one bidding type is configured for an M7A instance, then this field is not visible.

The Trade Price Calculation Type field specifies if all accepted bids of a finished auction have one same price equal to the last accepted bid (value Auction Price). Or if each accepted bid has a price of the placed bid (value Bid Price). In case of Auction Price setting, the auction cannot be manually accepted if it is undersold. If only one trade price calculation type is configured for an M7A instance, then this field is not visible.

The Algorithm field specifies which bids are allocated if there are more bids with the same price. There are two algorithms available – Price/Time and Price/Random. When the Price/Time algorithm is used then bids which are submitted earlier are allocated first. When the Price/Random algorithm is used then same bids are allocated randomly. If only one algorithm is configured for an M7A instance, then this field is not visible.

The Acceptance Type field specifies if the auction can be automatically accepted (value Auto) or if the Market Operator has to accept this auction manually (value Manual). In case of auction with automatic acceptance, the placed bids which are outside allowed deviation limit are automatically rejected. If only one acceptance type is configured for an M7A instance, then this field is not visible.

The Minimum Price and Maximum Price fields define hard auction limits. The system does not allow the user to place bids outside these limits if they are defined.

The Smallest Quantity Unit field specifies the smallest tradable unit that is allowed for an auction, i.e. a bid can only be submitted if it is a multiple of the Smallest Quantity Unit. This field is available only for auctions with Open Bidding Type.

The field Settlement Start specifies when the settlement of the trade should happen. There are five possible values for the field: T+1, T+2, T+3, T+4, T+5. This means that the settlement should be done that number of days after the trading day. Since weekends and holidays are not trading days, they are skipped.

The Maximum Bid Size field defines the upper limit for each submitted bid. If no value is specified, the upper limit for the bids will be the auctioned quantity or auctioned number of lots. This option is available only for auctions with Open Bidding Type.

The Description field provides possibility to specify additional auction related details. It is a single-line field that allows maximum of 255 characters.

By default, all available auctions are displayed in the auction list. However, the user can search for specific auctions by entering any auction details into the search field.

The user can choose whether to view only recent auctions (that were closed not later than 60 days ago) or all auctions. Following options are available for auction closure time filter:

- All Auctions
- Last 60 days (default)

When All auctions option is selected, then the auction screen may be slower to load and refresh.

The user can also choose whether to view only auctions in a specific phase. Following options are available for auction phase filter:

All Phases (default)

- Published
- Running all auctions in phase "Running" or "Closed"
- Finished all auctions in phase "Finished" or "Cancelled"
- My Running all auctions in phase "Running" or "Closed" in which the user has a bid
- My Finished all auctions in phase "Cancelled" or "Finished" in which the user has a bid.

The user can also choose whether to view only auctions of the specific product type. However, this product type filter on the screen is visible only if both Energy and Security product type can be auctioned. Following options are available for product type filter:

- All (default)
- Energy
- Security

The auction overview changes appropriately based on the chosen product type and shows the specific product items as described above.

All filters located in upper right-hand corner can be applied at the same time.

3.2 Auction Lifecycle

An auction can go through several phases:

- Published
- Running
- Closed
- Finished
- Cancelled

As soon as an auction is "Published", it is visible for Bidders. During the **Published** phase the Bidder can view the available information for the auction: Name, Product, Number of Lots, Energy per Lot, Opening and Closing Time. In the detail of the auction there are other auction related attributes.

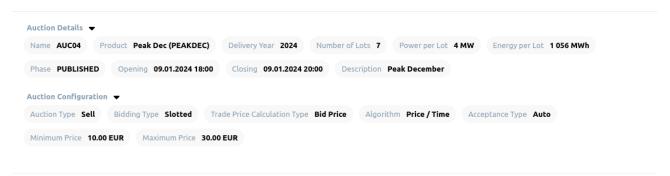


Figure 4: Published Auction

The start of the Running phase denotes also the start of the auction (also known as the "Call Phase"). During the "Call Phase", the users can submit, modify or cancel bids. All bids that were submitted for an own member, regardless by which user, are visible for the Bidder and can be modified or cancelled.

Apart from the standard auction attributes, the Bidder can also see the Maximum Accepted Price of the running auction. However, this attribute is only available in the auctions which have been enabled by the Market Operator. In case there are alltogether less placed bids than the number of lots then the value itself is not available. The Maximum Accepted Price is displayed within the Auction Result. If it is not available, then Auction Result is not displayed at all.

When the auction is in "Running" or "Closed" phase, the Bidder is able to watch these values displayed within Auction Result panel:

- Maximum Accepted Price shows actual maximum accepted price of the auction. It is available only for Sell auctions.
- Minimum Accepted Price shows actual minimum accepted price of the auction. It is available only for Buy auctions.

However, the attribute is only available in the auctions for which it has been enabled by the Market Operator and only for auctions with Trade Price Calculation Type set up to Bid Price. In case there are alltogether less placed bids than the number of lots or the auctioned quantity is not reached then the value itself is not available too. If the value is not available then the Auction Result panel is not displayed at all.

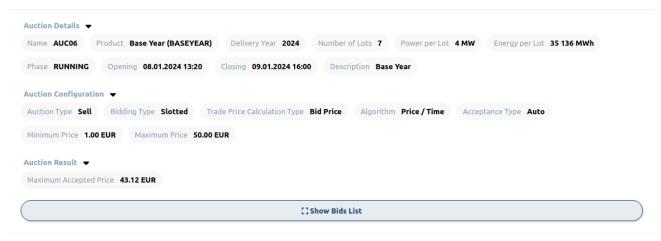


Figure 5: Running Auction

When the specified time of the auction is over the auction goes to phase **Closed** and thus the "Freeze Phase" starts. During this time the bidder can view the bids for the own Member but cannot modify or cancel them. During the "Freeze Phase" Market Operator can decide whether the auction should be reopened, accepted or cancelled. If an auction is reopened it goes back to phase "Running", if it is accepted it goes to phase **Finished** and if it is cancelled to phase **Cancelled**. However, auctions can be also automatically accepted. In this case the "Closed" phase is completely missing and auction goes directly to phase "Finished".

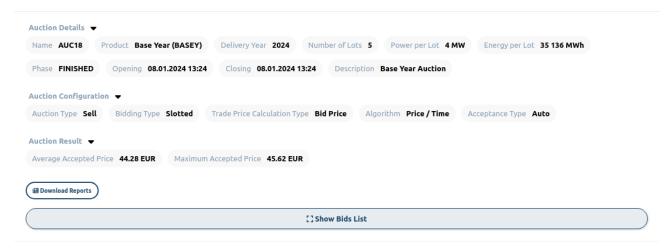


Figure 6: Finished Auction

When the auction is in "Finished" phase, the Bidder is able to see these values displayed within Auction Result panel:

- Total Bids Quantities shows final sum of all placed bid quantities. It is available only for auctions with Open Bidding Type.
- Final Price shows the final auction price. It is available only for auctions with Trade Price Calculation Type set up to Auction Price.
- Total Value of Accepted Bids shows the total value of all accepted bids. It is available only for auctions with Open Bidding Type.
- Maximum Accepted Price shows final maximum accepted price of the auction. It is available only for Sell auctions with Trade Price Calculation Type
 set up to Bid Price and only if the Market Operator enabled the Bidder to see it.
- Minimum Accepted Price shows final minimum accepted price of the auction. It is available only for Buy auctions with Trade Price Calculation Type set up to Bid Price and only if the Market Operator enabled the Bidder to see it.

• Average Accepted Price - shows the average price of all accepted bids in the auction. It is available only for auctions with Trade Price Calculation Type set up to Bid Price and only if the Market Operator enabled the Bidder to see it.

Similarly as for Running and Closed auction, if there is no value to be displayed for Finished auction then the Auction Result panel is not visible at all.

If the auction is cancelled no bids are executed.

4 Bids

The Bids List screen allows the Bidders to view, submit, modify and cancel bids. It is displayed after pressing the button "Show Bids List" available in the bottom of the auction detail. The Bids List is available for auctions in any phase except Published.

The screen also shows the Auction Configuration, Auction Result and Bid Overview panel. The Auction Configuration and Auction Result values displayed here are identical to the values displayed within the auction detail.

The Bidder can view all bids submitted by a user which member is assigned also to him/her. However, the bids can be filtered in the table according to the member for which they were submitted. On the basis of the selected Member, the values within the Bid Overview are calculated. The values are calculated only based on the bids in the table below. The bids can be also sorted by any available attribute in the table. In the case that all of the bids cannot fit into the window, a scroll-bar is available.

The Bid Overview panel contains following calculated items:

- Maximum Price
- Minimum Price
- Average Price
- Number Of Bids

Further, there are other items depending on the Bidding Type used for an auction. The Slotted Bidding Type auction has this item:

• Number of Free Slots - this value is available only for auction in the "Running" or "Closed" phase.

The Open Bidding Type auction has these items:

- Total Bids Quantities shows sum of all placed bid quantities.
- Allocated shows allocated quantity of the auction. It is available only for finished auctions.
- · Value of Executed Bids shows the total value of all accepted bids. It is available only for finished auctions.
- Value of Executed Bids in Currency shows the total value of all accepted bids in a foreign currency. It is available only for finished auctions and for a
 member who has the right to trade in a foreign currency. The value of the bids in the foreign currency is displayed only for auctions traded in Euros.
 The value is not available for the auctions traded in other currencies.
- Exchange Rate shows the exchange rate for 1 €. It is available only for a member who has the right to trade in a foreign currency. The exchange rate is displayed only for auctions traded in Euros. The value is not available for the auctions traded in other currencies.

The Bids List also shows the overall Bid ranking if "Show Ranking" is turned on for the auction. The Bidder is then able to see how his/her bid compares to others.

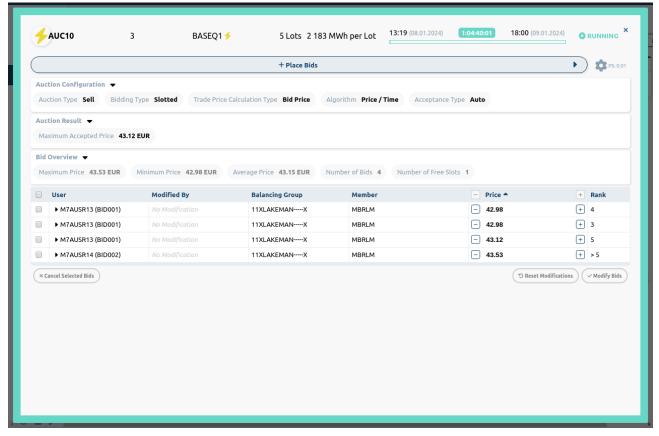


Figure 1: Figure List of Bids

Apart from calculated values displayed in Bid Overview panel, there is also an item called Automatically Cancelled Bids with a magnifier symbol. This item is present only for Open Bidding Type auctions and displays number of automatically cancelled bids. Automatically cancelled bids of the Slotted Bidding Type auctions are visible in the bids list together with manually cancelled bids. The reason is that any cancelled bid within Slotted Bidding Type auction cannot be replaced with a new one because every bid including the cancelled bid consumes one slot. Upon clicking on the magnifier symbol, the user can display the list and details of the cancelled bids.



Figure 2: Bid Overview with automatically cancelled bids

Following items are part of the detail:

- User
- Member
- Quantity
- Price
- Cancellation Reason (Auction Limit Exceeded, Cash Limit Exceeded, Member Suspended, User Suspended, Member Unassigned, Zone Unassigned, Zone Forbidden, Replaced by Upload)



Figure 3: Automatically Cancelled Bids

The other detail of the bid (Bid ID, Creation Time, Last Modified Time, and Reference) can be accessed by clicking the arrow button beside every bid.

4.1 Submitting Bids

The Bidder can only submit bids during the Running auction phase. In order to submit a new bid, the user must click on "+ Place Bids" button and enter values for the required fields:

- Member, from a drop-down menu
- User, from a drop-down menu
- Price

From the Member drop-down menu, only members assigned to the Bidder can be chosen. This menu is available only if the Bidder has assigned more than one Member

The price value can either be entered via keyboard or by using the respective "+" and "-" buttons which are situated next to the field. The buttons "+" or "-" increase, respectively decrease the price by the price step. The configuration of the price step can be achieved by clicking the cogwheel icon in the upper right-hand corner of the page. The price of a newly submitted bid cannot be less than the Minimum Price or greater than the Maximum Price if they are set up otherwise, an error message is displayed. The users can also set up their own default price and own price step which can be configured on the User's Configuration screen, see chapter User's Configuration for more details.

A bid can also be submitted only if the Cash Limit for the respective member is not violated. With every new bid, the system checks if the sum of all entered bids for the member does not breach the Cash Limit. The check is performed based on the following formula:

∑ (Bid Price * Bid Quantity) ≤ Cash Limit in case of Security product or

Bid Quantity and Bid Number of Lots is equal to 1 for Slotted Bidding Type.

If the cash limit is exceeded, an error message is displayed, and the entered bid is not accepted.

After specifying the required information, the user must press the button "Place Bid" in order to submit the bid. After the submission, the bid is entered in the Bids List and the Member and Price fields will remain pre-filled with values of newly submitted bid.

The system assigns a random globally unique Bid ID with maximum 10 digits to every submitted bid. This ID, together with Bid Creation Time and Bid Last Modified Time, is available in the detail of the bid. The detail of the bid can be accessed by clicking the arrow button beside every bid.

4.1.1 Open Bidding

In case of auction with Open Bidding Type, the user can place arbitrary number of bids but only one bid at a time. When the Open bidding is used then each bid must also define a number of units of a traded asset. The quantity is used for a security auctions and number of lots for energy auctions.

In order to submit a new bid, the user must enter values for the fields:

- Quantity
- Reference (optional, available only when submitting on behalf of a Broker)

The quantity that is submitted in the bid must be a multiple of the Smallest Quantity Unit. It must also be less than the Maximum Bid Size, otherwise, an error message will be displayed. The sum of all quantities submitted for a member per auction must not exceed the Auction Limit. This limit is the maximum total quantity that can be submitted per Member and per auction for a specific product and if it is defined it is displayed next to the Member ID in the Member drop-down menu.

The quantity value can either be entered via keyboard or by using the respective "+" and "-" buttons which are situated next to the field. The buttons "+" or "-" increase, respectively decrease the quantity by the quantity step. The configuration of the quantity step can be achieved by clicking the cogwheel icon in the upper right-hand corner of the page. The users can also set up their own default quantity and own quantity step which can be configured on the User's Configuration screen, see chapter User's Configuration for more details.

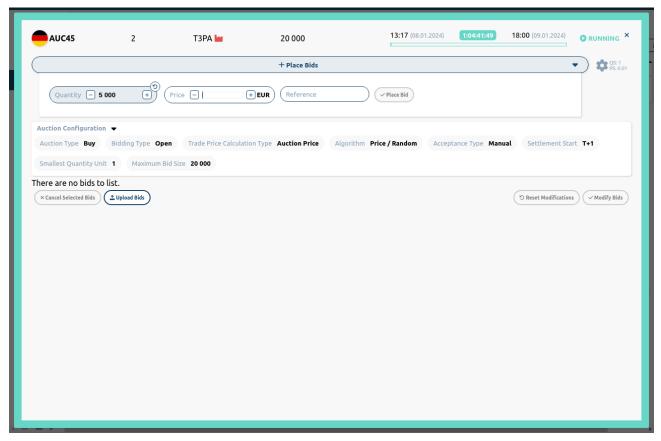


Figure 4: Submit a New Bid in an Open Auction

Instead of placing bid one by one, the user can upload bids at once from a file. This can be achieved by pressing the "Upload Bids" button located in the bottom of Bids List screen. As soon as the button is pressed, a pop-up window appears where the user needs to choose a file containing bids in the Excel or CSV format. The bid upload sample file can be downloaded from the pop-up window. For a sample file, see chapter Sample Bid File.

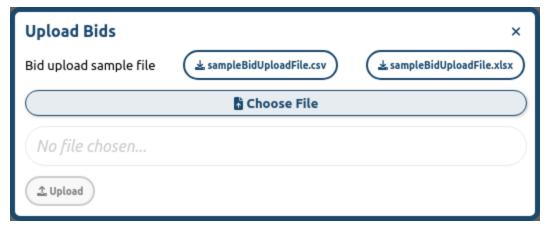


Figure 5: Popup "Bids Upload"

After the "Upload" button is pressed within the pop-up window, the chosen file is uploaded and user receives a notification with a result of bids upload.

If the file is correct and there were already bids, all of them are replaced by the bids from the file. All these replaced bids can be visible in the list of Automatically Cancelled Bids. They have the "Replaced by Upload" cancellation reason. The user is informed about replacing all existing bids when the user confirms the upload.

During the bids upload, the same validations are performed as they are done for the single bid submission. Each bid in the file is checked against the Cash Limit and Auction Limit. The price value is checked against the Minimum and Maximum Price. The Quantity is checked against Maximum Bid Size and if it is multiple of the Smallest Quantity Unit. If the Broker Reference is present the system checks that the user has broker rights. In case of wrong format or any other error contained in the uploaded file the upload will not be processed and relevant error message is displayed helping users to find the reasons of the failed upload.

4.1.2 Slotted Bidding

In case of auction with Slotted Bidding Type, the user is able to see as many price input fields as there are free slots for the auction. He/she must enter at least one price to submit the bid, however he/she can also place more than one bid at a time by entering more than one price value. The user is allowed to enter as many bids as there are free slots available for the selected member. If there is no free slot, then no bid can be placed for that member.

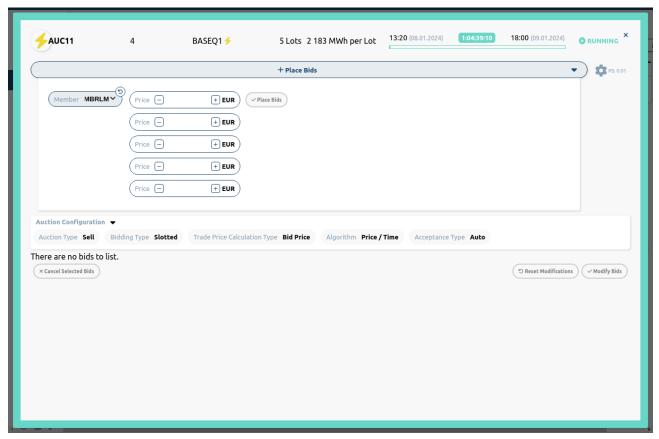


Figure 6: Submit a New Bid in a Slotted Auction

4.2 Modifying Bids

The Bidder can modify the existing bids for the own Member any time during the Running phase. In order to modify one or more bids, the user adjusts their values directly in the Bid table, either using "+" and "-" buttons, or via keyboard. The buttons "+" or "-" increase, respectively decrease the bid price by the price step. The configuration of the price step can be achieved by clicking the cogwheel icon in the upper right-hand corner of the page. The users can also set up their own price step which can be configured on the User's Configuration screen, see chapter User's Configuration for more details.

The user can also adjust price values of several bids in one direction at once. In order to do so, the user ticks the boxes in front of the respective Bids and presses the "+" or "-" buttons which are situated by the price title of the Bids table. After that, the price value will be adjusted in the desired direction by the value of configured step.

At this phase, none of the modifications are executed. The Bid adjustments are highlighted. It is only when the user presses the "Modify Bids" button and confirms the modification in a pop-up window, that all displayed adjustments are taken into account. The values lose their highlight, indicating that the modifications have been fully executed. At any time before the modifications are executed, all details of the bids can be reset to their actual values by pressing the "Reset Modifications" button.

During the bid modification, the same validations are performed as during the bid submission. With each modification, the system checks that the Cash Limit is not violated with the new quantities or prices. In such case, the user will be informed with an error message.

The check of the modified bid price is done against the Minimum and Maximum Price. If the value of the bid price is violated, an error message is displayed.

After the modifications are fully executed, the user who made the change is entered into the "Modified by" field and the Last Modified timestamp is updated. If the bid modification is done by internal DBAG Market Operator then general "Market Operator" label is used in the "Modified by" field instead of standard User ID.

4.2.1 Open Bidding

In case of auction with Open Bidding Type, the Bidder can modify also the quantity or number of lots. Just like a bid price, the quantity can be changed directly in the Bid table, either using "+" and "-" buttons, or via keyboard. A Broker user can also modify the Reference field available in the detail of the bid as long as the bid belongs to a user with broker rights.

The new value of the bid quantity must be a multiple of Smallest Quantity Unit and cannot be higher than the Maximum Bid Size. The sum of all bid quantities per auction for a member must not exceed the Auction Limit, which is displayed next to the Member ID in the "Member" drop-down menu.

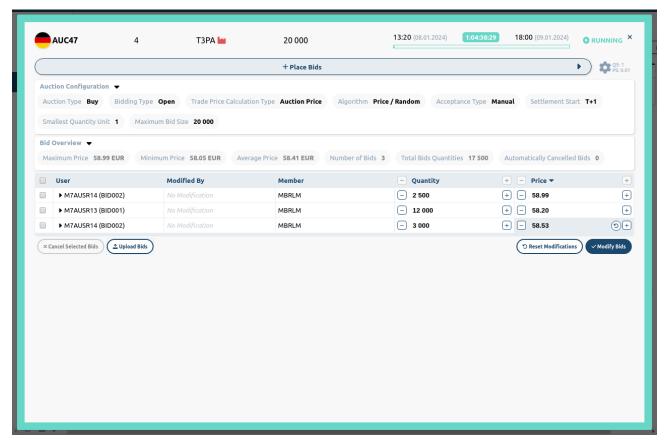


Figure 7: Modify Bid in Open Auction

4.2.2 Slotted Bidding

The Bidders can modify only the price of existing bids for their own Members at any time during the Running phase. However, if the Limit Bid Modification is turned on, the users are not able to increase bids that have already been placed in a Sell Auction and similarly, not able to decrease bids that have already been placed in a Buy Auction.

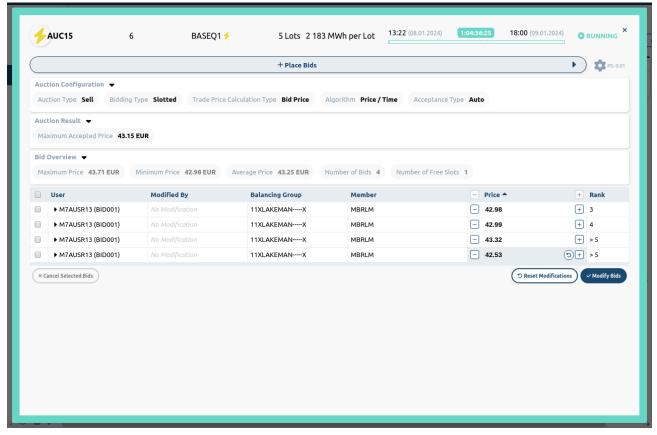


Figure 8: Modify Bid in Slotted Auction

4.3 Cancelling Bids

The Bidders can cancel the existing bids for their own Members at any time during the Running phase.

In order to cancel one or more bids, the Bidder ticks the boxes in front of the respective Bids. For convenience, the user can select and de-select all displayed bids by clicking on the title of the column with the tick boxes.

After the bid selection has been made, the user can proceed with the cancellation by pressing the button "Cancel Selected Bids". Afterwards, the user must confirm the cancellation in a pop-up window.

4.3.1 Open Bidding

In case of auction with Open Bidding Type, the cancelled bid disappears from the bid list.

4.3.2 Slotted Bidding

In case of auction with Slotted Bidding Type, the user should take into account that whenever a bid is cancelled then it cannot be replaced with a new one because every bid including the cancelled bid consumes one slot. The user is allowed to enter as many bids as there are free slots available for the selected member. The information of available free slots is stated in the Bid Overview. If the user can place bids for more then one member, the member needs to be selected first in the drop down menu on the left hand side. If there is no free slot, then no new bid can be placed for that member.

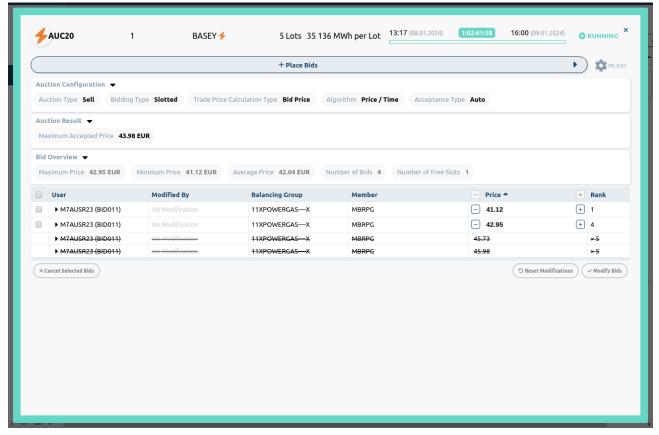


Figure 9: Cancelled Bids

4.4 Executed Bids

The Bidders are able to see bids they placed and see if they were accepted or rejected after the auction has been finished. If the Auction Algorithm is Price/Random, the bids that have been selected based on the random principle will get the Randomly Selected flag.

4.4.1 Open Bidding

In case of auction with Open Bidding Type, fully executed bids are marked green and the partially executed bid is marked yellow. The allocated quantity and the value of the bid are displayed in columns Allocated and Bid Value for all executed bids.

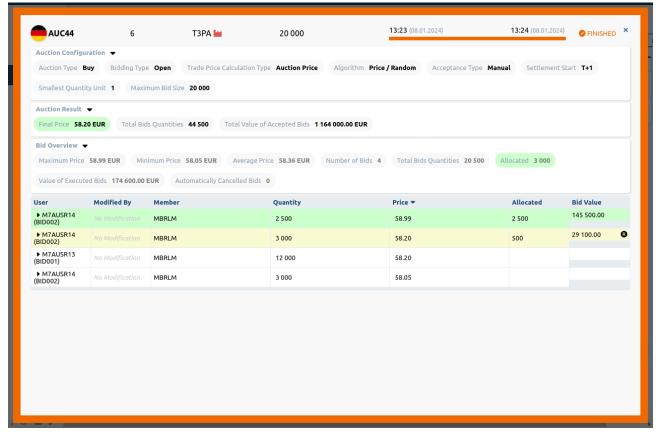


Figure 10: Accepted Bids of Open Auction

4.4.2 Slotted Bidding

In case of auction with Slotted Bidding Type, the accepted bids are marked green in the last Result column of the bids table.

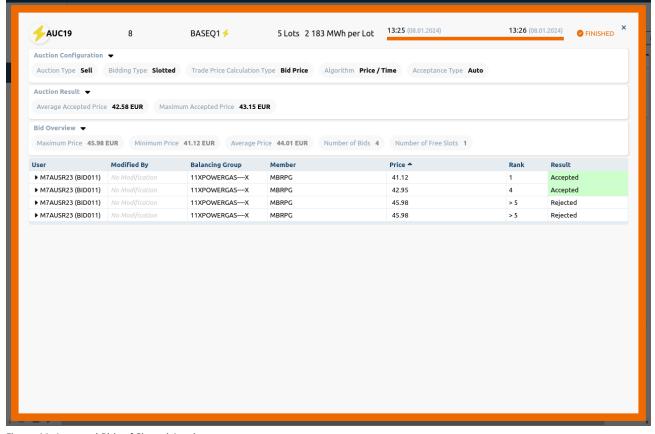


Figure 11: Accepted Bids of Slotted Auction

5 Reports

There are two different groups of reports. First, the general reports which carry overall information about auctions in a pre-defined period. These reports are available from the "Reports" menu:

• All Bids (available only if there is an energy auction)

Second, the reports with information about one particular auction. These reports are available from the details of an auction:

- Auction Result (available only for energy auctions)
- Order Report (available only for security auctions and when M7A instance has the Clearing functionality turned on)

Part of the report is also classification label (Public, Internal, Confidential, or Strictly Confidential). However, there is one report without this label (All Bids report). The label of XML report is placed as XML comment at the top of the report. And the label of CSV and PDF report is placed in the footer of the report.

5.1 General Reports

The All Bids reports are accessed from the "Reports" menu. Here, the user can select the Delivery year and format of the report. If the Bidder has assigned more than one Member, it is necessary to select also the Member for which the report is going to be generated. The reports are generated on the fly when requested and they are available in CSV and CSG format. The appendix describes the structure of the latest version of the reports and shows an example.

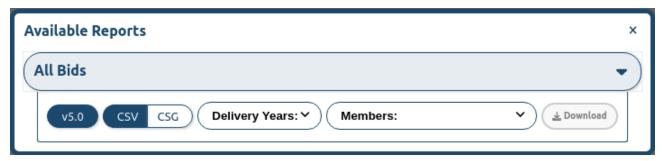


Figure 1: Report Pop-up Window

5.2 Auction Reports

In order to download auction reports, the user must first choose the auction for which the reports should be downloaded and then press the button "Download Reports" located in the bottom left hand corner of the Auction details:

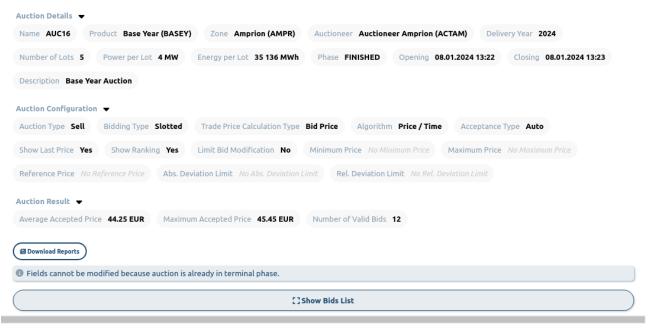


Figure 2: Download Reports

As soon as the button is pressed, a pop-up window is displayed where the user can select the type of the report to download. The user has also option to select the report version, if there are more versions available. The newest version is always pre-selected as default. The appendix describes the latest version of the reports. The reports are available in CSV, PDF or XML format.

The following table shows the formats of the reports:

Report	Format
Auction Result	PDF
Extended Trade Report	XML, CSV
Order Report	XML, CSV
Trade Report	XML, CSV

Table 2: Available formats of the auction reports

5.3 Report Types

5.3.1 All Bids Report

The All Bids Report contains information about all bids placed by the user in all finished auctions for a selected Delivery year. The bids information include not only the balancing group for which the bid was placed, the time when it was placed and the price but also the bid acceptance status and the ranking. The All Bids Report contains also the overall auction information.

5.3.2 Auction Result Report

The Auction Result is a PDF document which contains all submitted bids and the overall result of a selected auction. The header of the document shows the parameters of the auction and the results of the auction like the average price and the maximum accepted price. The bid information includes the balancing group for which the bid was placed, the time when it was placed, the price and the bid status. The report is available only for finished auctions.

5.3.3 Extended Trade Report

The Extended Trade Report contains information about all trades for a security auction. This is an obsolete report which is fully replaced by new version of the Trade Report. The Extended Trade Report is available only in version 3.0 and the content is identical with Trade Report version 4.1 or 4.0. In comparison with Trade Report version 3.0 it has extra information about original bid size and customer reference. The report can be downloaded for auctions in the

finished phase. It is available in XML and CSV format. The Extended Trade Report is accessible only when M7A instance has the Clearing functionality turned on.

5.3.4 Order Report

The Order Report contains information about all bids that were placed for a security auction by the own Members. It also includes information about the Last Modified Time, Member and User for which the bid was submitted, as well as quantity and price of the bid. The report can be downloaded for auctions in the state Running or later and includes up-to-date information for the submitted bids for the own Members. It is available in XML and CSV format. The Order Report is accessible only when M7A instance has the Clearing functionality turned on.

5.3.5 Trade Report

The Trade Report contains information about all trades for a security auction. The report can be downloaded for auctions in the Finished phase. It is available in XML and CSV format. The Trade Report is accessible only when M7A instance has the Clearing functionality turned on.

6 Appendix

6.1 All Bids Report

6.1.1 Sample All Bids Report in CSV Format

DELIVERY_YEAR;AUCTION_ID;CLOSURE_TIME;PRODUCT;NUMBER_OF_LOTS;POWER_PER_LOT;ENERGY_PER_LOT;BALANCING_GROUP_EIC;SUBMISSION_TIME;LAST_UPDATED_T IME;PRICE;RANKING;ACCEPTANCE

2020;AUC02;16.06.2020 14:00;Base Q1;3;1;2183;11XCOMPTON-----X;16.06.2020 13:43:12.189;16.06.2020 13:43:12.189;45.02;1;Accepted

2020;AUC02;16.06.2020 14:00;Base Q1;3;1;2183;11XCOMPTON-----X;16.06.2020 13:43:12.189;16.06.2020 13:43:12.189;45.02;2;Accepted

2020;AUC02;16.06.2020 14:00;Base Q1;3;1;2183;11XCOMPTON-----X;16.06.2020 13:43:27.429;16.06.2020 13:43:27.429;45.98;;Rejected

2020;AUC01;16.06.2020 14:00;Base Q1;2;2;4366;11XCOMPTON-----X;16.06.2020 13:41:12.518;16.06.2020 13:41:12.518;42.51;1;Accepted

2020;AUC01;16.06.2020 14:00;Base Q1;2;2;4366;11XCOMPTON-----X;16.06.2020 13:42:23.447;16.06.2020 13:42:23.447;45.67;;Rejected

6.1.2 Sample All Bids Report in CSG Format

DELIVERY_YEAR;AUCTION_ID;CLOSURE_TIME;PRODUCT;NUMBER_OF_LOTS;POWER_PER_LOT;ENERGY_PER_LOT;BALANCING_GROUP_EIC;SUBMISSION_TIME;LAST_UPDATED_TIME;PRICE;RANKING;ACCEPTANCE

2020;AUC02;16.06.2020 14:00;Base Q1;3;1;2183;11XCOMPTON-----X;16.06.2020 13:43:12,189;16.06.2020 13:43:12,189;45,02;1;Accepted 2020;AUC02;16.06.2020 14:00;Base Q1;3;1;2183;11XCOMPTON------X;16.06.2020 13:43:12,189;16.06.2020 13:43:12,189;45,02;2;Accepted 2020;AUC02;16.06.2020 14:00;Base Q1;3;1;2183;11XCOMPTON-------X;16.06.2020 13:43:27,429;16.06.2020 13:43:27,429;45,98;;Rejected 2020;AUC01;16.06.2020 14:00;Base Q1;2;2;4366;11XCOMPTON-------X;16.06.2020 13:41:12,518;16.06.2020 13:41:12,518;42,51;1;Accepted 2020;AUC01;16.06.2020 14:00;Base Q1;2;2;4366;11XCOMPTON-------X;16.06.2020 13:42:23,447;16.06.2020 13:42:23,447;45,67;;Rejected

6.2 Auction Result Report

Auction Results

THIS IS LOGO PLACEHOLDER

Id: AUC27

Lots: 5 **Delivery Year:** 2020

Average Price [€ / MWh]: 43.04 **Product:** Base Year

Maximum Price [€ / MWh]: 43.40 **Date:** 01.01.2020

Energy per lot [MWh]: 35 136

Total Energy [MWh]: 175 680

Bal. Group	Submitted	Last Update	Price [€ / MWh]		Status
11XLAKEMANX	01.01.2020 09:00:32.063	01.01.2020 09:00:32.063	42.90	1	Accepted
11XLAKEMANX	01.01.2020 09:00:27.211	01.01.2020 09:00:27.211	43.10	2	Accepted
11XLAKEMANX	01.01.2020 09:00:27.211	01.01.2020 09:00:27.211	43.10	3	Accepted
11XLAKEMANX	01.01.2020 09:00:35.937	01.01.2020 09:00:35.937	44.80	4	Rejected
11XLAKEMANX	01.01.2020 09:00:35.937	01.01.2020 09:00:35.937	44.80	5	Rejected

01.01.2020 09:01:02

Generated by M7 Auction Service. Confidential

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6.3 Order Report

	XML Tag	Туре	m/o	No.	Data Type	Short description
OrderRprt		SE	m	1	Structure	
auctionId		А	m		Integer	Auction ID of the Auction
created		А	m		DateTime	Time when the report was generated in UTC in the format YYYY-MM- DDThh:mm:ss[Z]
currencyUnit		А	m		Char(3)	Currency unit of the auction
Ord	derActionList	SE	m	1	Structure	
	Order	SE	m	1n	Structure	
	ordld	А	m		Integer	Order Id as returned by the Trading Service.
	actionType	A	m		Char(4)	Type of the action. Valid values are: UADD Order was added by a Trader AADD Order was added by Market Operator UDEL Order was deleted by a Trader ADEL Order was deleted by Market Operator, order was deleted because the Member was suspended NEXE Order was not executed PEXE Order was partially executed (traded) FEXE Order was fully executed (traded) UMOD Order was modified by a Trader AMOD Order was modified by Market Operator SCNL Order was cancelled because the auction was cancelled
	mbrld	А	m		Char(5)	Member Id for the submitted order
	usrCode	А	0		Char(6)	User code of the user who entered the order
	clearingAcctType	А	m		Char(1)	Specifies whether the order is entered on own account or as an agent. Valid values: P Proprietary, i.e. order is entered on own account A Agent, i.e. order is entered on customer account
	acctRef	А	0		Char(20)	The free text written by the user if the value of the field above is ���AGENT���
	qty	А	m		Integer	Quantity of the order
	рх	А	m		Long	Limit price of the order in hundredths of a currency unit
	timeStamp	А	m		DateTime	Timestamp of the action in UTC as determined by the backend in the following format: YYYY-MM- DDThh:mm:ss[Z]
	processed	А	m		Boolean	Indicates whether an order was considered in the matching process. Valid values are: If the order was processed If the order was not processed
	bidOnBehalf	A	m		Boolean	Indicates whether an order was submitted on behalf. Valid values are: 1 If the order was submitted on behalf, ie by Market Operator 0 If the order was not submitted on behalf, ie by a Bidder
	lastUsrCode	А	m		Char(6)	User code of the user who last modified the order

Table 3: Order Report

6.3.1 Sample Order Report in XML Format

6.3.2 Sample Order Report in CSV Format

```
Header;2021-02-25-10:31:03.981;;;;;;;;;
1552008063;2;AADD;2019-02-25-08:57:09.566;MBRCL;BID029;P;;200;100000;1;1;MSPV01;EUR
1552008063;2;FEXE;2019-02-25-09:00:40.448;MBRCL;BID029;P;;200;100000;1;1;MSPV01;EUR
Footer;2;Confidential;;;;;;;;;;
```

6.4 Trade Report

	XML Tag	Туре	m/o	No.	Data Type	Short description
TradeCaptureRprt		SE	m	1	Structure	
auctionl	auctionId		m		Integer	Auction ID of the Auction
currency	currencyUnit		m		Char(3)	Currency unit of the auction
created	created		m		DateTime	Time when the report was generated in UTC in the format YYYY-MM- DDThh:mm:ss[Z]
TradeLi	st	SE	o	01	Structure	
1	Trade	SE	0	0n	Structure	
	tradeld	А	m		Integer	Globally unique Trade ID of the Trade
	qty	А	m		Integer	Executed quantity
	рх	А	m		Decimal	Execution price in hundredths of a currency unit
	currencyCode	А	m		Char(3)	Settlement currency chosen by the Member
	currencyXchgRate	А	m		Decimal	Exchange Rate from Euro to the respective currency of the Member
	tradeExecTime	А	m		DateTime	Date and Time the trade was executed in UTC in the following format: YYYY-MM-DDThh:mm:ss[Z]
	settlementDate	А	m		Date	Date the trade should be settled
	buyOrdrld	А	o		Integer	Order Id of the buy side order
	buyMbrld	А	0		Char(5)	Member ID of the user who entered the buy side order
	buyUsrCode	А	0		Char(6)	User code of the user who entered the buy side order
	sellMbrld	А	0		Char(5)	Member ID of the auctioneer
	sellUsrCode	А	0		Char(6)	User code of the user who published the auction
	random	А	m		Boolean	Indicates whether the trade was done based on a random selection. Valid values are: 1 If the order was randomly selected 0 If the order wasn �� � t randomly selected
	originalBidSize	А	0		Integer	Original bid quantity
	customerRef	А	0		Char(20)	Reference

Table 4: Trade Report

6.4.1 Sample Trade Report in XML Format

6.4.2 Sample Trade Report in CSV Format

6.5 Sample Bid File

The CSV and XLS file for uploading bids needs to consist of Member ID, Price, Quantity, Broker Reference, and User for each bid. Bids with no Member ID are not processed. Price and Quantity are mandatory. The User field can be left empty. The bids are automatically uploaded with the User Code of the logged in user. To upload bid with a Broker Reference, the user must have the "Bid As Broker" user role. The Broker Reference can consist of up to 20 characters.

Member Id;Price;Quantity;Broker Reference;User MBRCT;58.45;20000;;BID009 MBRCT;58.32;10000;Broker Ref 1;BBR002

Member Id	Price	Quantity	Broker Reference	User
MBRCT	58.45	20000		BID009
MBRCT	58.32	10000	Broker Ref. 1	BBR002