User manual for the information system of

OPERÁTOR TRHU S ELEKTŘINOU

Day-ahead market

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1 INTRODUCTION

This document describes the module for the management of day-market bids through the web interface of Operátor trhu s elektřinou, a.s. (hereinafter referred to as OTE).

The document provides a detailed description of the functions for the day-ahead market, validation criteria, viewing options, etc. The general instructions on access to the web interface and its use are given in a separate document entitled *Web Interface*.

2 ACCESS TO THE APPLICATION

2.1 Access via menu

After the user accesses the system through the OTE IS web interface, the Day-ahead market menu is used for access to the application. Both the main menu and the quick access panel can be used.

2.2 Day-ahead market indicators

The upper part of the application (the information panel) displays several indicators of the Day-ahead market session. These are as follows:

- ***Session*****:** Shows the date of the next session.
- ***Close hour*****:** Shows the date and time of the closing hour of the current session.
- ***Last available results*****:** Shows the date of the session with the last available matching results.

3 SUBMITTING A BID FOR SALE AND FOR PURCHASE

3.1 Submitting a bid via screen

3.1.1 Access

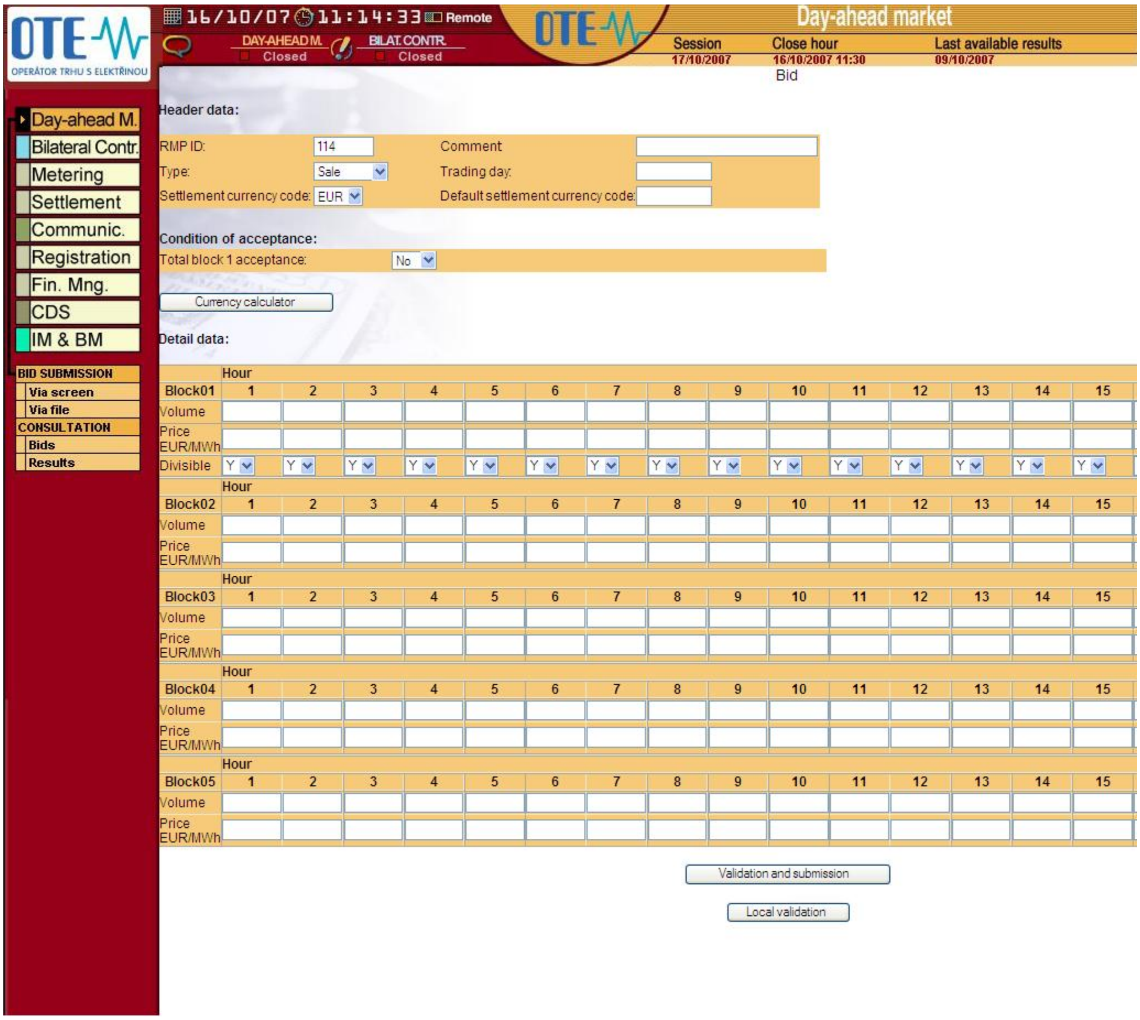
Both the main menu and the quick access panel can be used for access and this can be done by selecting the following:

Day-ahead market → Bid submission – Via screen → Submit new

3.1.2 Data in the bid submission window

Before displaying the bid submission window, the application will open a dialog box into which the user will enter the number of blocks that the user wishes to show up in the form. The application will offer the option of 5, 10 or 25 blocks.

After selecting the desired number of blocks, the application opens a window for the submission of bids onto the day-ahead market. The window has the following appearance:



The user fills in the following fields:

- ***RMP ID*** (mandatory field): Identification of market participant – the system fills this field in automatically according to the identification of the user's participant, i.e. of the user who has entered into the system. This field cannot be modified.
- ***Comment*** (optional field): A brief description of the bid.
- ***Type*** (mandatory field): The user then selects one of the values offered - *Purchase* or *Sale.*
- ***Settlement currency code*** *(mandatory field):* The user selects settlement currency at the day-ahead market (decisive for day-ahead market settlement).
- ***Trading day*** (mandatory field): The date of the trading day which we are submitting the bid for must be given for all bids. This date is entered using the DD/MM/YYYY format.

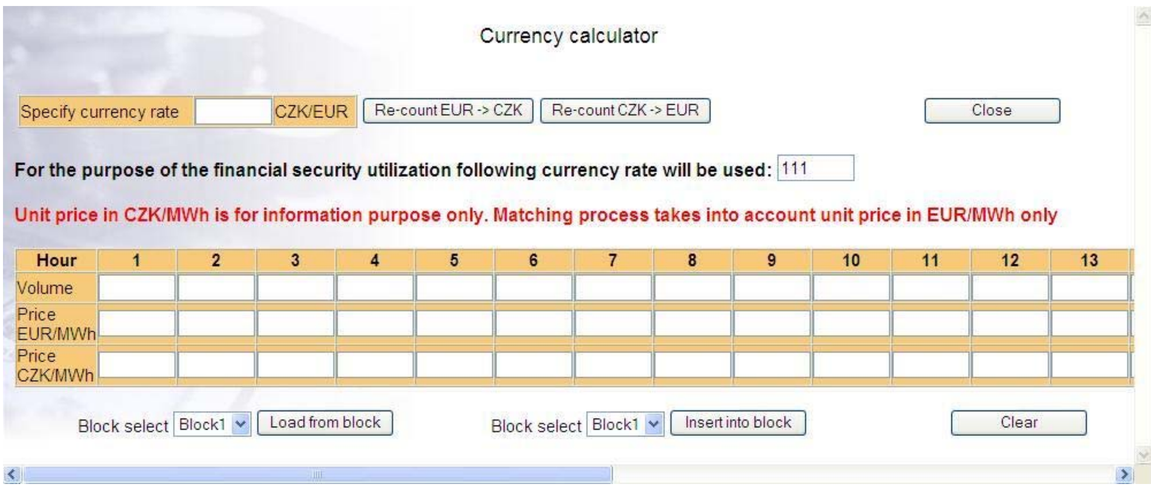
- ***Default settlement currency code*** (informative field): This field is filled in by system depending on what default settlement currency is set for the user and trading date in master data. The field is filled in automatically when the trading day is entered.
- ***Total block 1 acceptance*** (mandatory field): The user specifies whether the user wishes to apply the condition for total block 1 acceptance. This option applies only to bids for sale. In the event of bids for purchase, only the value *No* is accepted.
- ***Detail data*** (mandatory field): This shows the detail of the volume/price on offer for each of the blocks and the trading hour. Over and above the volume and price, the divisibility attribute must be entered for the first block. The field *Volume* (MWh) is made up of 5-digits with one decimal number, and a comma or full stop can be used as a separator for decimals. The *Price* field (EUR/MWh) is made up of a 6-digit whole number with 2 decimal numbers, and a comma or full stop can be used as a separator for decimals. Depending on the selection made in the previous window, the table will show either 5, 10 or 25 blocks.

3.1.3 Currency calculator

By clicking on *Currency calculator*, the system shows a new dialog window, where double-sided re-counting of a bid price in EUR to CZK (or CZK to EUR) can be executed according to selected currency rate. Result price will be arithmetical round on 2 decimal numbers after the re-count. There is shown the last actual OTE currency rate which will be used for the purpose of the financial security utilization.

This window is used for consult purposes, bids are always submitted in Euro currency, CZK currency can be used only for orientation.

Currency calculator works with full stop as a separator for decimals '.'.



The user sets prices in CZK or EUR and enters his own currency rate into the field Specify currency rate. By clicking on *Re-count EUR -> CZK / Re-count CZK -> EUR*, the block values will be re-counted by entered currency rate. There will be cleared all fields in the block of the currency calculator by clicking on *Clear*.

By selecting of the block and clicking on *Load from block*, the data will be loaded into the fields Volume and Price EUR/MWh of the selected block.

By selecting of the block and clicking on *Insert into block*, the data will be inserted into the fields Volume and Price EUR/MWh of the selected block.

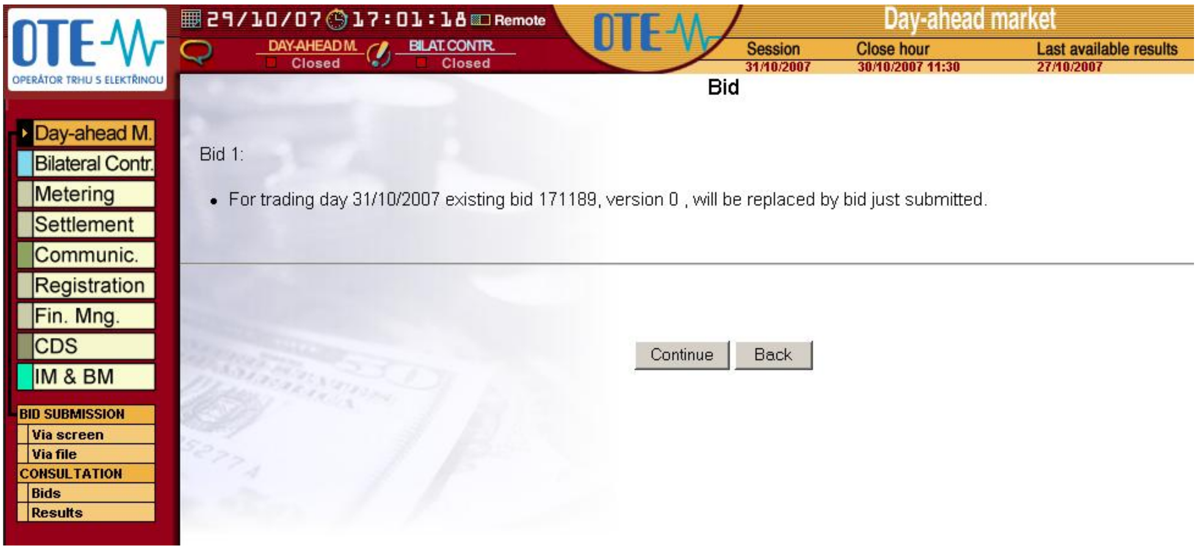
By clicking on *Close*, the application will close the window.

3.1.4 Validation and submission of data

By clicking on *Local validation*, the application will check the formal correctness of all filled-in mandatory fields as well as the correctness of the stated values. The application will show the number of errors found and will offer the user a brief description of each in order to facilitate their identification. If there is an error in the volume/price detail, it will show the block and hour in which the error was detected.

By clicking on *Validation and submission*, the application checks, in the same way, whether all mandatory fields have been filled in and whether they contain the correct values. If the application does not detect an error, the bid will be submitted. If the application detects an error, it will provide a brief description of the error.

When submitting new bids, the identification and version of the bid will be displayed (if there is one for the same trading day), which would be replaced by the newly bid submitted.



<u>Validation:</u>

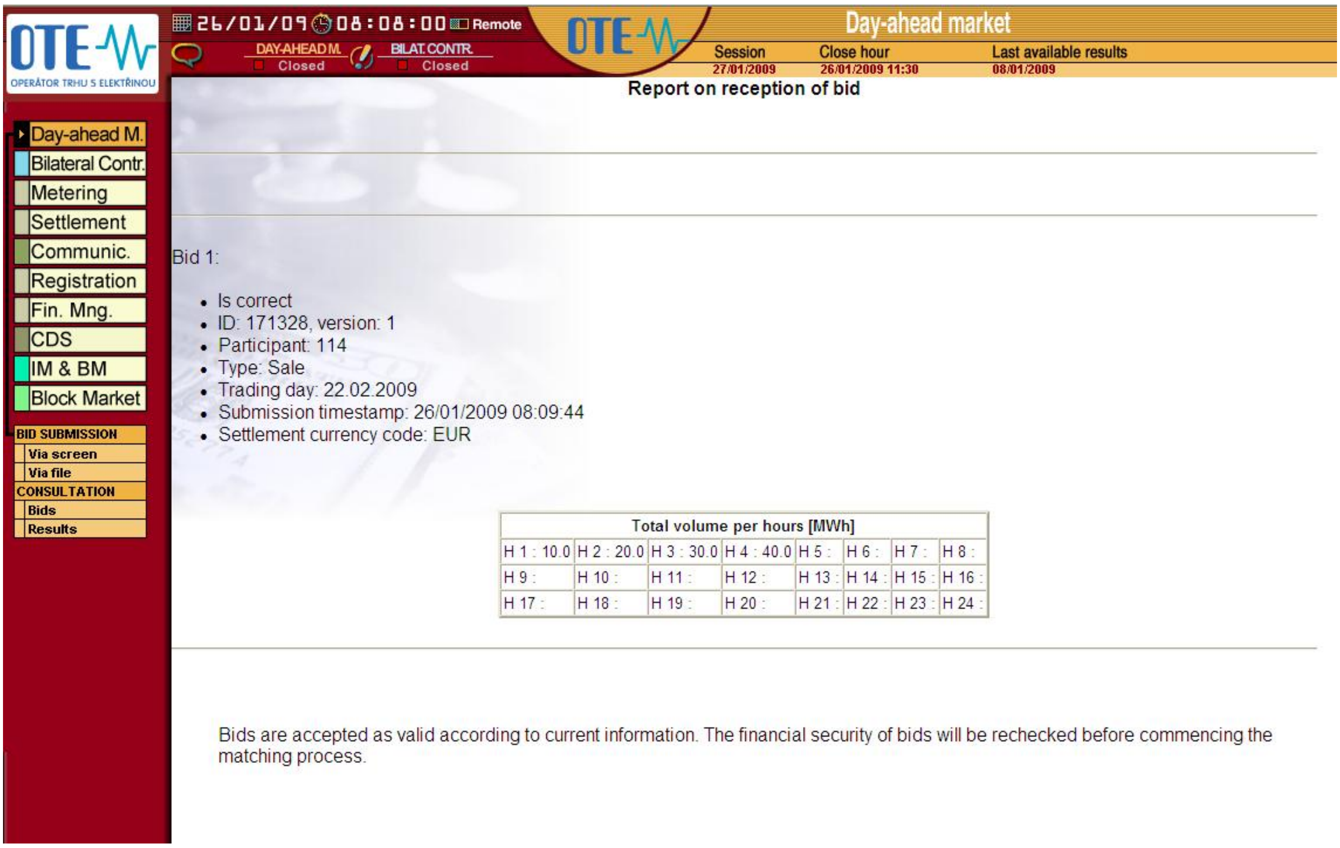
- The filled in mandatory fields are checked.
- In the event of bids, the *Trading day* field must be filled in.
- Only settlement currency, that is valid for this user (in master data) is accepted.

- For purchase bids, the attribute *Total block 1 acceptance* will be set at *No* and the divisibility attribute for block 1 in the detail will be set at *Y* (Yes).
- For volumes given in each block / hour, a price must always be entered, and visa versa.
- The volume and price for at least one block / hour must be specified.
- The correct format must be used in the *Volume* and *Price* fields. The minimum volume is 1 MWh, and the maximum volume is 99 999 MWh. The minimum price is 0,01 EUR, and the maximum price is 4 000 EUR.
- In bids for sale, the prices in each trading hour must be in ascending order in relation to the increasing number of the block. In bids for purchase, the price must be in descending order, to the same effect.
- If more hours will be stated in the bid detail than is permitted for the trading day which the bid is submitted for (i.e. 25 hours for days with 24 hours, or 24 hours for days with 23 hours), then the system will store only the applicable hours of this day and no information message will be sent to the user.
- The *Trading day* for all bids must be higher or equal to the date of the open day-ahead market session.
- The user rights are verified. The user must be authorised to update and submit bids on the day-ahead market.
- The financial security amount for bids is checked.

Digital signature:

After clicking on *Continue*, selecting the certificate and entering the PIN, the application will display a summary of information on the submitted bid. By clicking on *OK*, this data is confirmed and by clicking on *Cancel*, the bid will not be submitted.

After confirmation of the operation, the user will receive a response with the operation results, as well as a summary of the submitted bid. If the result is positive, the response will include the most important bid data (identification, version, type, etc.).



<u>Mail sending:</u>

If the bid is comfirmed as a *Correct*, the email is sent to the user with information about the bid submition. If the user has set the option 'publishing non-exchange data for PXE' in master data, the email is sent PXE (Prague Energy Exhcange) as well.

3.2 Submission of bid via file

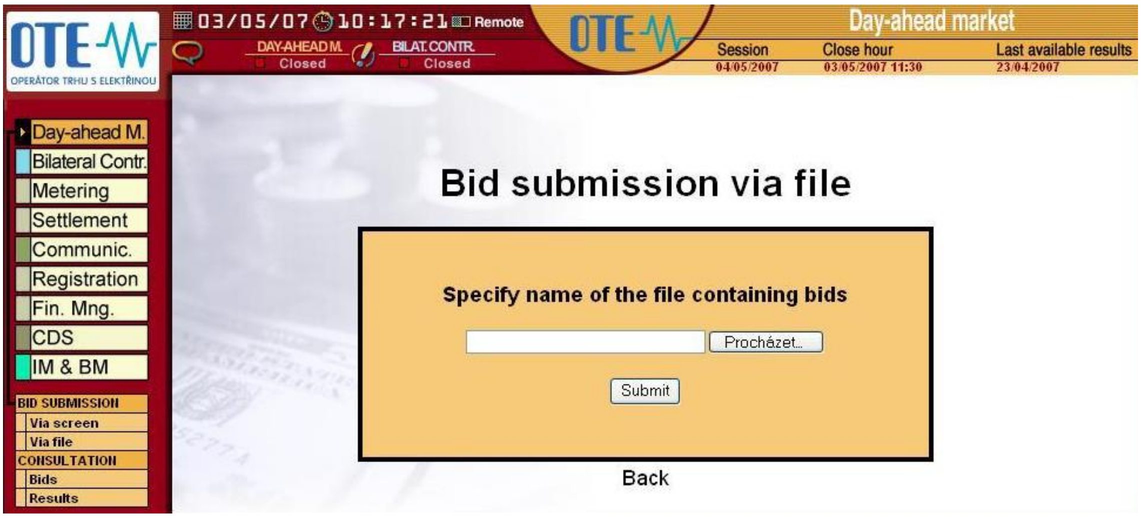
3.2.1 Access

Both the main menu and the quick access panel can be used for access and this can be done by selecting the following options:

Day-ahead market → Bid submission – Via file

3.2.2 File format and validation

The application opens a dialog box in which the user can enter the file with the bid specifications. The box appears as follows (the name of the button used for browsing through the computer depends on the language setting of the operation system):



The user must select the file containing the bid specifications and must submit this file.

Attention!!! The file containing the bid specifications must be stored in the directory C:/Ote, otherwise error will occur during bid submission.

The file must have a *NAB* suffix and must have the set format. The bid header *@NP@n* must be given at the beginning of the file (where *n* is the sequence number for identification of bids in the file). The following *@EOF@* must be given at the end of the file. When specifying several bids, the individual bids must be separated by bid headers *@NP@n*. Each specified bid will comprise a header and detail.

The bid header structure will be made up of the following fields in the specified order and will be separated by a semicolon:

- ***RMP ID*** (mandatory field): Identification of market participant - the bid owner.
- ***Type*** (mandatory field): An attribute indicating whether it is a bid to purchase (*N*) or a bid to sell (*P*).
- ***Default bid*** (mandatory field): Default bid is not available now, but this field is mandatory (*N* – non-default).
- ***Trading day - year*** (mandatory field): The year of the trading day which we are submitting the bid for must be given in all bids.
- ***Trading day - month*** (mandatory field): The month of the trading day which we are submitting the bid for must be given in all bids.
- ***Trading day - day*** (mandatory field): The day of the trading day which we are submitting the bid for must be given in all bids.
- ***Comment*** (optional field): Brief description of the bid. The field has a maximum of 30 characters.

- ***Total block 1 acceptance*** (mandatory field): In bids for sale, the user specifies whether the user wishes to apply the condition for total block 1 acceptance (*A* - yes, *N* - no). In bids for purchase, this attribute will always be set on *N*.
- ***Settlement currency code*** *(mandatory field):* The currency for the bid settlement at the day-ahead market (*CZK/EUR*). Settlement currency code EUR is only allowed for the bids from the PXE platform.

Example of header:

```
8;P;N;2002;01;01;Bid for sale;A;EUR;
```

The detail of blocks *Volume* / *Price* will be specified according to individual hours, marking the hours as *@HH@*. For each hour, all blocks relating to this hour will be specified and will be separated with the block marking *@BL@*. Both the hours and the blocks in each hour will be in ascending order. For each *Volume / Price* detail, the user must fill in the following fields in the given order. The fields will be separated with a semi-colon:

- ***Volume*** (mandatory field): This is the volume (in MWh) for a given trading hour and block. The field is made up of 5-digits with 1 decimal number, and a comma or full stop can be used as a separator for decimals.

- ***Price*** (mandatory field): Offered price (EUR/MWh). The field is made up of a 6-digit whole number with 2 decimal numbers, and comma or full stop can be used as a separator for decimal.
- ***Divisibility*** (mandatory field): The divisibility attribute will be taken into account only for block 1, but must be stated for all blocks (*A* - yes, *N* - no). For bids for purchase, this attribute can only have the value *A*.

Example of detail:

```
20.5;100;N;
```

Example of complete bid:

```
@NP@1
8;N;N;2002;01;01;Bid for purchase;N;EUR;
@HH@1
@BL@1
20.5;12.30;A;
@BL@2
30.3;11;A;
@HH@2
@BL@1
2.5;12.55;A;
@BL@2
3.5;11;A;
@EOF@
```

The validation process checks the format of the file and the correctness of bid fields. The validation criteria used are the same as for the submission of bids via screen.

After digital signature of the data, the user will be notified of the results of bids submitted, for all cases, i.e. whether an error was detected or whether submission was duly processed. If a file contains several bids, the user will receive a result for each of them.

For each bid, that is comfirmed as a *Correct*, the email is sent to the user with information about the bid submition. If the user has set the option ‘publishing non-exchange data for PXE’ in master data, the email is sent PXE (Prague Energy Exhcange) as well.

4 BID RESTORATION

4.1 Access

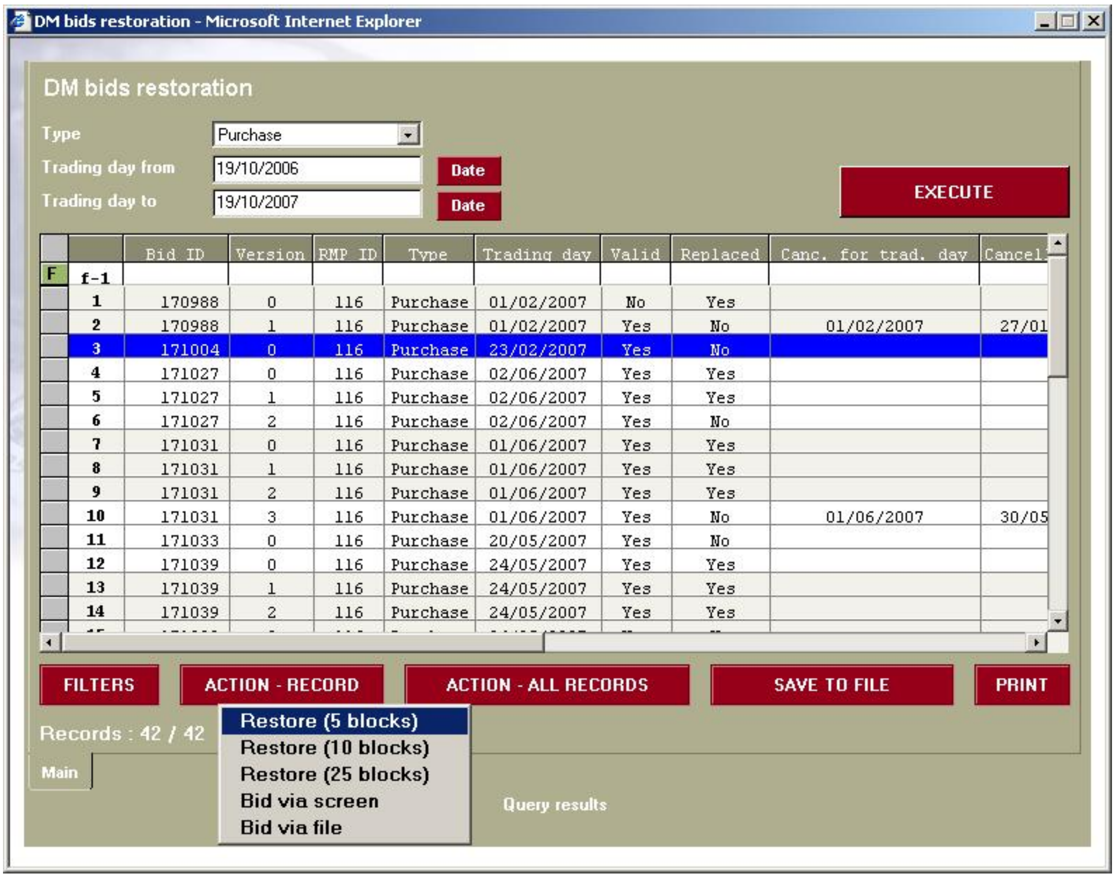
The *Restore* option allows for the re-loading of bid data already sent for the purpose of submission of new bids on the basis of previous ones.

Both the main menu and the quick access panel can be used for access and this can be done by selecting the following access options:

Day-ahead market → Bid submission – Via screen → Restore

4.2 Preliminary consultation

The user firstly conducts a preliminary consultation during which the user specifies whether a bid for sale, bid for purchase, or both, is involved, including the range of days which the restored bid must be searched in. The application will display all of the participant's valid and invalid bids, whose trading day is within the defined interval of days.



The user must select the required bid and, by clicking on the *Action – record* button, the user loads it, including the required number of blocks (5, 10 or 25). The selected bid can be displayed on the screen, or it can be saved to file. Either one or all bids obtained during the consultation can be saved to file (in the latter case, this is done using the *Action – all records* button).

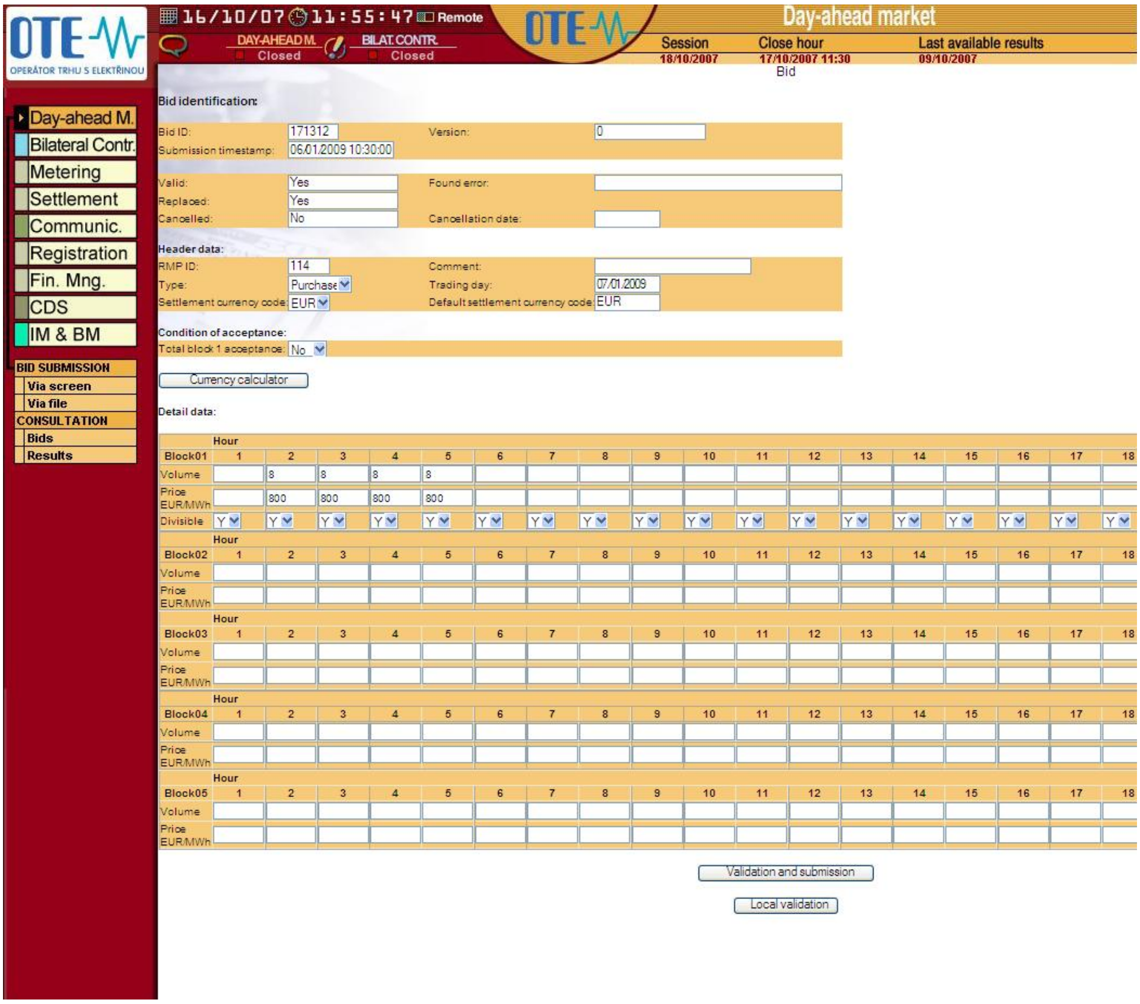
4.3 Bid restoration

When restoring a bid with a certain number of blocks, a window with the bid data will open. The user can modify the data and submit it again. This action cannot be performed if the user does not have all the necessary rights to do so. The bid data is divided into two basic blocks:

- ***Bid identification:*** This refers to the bid ID, version, submission timestamp and state of bid. This information cannot be modified.

- ***Header data, Condition of acceptance, Detail data:*** Data necessary for bid submission. This involves the same field and processing as for the submission of new bids via screen. The data can be modified by the user.

When the bid, that was entered before 1.2.2009 (in CZK currency), is displayed, there is no re-counting to the EUR currency. It means, that if this bid will be sent and not changed, it is submitted with origin value of price but in EUR currency.



Upon submission, the bid undergoes the same validation and digital signature process as for the submission of new bids via screen.

After submission, the application displays a message on the operation results and sends the mail, again in the same manner as in the submission of bids via screen.

5 BID CANCELLATION

5.1 Access

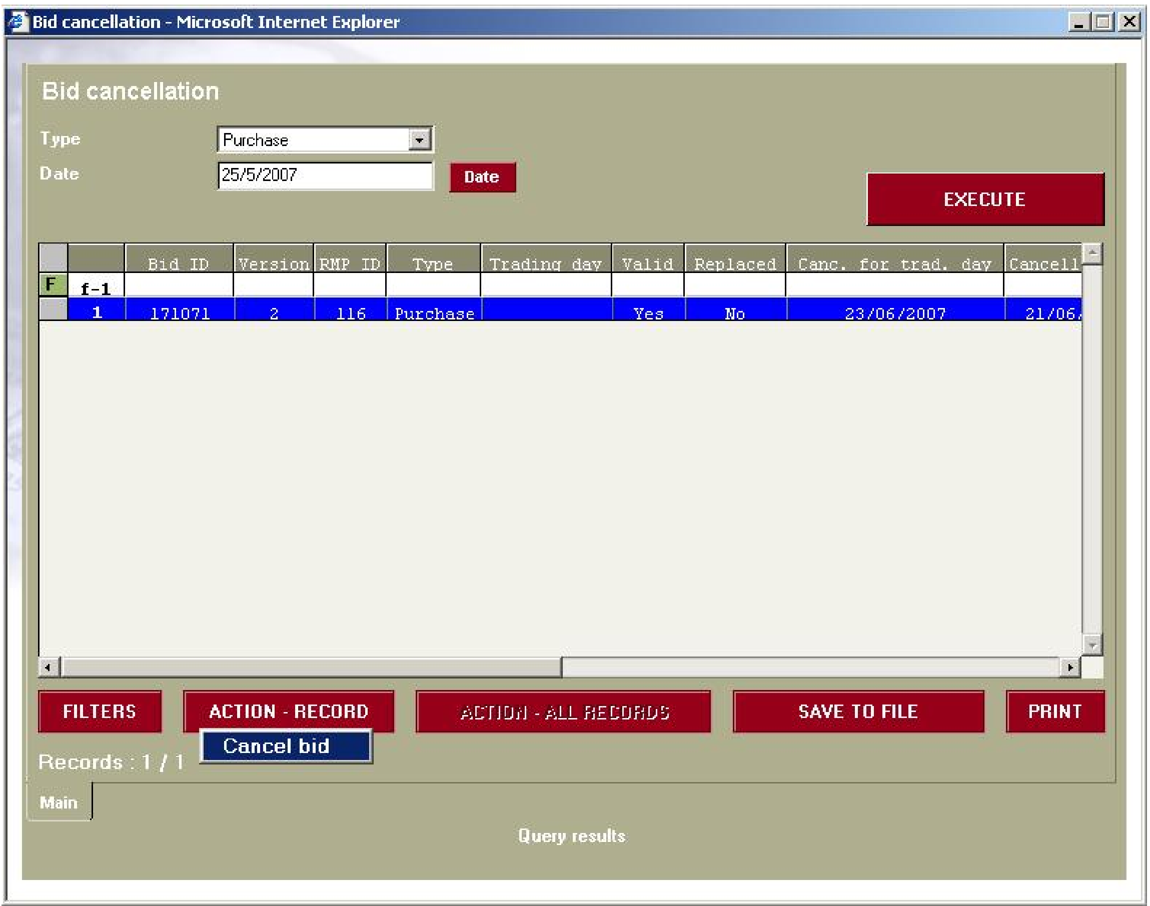
This option allows for the cancellation of a bid for a certain trading day.

Both the main menu and the quick access panel can be used for access and this can be done by selecting the following access options:

Day-ahead market → Bid submission – Via screen → Cancel

5.2 Preliminary consultation

The user firstly conducts a preliminary consultation during which the user specifies whether a bid for sale, a bid for purchase, or both, is involved, including the trading day. The application will display all of the participant's bids with the defined trading day.



5.3 Bid cancellation

The user must select one of the bids displayed and enter *Cancel bid* using the *Action – record* button. A window will open showing a header with the bid data and will display two buttons: *Consult bid detail*, enabling for the displaying of all bid data, and *Cancel bid*, which will display a window with the information about identification and version of the cancellated bid.

After clicking on the *Continue* button, selecting a certificate and entering the PIN, the cancellation of the bid will be performed, if the user has the applicable rights. After completing the bid cancellation, the application will display a message to the user with the operation results.

If the bid was canceled, the email is sent to the user with information about the bid cancelation. If the user has set the option 'publishing non-exchange data for PXE' in master data, the email is sent PXE (Prague Energy Exhcange) as well.

6 CONSULTATION - BIDS

6.1 Access

This option allows for the consultation of a list of bids on the basis of various criteria.

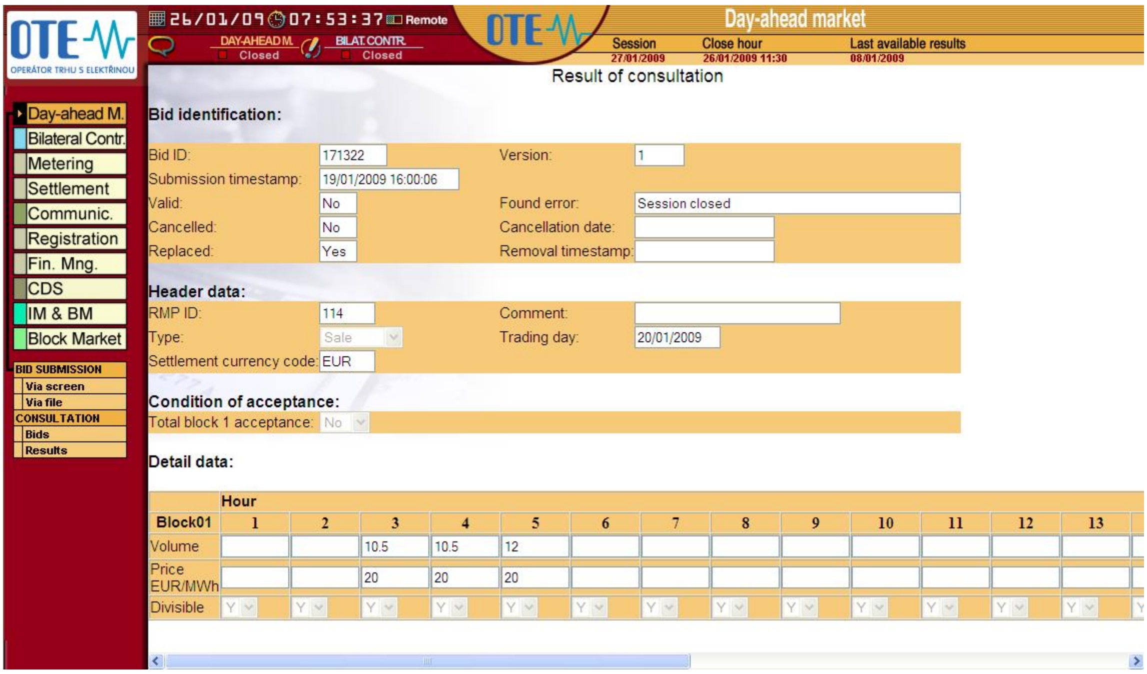
Both the main menu and the quick access panel can be used for access and this can be done by selecting the following access options:

Day-ahead market → Consultation – Bids

6.2 General functionality

Consultation is always enabled on the basis of the participant's registration. The application will make accessible to the participant only the participant's own bids. A range of criteria can be used for consultation. After the preliminary consultation, the user can select a specific bid from the list and view it on the screen or save it to file (by clicking on *Action – record*). Another function available is that it also allows for the saving of all bids obtained in the preliminary consultation into a file (by clicking on *Action – all records).*

- **Consulting bids on screen**: After clicking on *Action – record* and selecting *Bid via screen*, the application opens a window with data on the selected bid.



- **Saving bids to file**: The user can save to file either one bid using the *Action – record* button and choosing *Bid via file*, or all bids from the preliminary consultation using the *Action – all records* button and choosing *File of bids*. A default file name appears – for a single bid the following name will appear: *np_<Bid ID>_<Version>.nab* (i.e.: *np_0156427_001.nab*), and in the event of more bids, the name created will be as follows: *np_<Date in YYYYMMDD form>_<Time in HHMISS>.nab* form (i.e.: *np_20020119_162937.nab*).

6.3 Consultation types

The application offers three consultation types:

- ***Bid data:*** Based on the bid identification and its version, the application will display the bid data on screen or will save it to file.

- ***Bids by trading day:*** The application will display all bids entered for the selected range of trading days.

- ***History by market participant:*** The application will display all bids on the basis of the date of bid modification and on the selected range of trading days.

7 CONSULTATION - RESULTS

7.1 Access

This option enables the user to consult results of the bid matching process and of the final plan.

Both the main menu and the quick access panel can be used for access and this can be done by selecting the following access options:

Day-ahead market → Consultation – Results

7.2 Consultation types

The application offers 5 consultation types:

- ***Market Clearing Prices:*** The matching process prices for selected range of trading days. The application will display the resulting price in individual trading hours.
- ***Rejected and unverified bids:*** The application will display all bids rejected, for selected range of trading days, when preparing bids for entry into the matching process. Only those bids will be displayed in the consultation that were correctly submitted and saved as valid, but where a validation error occurred prior to launching the matching process (i.e. when checking financial security, which is verified both when entering a bid, as well as just before matching).
- ***Matching:*** The application will provide statistic data on all matching processes for selected range of trading days closing hour, average prices, total volumes traded and the financial volume of trade that has taken place and the currency in which was traded).
- ***Matching plan by market participant:*** This involves the result of matching that relates to the matched volume for selected range of trading days per individual hour.
- ***Final plan by market participant:*** This is an overall plan for purchase or sale by a participant (contains the results of matching day-market bids, bilateral contract aggregation and results of trading on the intra-day market) selected range of trading days per individual hour.

8 MODIFICATION OF ACCESS PRIVILEGES

According to Business terms of OTE the participant's validity period of access rights for the Day-ahead market can be changed, especially shortening of the validity period of these rights is important. In case the validity of the rights is shortened and valid bids already exist for such period, the participant will be asked to cancel these bids or the cancellation will be done directly by OTE. The bids of those participants who don't have access rights for the Day-ahead market for given trading day will be rejected from the Matching process, no matter whether the bids were cancelled before or are still valid.