LTS_NS PLATFORM PARTICIPANT MANUAL

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INTRODUCTION

This manual describes the functions of the **Local Trading and Nomination System (LTS_NS) portal**, through which the trading and physical programming activities connected to the continuous trading sessions of the intraday market performed as part of the Cross Border Intraday (XBID) and the related appointments can be carried out.

In particular, it should be noted that in the context of this document, the term "trading" means the set of the following actions:

- the collection of offers from GME participants for the *XBID continuous trading market*;
- sending of the offers of GME participants to the S*hared Order Book* (SOB) platform;
- receiving from the SOB the results related to the offers of GME Participants and to any other event relevant to them;
- producing of the relevant data for the invoicing of GME participants who have acted in the XBID *continuous trading market*.

The term physical programming (or appointment) means the set of the following activities, which allow participants to indicate:

- how much energy they intend to introduce into the electricity grid through the production or pumping units, their availability, for a specific time on a certain date, consequently to the trading activity carried out within the intraday market in continuous trading (MI-XBID);
- how much energy they intend to withdraw from the electricity grid through their consumption or pumping units, of which they have availability, for a specific time of a certain date, consequently to the trading activity carried out in the MI-XBID area.

The appointment is strictly related to the residual capacity of each unit as resulting from the outcome of the energy markets already carried out, possibly modified by the results of the different phases of the MSD and from the net position accrued by the participants on MI-XBID.

This manual provides participants with descriptions of the pages of the LTS_NS platform accessible to them and the functions they are responsible for.

TYPES OF USERS

As part of the LTS_NS platform, users, indicated by the participant in the admission phase or in subsequent modification and integration requests, access the platform if in possession of the valid credentials (digital certificates valid for authentication) registered on the systems of GME (in particular on the IPEX platform). As is known, each user authorised to operate on the energy spot markets can be associated with one or more participants of the Electricity Market. Each transaction to the system is therefore carried out by the user on behalf of an participant.

The portal manages **two types of users**:

- **User,** that has access to all the functions of the IT platform; the same may in fact, by way of example, submit offers on the MI-XBID book or physical appointments on the units assigned to the participants on behalf of which the user operates;
- **Viewer,** that has the sole possibility of viewing information relating to offers, physical programming and financial guarantees of one or more participants for which they are entitled to operate. A viewer user does not have the ability to modify programs and/or financial guarantees. They cannot therefore submit any transactions to the system.

In this manual, unless otherwise specified, reference is made to the user type *user*.

Taking into account that the LTS_NS portal is integrated with the IPEX platform, the user, enabled to operate on IPEX, is also enabled for the LTS_NS platform. In this regard, it should be noted that this user shares access and signature credentials and user rights between the two platforms, as shown below.

Similarly, an LTS_NS participant is always enabled on the IPEX platform. The user who accesses LTS_NS will have all the participants assigned to them enabled for that platform.

THE FUNCTIONS OFFERED BY THE LTS_NS PORTAL

This section illustrates, in detail, the functions offered by the portal.

It should be noted that to access the LTS_NS portal, the user must have previously registered and been enabled on the IPEX platform.

AUTHENTICATION

Authentication on the LTS_NS portal takes place using the same certificate registered on the IPEX portal.

Once authenticated, the user must keep their credentials in order to operate on the portal until the session expires or until the user explicitly closes the session.

MANAGEMENT OF THE SIGNATURE CERTIFICATE

In order to use a signature certificate, it is necessary to have a signature certificate registered on the IPEX portal.

DEPOSITING THE DIGITAL SIGNATURE

A user can deposit their digital signature after connecting to the LTS_NS.

This operation is necessary to:

- Reserve/Change the financial guarantee available for operations on the LTS_NS;
- Insert/modify/withdraw/hide offers;
- Insert/modify/revoke a program.

This functionality is not available for the viewer role.

The deposited digital signature ceases its validity 24 hours after its registration.

USER DETAILS AND LOGOUT

The section highlighted in Figure 1 with no. 1 shows the name of the authenticated user and their role (user, viewer). Immediately beside it there is a drop-down menu that allows the user to choose the language, Italian or English, with which to view the contents of the portal and to change the password. The content of the pages is translated based on the selected language. In addition to the translation of the textual parts, the change of language also involves the display of the date in Italian or English format, and the application, in display only, of the decimal separator for the digits: the comma (",") for the Italian version and a full stop (“.”) for the English version. By clicking on the icon on the right it is possible to leave the portal, thus closing the session. If the user wishes to access the portal again, they will have to authenticate again.

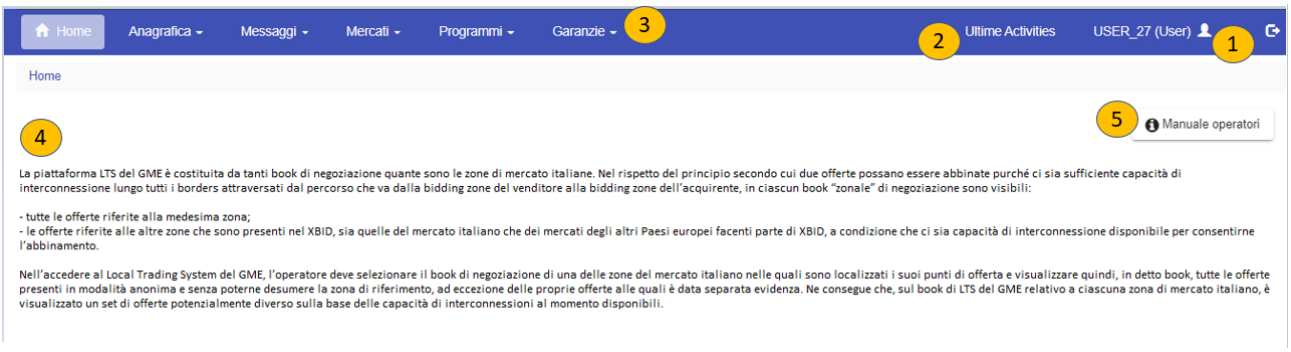


Figure 1: The main page of the LTS_NS portal

ENABLED PARTICIPANTS

By selecting the 'Latest Activities' menu (section highlighted in Figure 1 with no. 2), the user can obtain direct feedback on the last five operations carried out, such as the submission of offers.

THE MENU

In the area highlighted in Figure 1 with no. 3 the links to all pages to which the user can have access are shown.

Personal data: a section in which all the pages containing useful information for users, participants and units are grouped.

Messages: a section containing the pages for uploading xml files and the list of input and output messages relating to the participants associated with the user.

Markets: a section containing the pages for managing the signature, for submitting and monitoring offers, information on energy accounts and on the financial guarantee reserved daily for MI-XBID and for the submission of disputes.

Programs: a section from which it is possible to access the section relating to appointments (physical programming on the units).

Guarantees: a section in which it is possible to consult the complete details of the situation of guarantees in general and, in particular, relating to MI-XBID for each participant under the user's responsibility.

THE MAIN CONTENT

The section highlighted in Figure 1 with no. 4 shows the content of the individual pages.

The home page, i.e. the one shown in

Figure 1 , is the page that contains the communications to the participants. From this page it is also possible to download a pdf version of the user manual (key highlighted in Figure 1 with no. 5).

FILTERS AND REPORTS

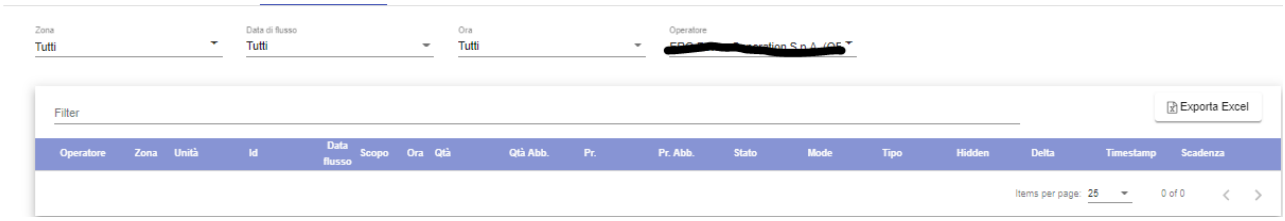


Figure 2: Filters and reports in Excel.

Each report page has a filter section shown at the top of the page (Figure 2).

In general, it is possible to apply filters to restrict the number of results provided by the underlying report. To reload the report taking into account the appropriate filters, click on the button Cerca .

Finally, it is possible to export the report in Excel format by clicking on Exporta Excel . After clicking, the page opens the report in Excel format, showing only the filtered results on the web page.

On the columns of the report displayed on the web page there are arrows to sort the records shown in ascending or descending order (alphabetical or numerical).

The features described here are common to all the pages that show a report.

MASTER DATA

On LTS_NS the following are reported:

- the registry of active participants (not suspended or excluded on IPEX), who by right can participate in the XBID.

- the registry of authorised users for the participants referred to in the previous point;

- the list of all active units on IPEX.

In addition, on a periodic basis, the margins of the units are also updated on the basis of the results of the various markets performed on IPEX and the information sent by the TSO. The availability of physical margins is a necessary condition for it to be possible to place orders on MI-XBID.

As soon as an implicit auction CRIDA is carried out, or an MSD auction has ended or an update of the feasibility intervals of the units enabled for MSD has been received from Terna, IPEX sends the updated margins for the various units involved to the LTS_NS portal. Based on the updated margins, LTS_NS updates the up and down capacities of the energy accounts. Furthermore, in case of presentation of any proxies, LTS_NS recalculates the up and down capacity of the Energy Accounts of each participant involved.

THE PARTICIPANTS PAGE

The 'Participants' page shows the list of participants authorised to operate on LTS_NS. The page is read-only and contains only the information regarding the company name, the participant code and the VAT number of each participant.

Only the free filter (Filter) is present on the page.

It is possible to export the report in Excel format by clicking on the ‘Excel Export' key.

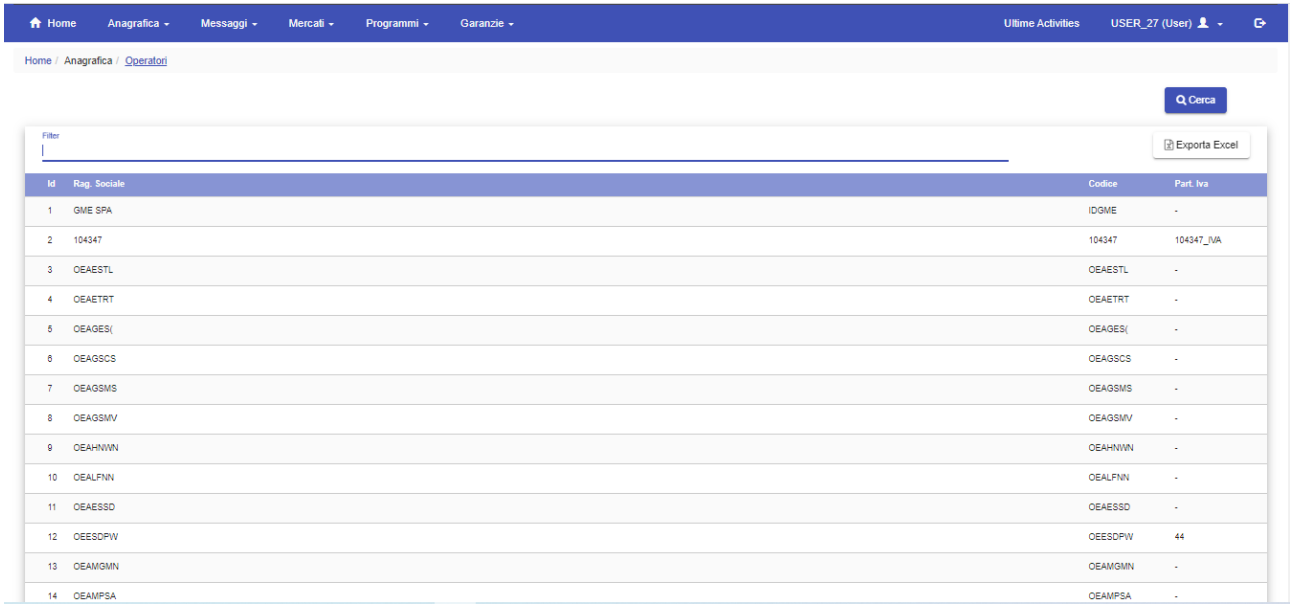


Figure 3: The list of participants authorised to use the platform.

THE USERS PAGE

The 'Users' page is another read-only page which is used to view all the users authorised to operate on behalf of the participant selected in the drop-down menu in the top right.

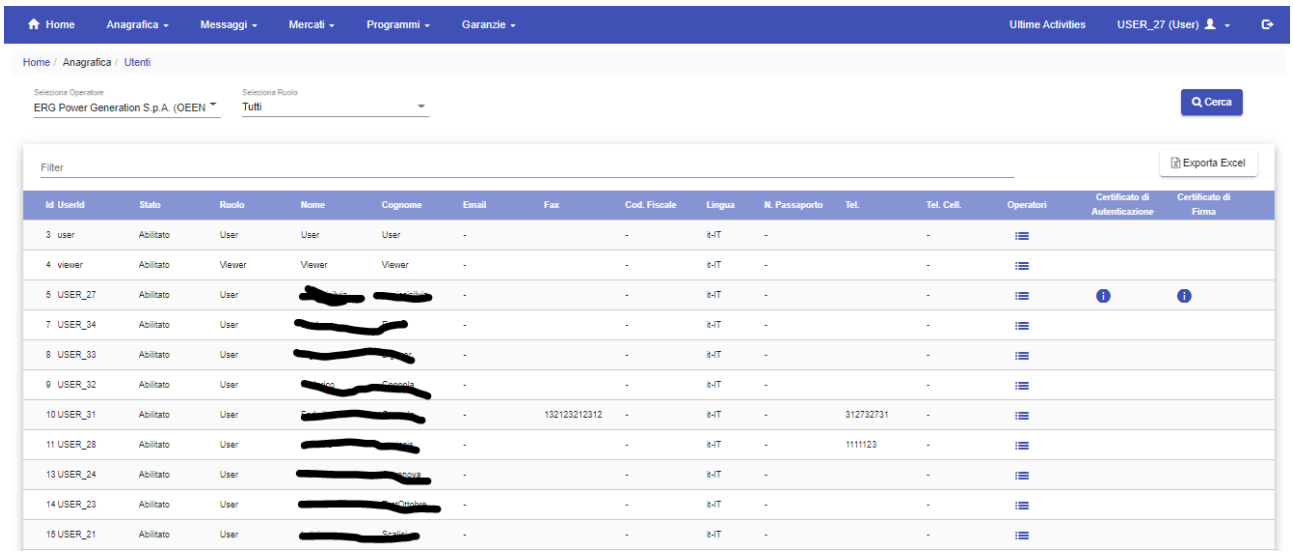


Figure 4: The users page

The information in the table respectively shows the username (UserId), the status (an indication if the user is enabled or not), the user's role, the user's first name and surname, the personal information (tax code, passport) and language settings, information on the authentication and signature certificate (by clicking on the icon , details of authentication and signature certificates are shown). By clicking

on the icon are instead shown for each user the participant(s) for which they are authorised to operate.

The free filter (Filter) is present on the page

It is possible to export the report in Excel format by clicking on the ‘Excel Export' key.

UNIT

The 'Units' page is a report showing the units assigned to the participants under the user's competence. By default, only the reference participant units are shown. However, using a radio button, it is also possible to view the units under delegation in the period included in the flow date set in the filter.

At the top, the Flow date filters, unit, type, zone, Pdsr (Relevant Trading Point) and Participant are used to limit the display of records based on the preferences set.

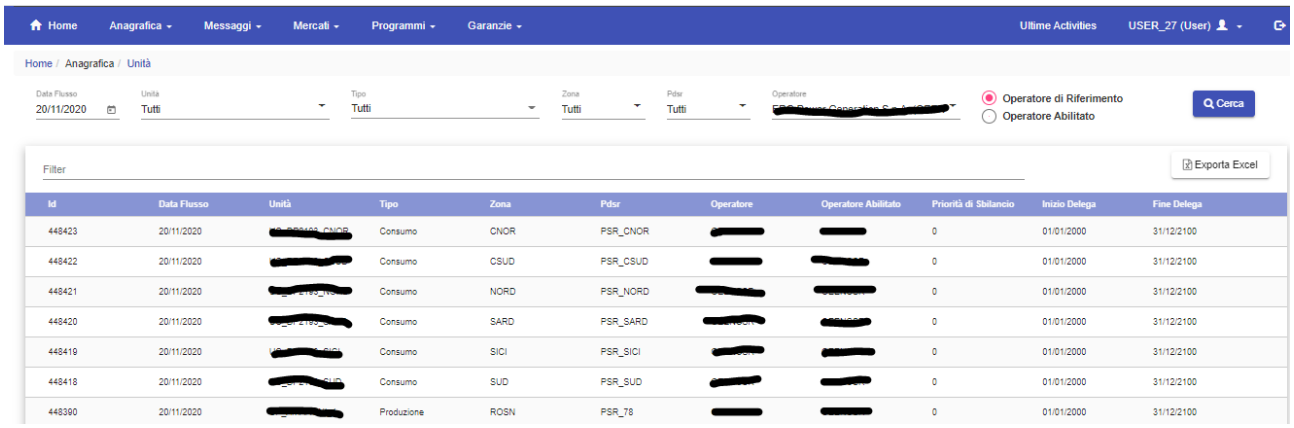


Figure 5: The Units list.

The columns displayed are respectively: the Id, the flow date, the name of the unit, the type, the zone, the Pdsr (Relevant Exchange Point), the reference participant, the authorised participant, the priority of imbalance and the start and end dates of the delegation. By selecting a unit from the list it is possible to view or download the margins in Excel format of the corresponding unit (Figure 6)

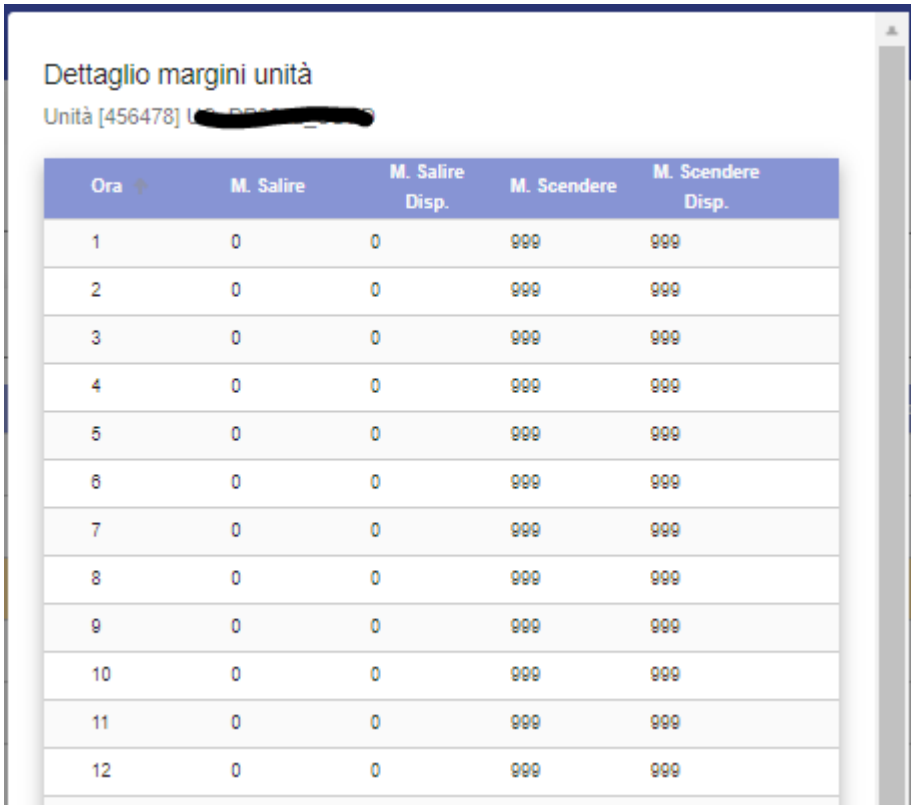


Figure 6: A detail of the unit margins.

The free filter (Filter) is present on the page

It is possible to export the report in Excel format by clicking on the 'Excel Export' key.

MESSAGES

For each action performed by the user on the LTS_NS platform, an xml input transaction is generated, which always corresponds to an xml result file (called Functional Acknowledgment, FA), also in the form of an xml file. It is always possible for the user to view the generated xml file and its relative FA.

UPLOAD DOWNLOAD

Through the 'Upload Download' page, the user can directly upload xml files to submit/edit offers and programs or to change the status of offers and programs (Figure 7).

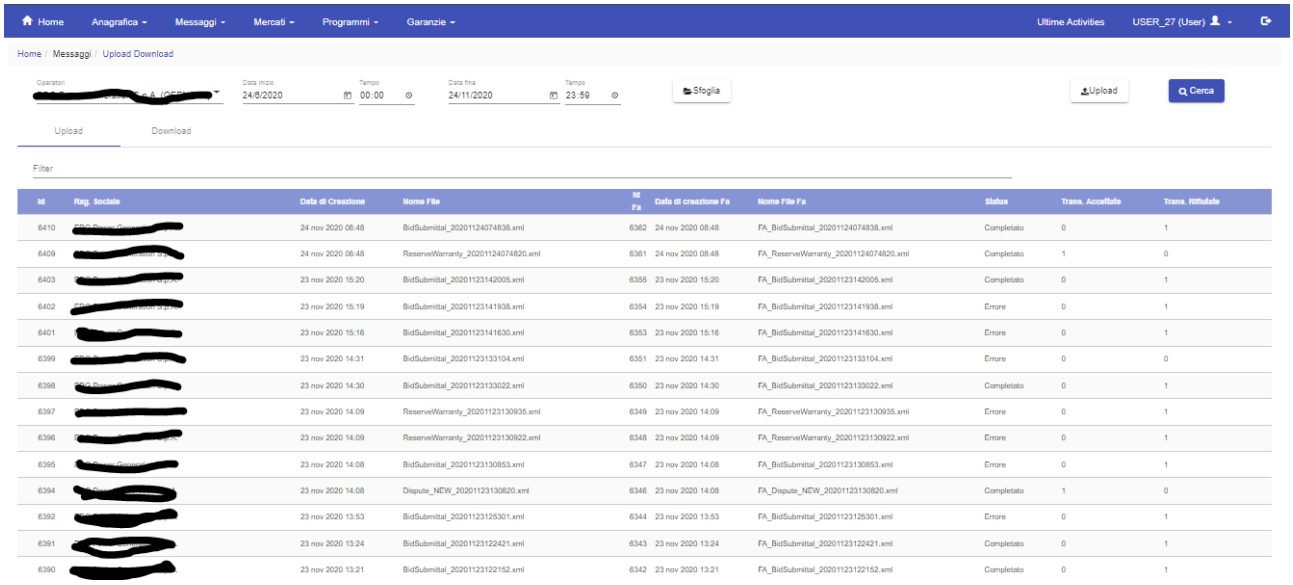


Figure 8: Upload of xml files.

The user must write the xml file with a dedicated editor, according to the formats described in the implementation Guide, and then proceed with the upload, first selecting the file using the 'Browse' button and then submitting the same using the Upload button.

Each action submitted by the user to the LTS_NS system through the web pages described above takes the form of an xml file, stored in the database and subsequently processed by the platform. Each action deposited on the system generates a result (FA), irrespective of the outcome of the action performed.

The list of submitted xml transactions and their outcome are displayed on this page (Figure 9).

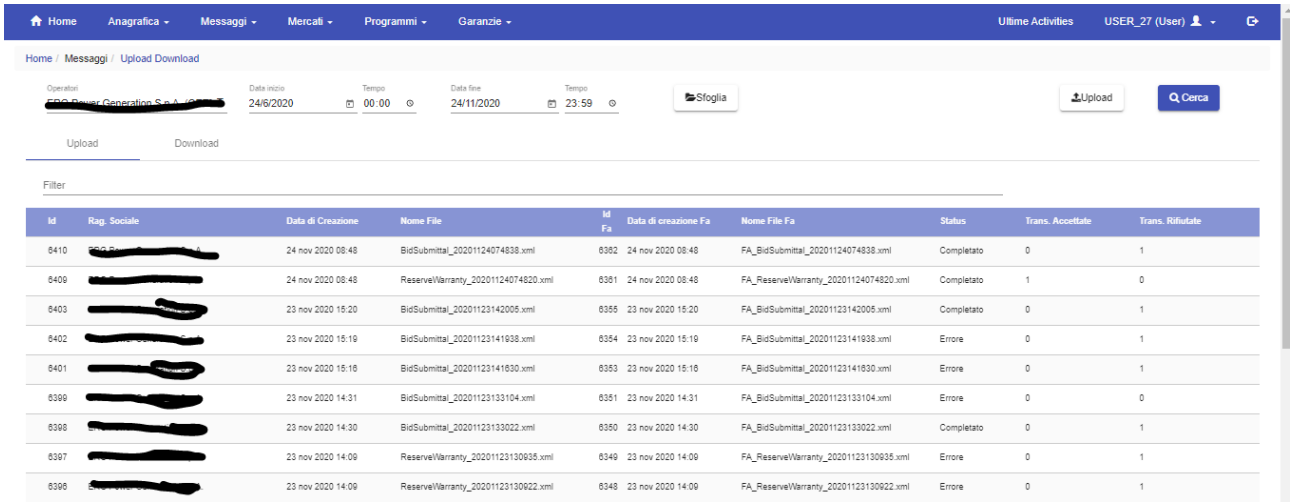


Figure 9: Upload Download

The page is organised as follows: in the Upload tab the unique id attributed to the xml input message is displayed, produced through user interaction with the portal pages, as well as the company name of the participant, the date of creation of the file, the name of the file, the ID of its related FA, the creation date and name of the FA file, the outcome of the transaction and its relative status (Accepted

or Rejected). By clicking on each line it is possible to choose whether to download the input xml file that originated the transaction, to download its FA or to open the detail where both are shown.

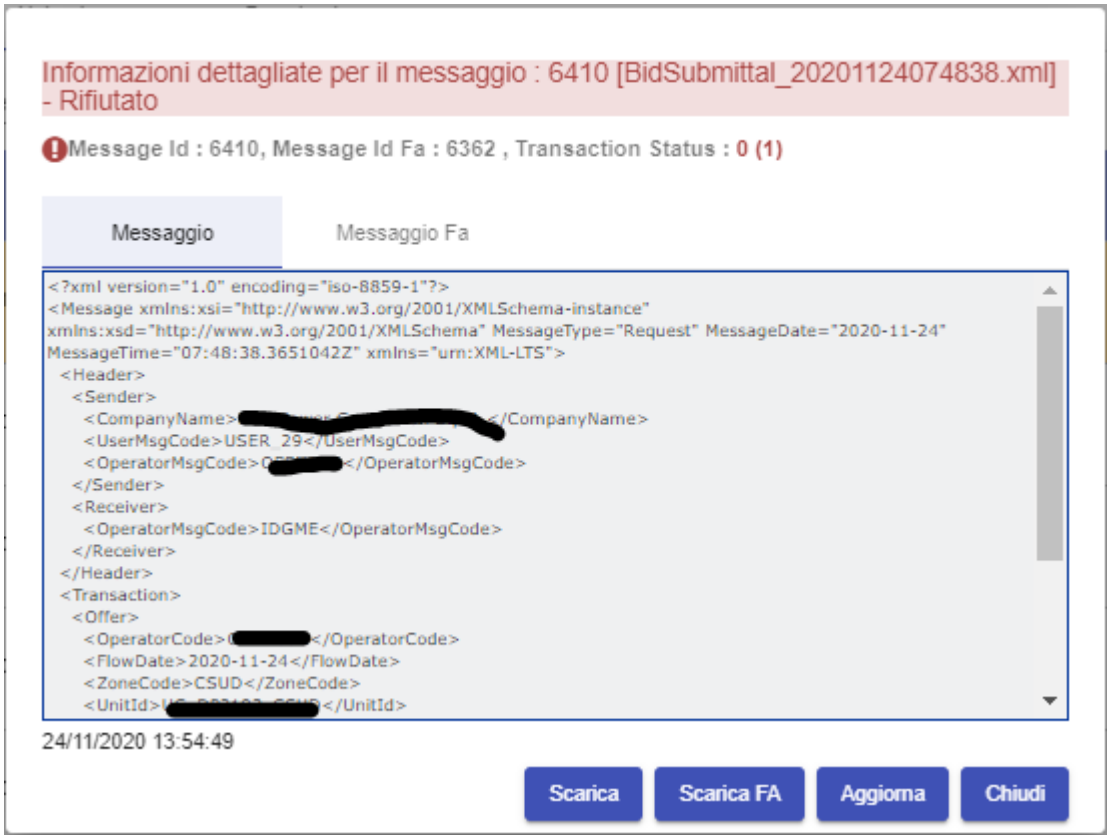


Figure 10: Detailed message information.

In 'Upload Download' it is also possible to view any files sent by the system other than FAs, which do not correspond to any input file sent by the participant. Figure 11 shows use of the Download tab.

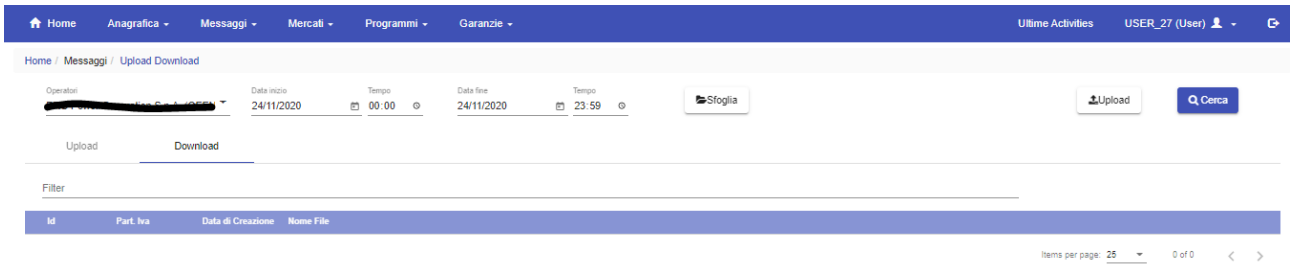


Figure 11: Download.

MARKETS

GME's LTS_NS portal allows access to continuous trading of the MI-XBID market. Bids can be submitted on as many trading books as there are Italian market areas. Furthermore, in compliance with the principle according to which two offers can be combined provided there is sufficient interconnection capacity along all borders crossed by the path that goes from the seller's bidding zone to the buyer's bidding zone, in each "zonal" trading book, the following are visible:

- all offers referring to the same area;
- offers referring to the other areas that are present in the XBID (both those of the Italian market and the markets of the other European countries that are part of XBID, provided that there is interconnection capacity available to allow matching).

When accessing GME's LTS_NS portal, the Market Participant must select the trading book of one of the areas of the Italian market in which the available offer points are located and then view, in this book, all the offers available anonymously and without being able to deduce the area of reference, with the exception of its offers which are given separate evidence. It follows that, on the GME LTS book relating to each Italian market area, a potentially different set of offers is displayed based on the interconnection capacities that are currently available.

SIGNATURE MANAGEMENT

Through the 'Signature Management' page, access is provided to the page that offers the user the possibility of managing their own signature certificate on a daily basis. If the user does not have a signature certificate registered for the current day, the page appears as in Figure 12.

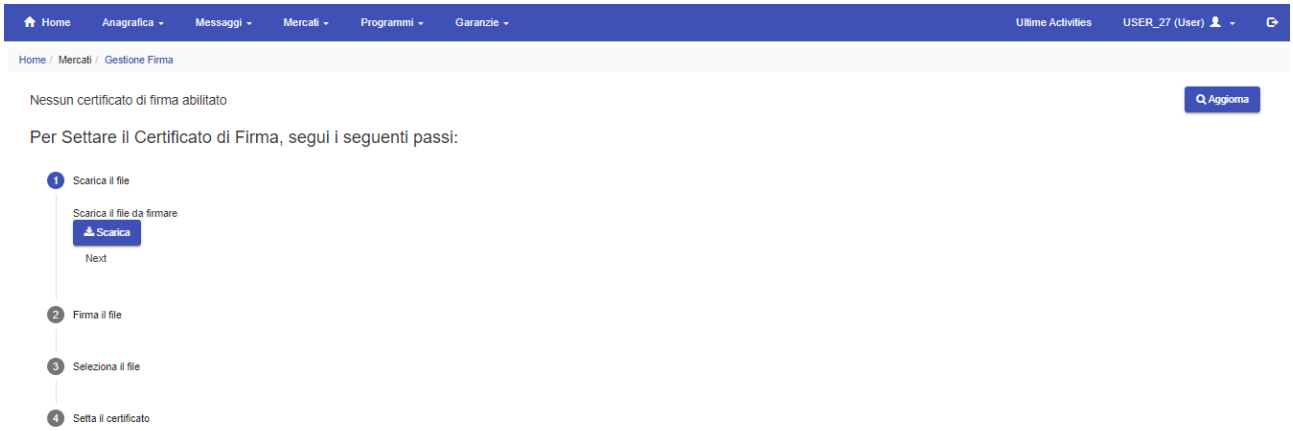


Figure 12: Signature Management.

For the user to be able to add a certificate, they must proceed through the 4 steps indicated on the page, namely:

1) download the xml file generated with the current date;
2) sign the file just downloaded using an external tool, using the signature certificate that the user has registered on IPEX;

3) select the file just signed;
4) check the setting of the daily signature certificate.

Once the certificate has been set, it will be displayed at the top of the page, indicating the expiry date and it will then be possible to revoke it using the 'Revoke the Certificate' button.

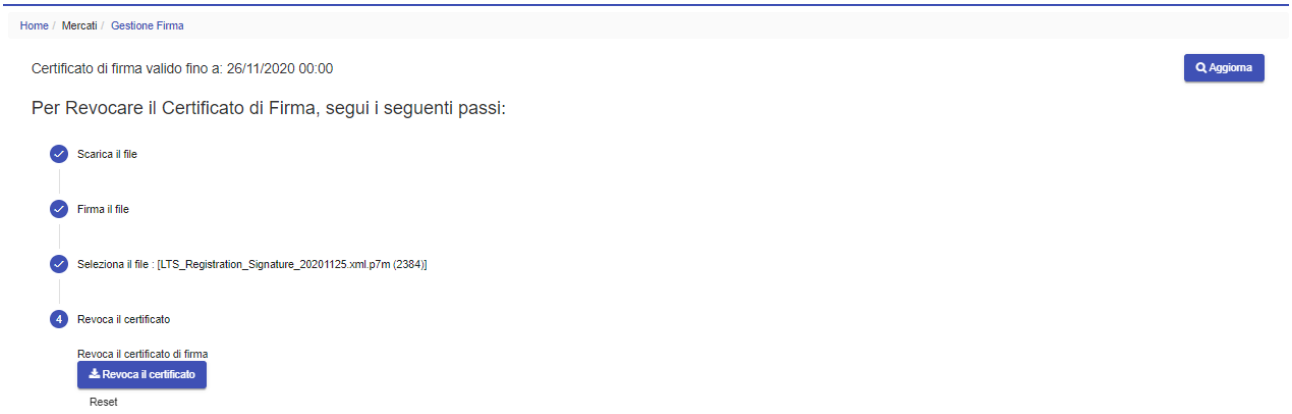


Figure 13: Registered signature certificate.

TRADING

In

Figure 14 the trading book of the products that can be traded at a given time (trading interval) on the MI-XBID is shown. One or more boxes corresponding to the product trading areas are displayed. Currently negotiable contracts are available for each zone.

As soon as one or more contracts become negotiable or exit the negotiation, an alert, lasting a few seconds, is displayed in the lower right part of the page.

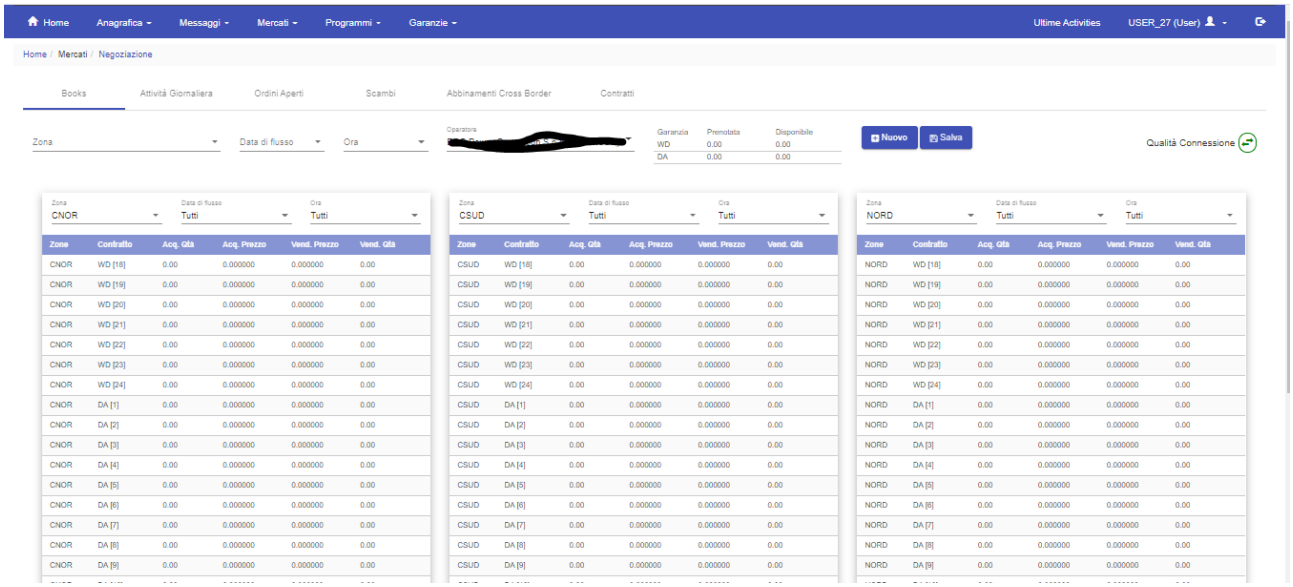


Figure 14: The trading book.

The user can configure the trading page by modifying the order or number of zones displayed and can also add new custom boxes using the button

. Furthermore, for each box it is possible to set the flow date (WD, Within-Day, i.e. products referring to the current day, or DA Day-Ahead i.e. products referring to the next day), the time relating to a negotiable product and the zones to be viewed.

The filter at the top of the page instead acts globally on all the boxes present and has priority over the filters set in the individual boxes.

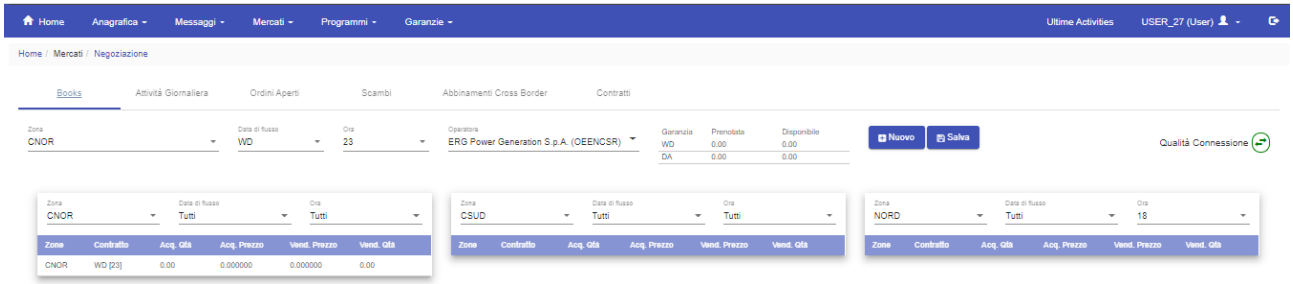
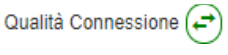


Figure 15: The trading book.

The configuration can be saved for each user via the button

and is also maintained in subsequent logins.

The indicator 

instead indicates the correct communication between the user's browser and the LTS/XBid system.

RESERVATION OF THE DAILY GUARANTEE

Before being able to operate on the book, each participant must book from the Netting (integrated system for the management of financial guarantees of the electricity and gas spot markets) the guarantees necessary to ensure adequate financial coverage for the trading operations carried out on LTS_NS (trading market continued XBID), relative to the WD and DA flow date. A participant chooses an amount of financial guarantees to book on Netting for a specific flow date by selecting the 'Guarantee' section displayed to the right of the participant filter, choosing the WD or DA flow date. It is of course possible to book financial guarantees for both flow dates

Garanzia	Prenotata	Disponibile
WD	0.00	0.00
DA	0.00	0.00

Figure 16: Financial guarantee booking summary.

The amount of the reserved guarantee can be changed at any time. Once the reservation has been made, the amount available for each of the two flow dates will always be displayed following the trading activity carried out on LTS_NS.

The reservation of a financial guarantee is only possible for the user who has deposited their digital signature.

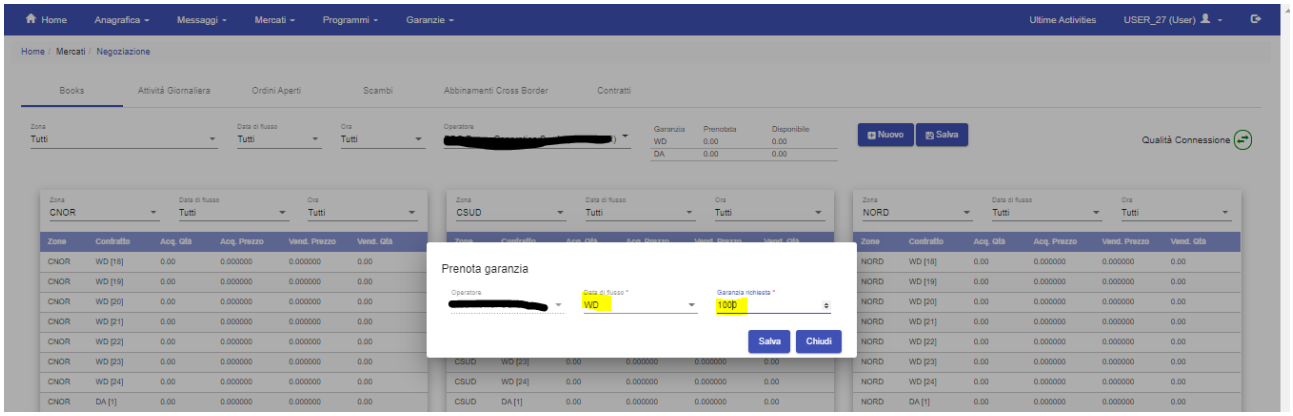


Figure 17: Reservation of a financial guarantee.

At the close of the last negotiable hour for a certain flow date, the reserved and available financial guarantee is changed automatically. In particular, as soon as the last hour of a given flow ceases to be definitively programmable, the financial guarantees booked and available for that flow date are automatically set to 0 and a notification is sent to Netting in order to consolidate the exposures and/or the receivables deriving from the trade balances accrued for the flow date in question.

SUBMITTING OFFERS

The user with **user** rights, limited to the participant of competence, may include offers by interacting with the book through the selection of a product in the purchase or sale price of the cell. This causes the opening of a box with the pre-set type of offer (the type of offer is the opposite of that of the cell clicked on, so if the user clicked on the purchase price cell, the type of the pre-set offer will be sales), containing the minimum fields necessary to submit a standard offer.

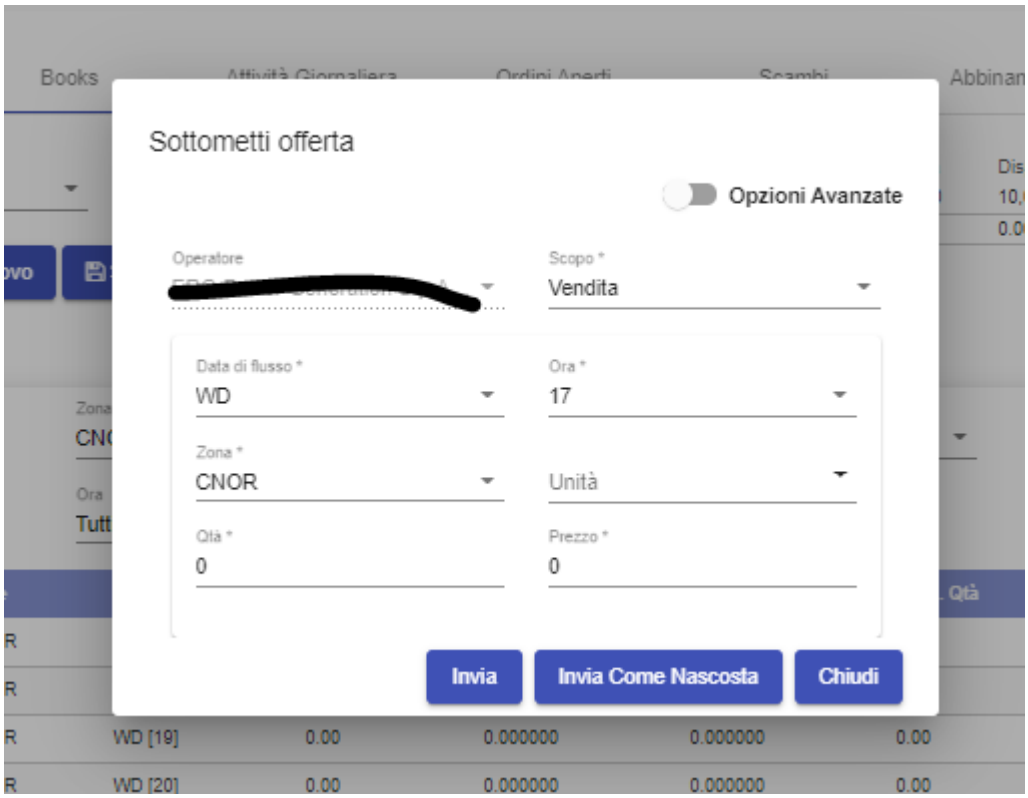


Figure 18: Standard offer submission pop-up.

The quantity submitted will be expressed in MWh. If a price already exists in the selected cell of the book (i.e. if an offer already exists on the book), the pop-up captures the price and quantity and presents them in the respective input fields. They can still modify the values before proceeding with sending.

To submit a standard offer, it is in fact necessary to specify (in addition to the participant code and delivery area set by default when the web form is opened) only quantity, price (offers without price submission are not permitted under any circumstances), sign of the offer (purchase or sale), area, relevant period and the unit (only necessary if the intention is to present a purchase/sale on national consumption units: if the field is left blank, the offer is understood to be submitted on the energy account and not on the single unit), and the type of sending that is normal (default choice) or hidden.

To access other offer presentation settings, select 'Advanced Options'.

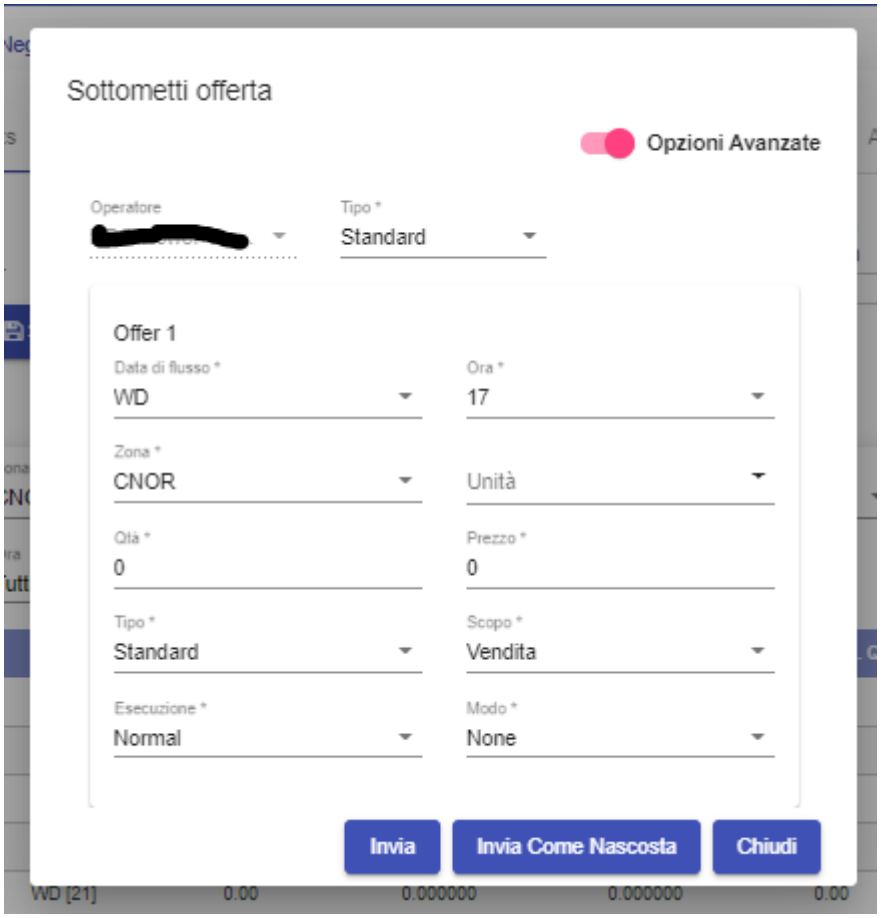


Figure 19: Pop-up for submitting an offer with advanced options.

The editable fields in the submission popup also include the one relating to the offer execution mode: 'Normal', 'Execute and Delete', 'Execute or Delete'.

With regard to 'Execute and Delete', the offer is presented on the book, matched by the combinable quantity and then removed from the book.

The 'Execute or Delete' mode provides that the offer is matched immediately; in the event that this is not possible at the time of presentation on the book, the offer is removed. The 'Mode' selection is used to indicate the market date until which the offer must be presented on the book. In 'Good for Session' mode the offer is automatically revoked at the end of the session. In 'Good'till date' mode, once the date indicated in the Expirytime has expired, the offer is automatically revoked. The ExpiryTime is an optional field: if it is not filled in by the user, by default, the end negotiability term of the contract indicated closest to the time at which the order is submitted is entered. The value must be set as a multiple of 5 minutes, e.g.: XX:05, XX:10 etc.

In the case of offers of the Basket type, groups of offers may be sent in the same transaction, each independent from the others. In the event that a basket offer is submitted via the web form, a mask with n lines opens (it is possible to add or delete them from time to time using the '+' or '-' buttons.

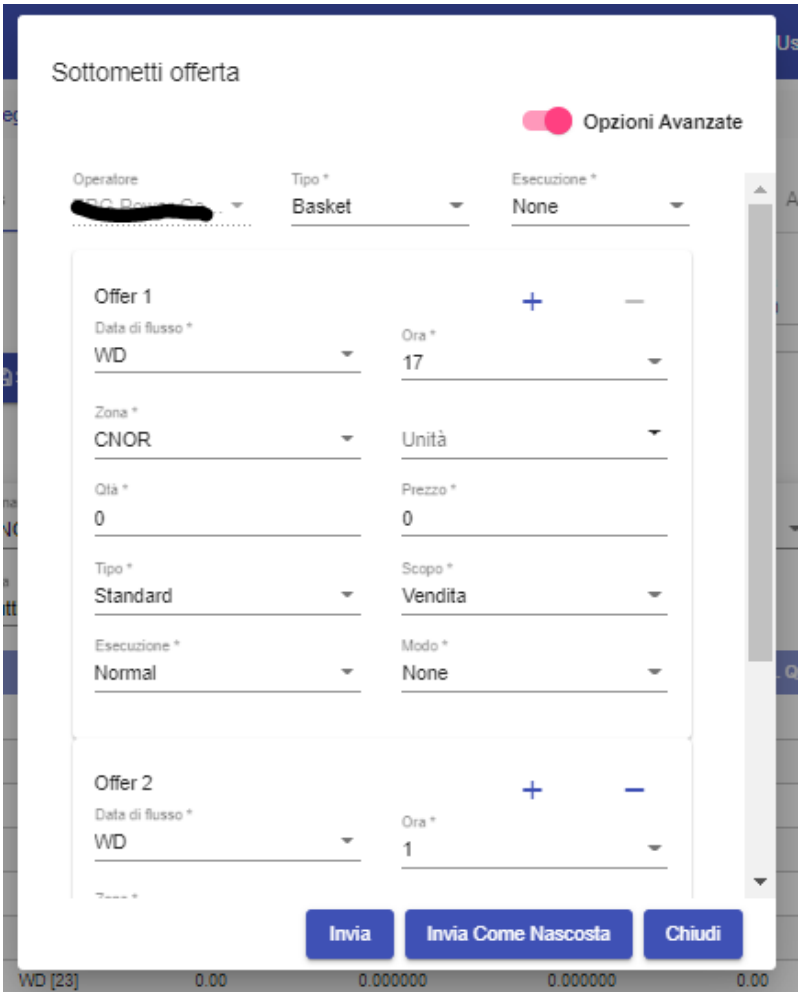


Figure 20: Basket bid submission pop-up.

For each line it is possible, through a drop-down menu, to enter: product, quantity, area, price, purpose and order restriction. It must be possible to associate an execution instruction to the entire basket:

- Normal, which is no execution instruction. Offers will be processed as if they were received separately. Any violations of the validation conditions by one or more offers have no impact on the other offers. In this case, all the offers underlying a basket with a “Normal” execution instruction.
- Valid, i.e. if even one offer is not suitable, all the offers are rejected. Once successfully submitted to the book, they remain there until deleted, matched or hidden.
- Linked, i.e. all orders in the basket must be matched immediately and not partially, otherwise no order can be executed.

The offers presented can still be of the standard type (without any particular feature), or Iceberg type (i.e. an order characterised by a total quantity, a peak quantity, a hidden quantity, an offer price, a zero or positive delta price for orders for sale, a zero or negative price delta for purchase orders). The exposed quantity (the slice, equal to total quantity - hidden quantity) must be greater than or equal to 5.

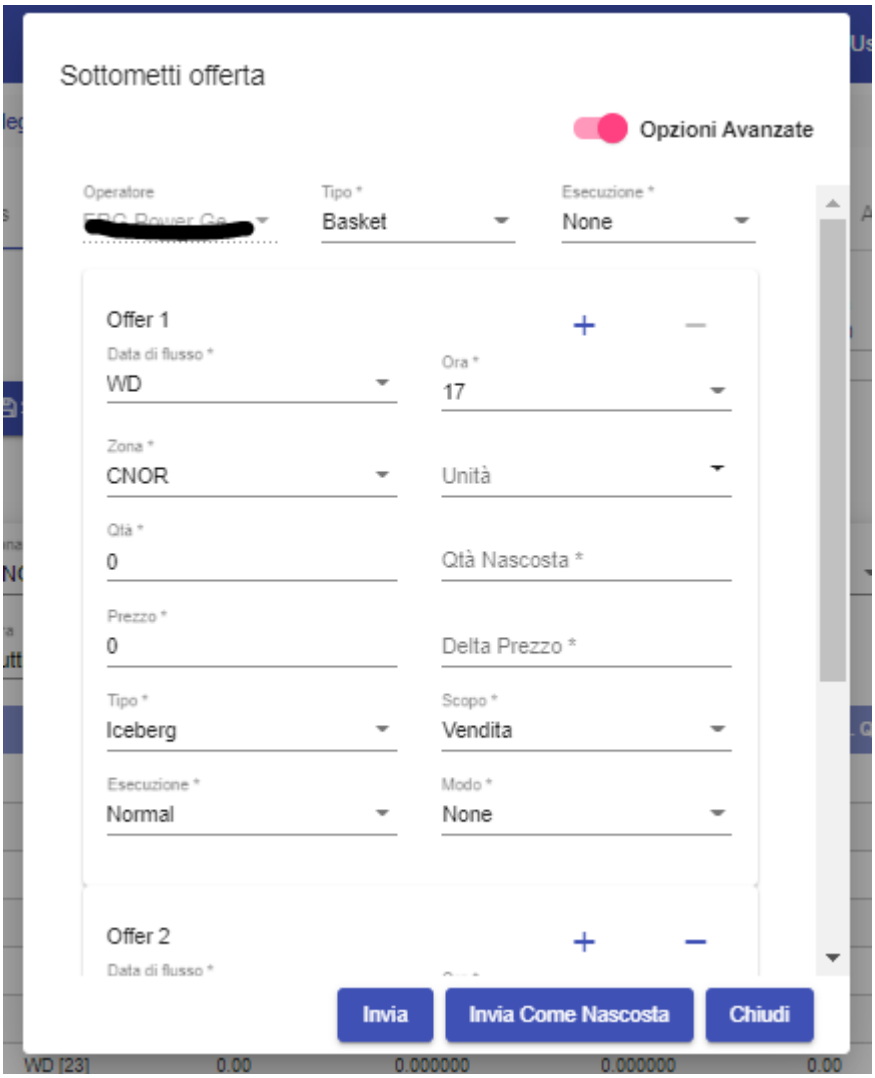


Figure 21: Iceberg bid submission pop-up

By clicking on the **Send** button it is possible to proceed with normal sending of the offer.

By clicking on the **Send as Hidden** button, the offer is sent in hidden mode, so it will not be visible on the book for other participants.

When the system has processed the offer, a red Alert light shown in 'Latest Activities' will appear in

Figure 22: Transaction resulttransaction (the number inside the traffic light indicates how many transactions entered have been successful) Clicking on the BidSubmittal label will show the xml file containing the offer that the participant has sent to the system, with relative FA).

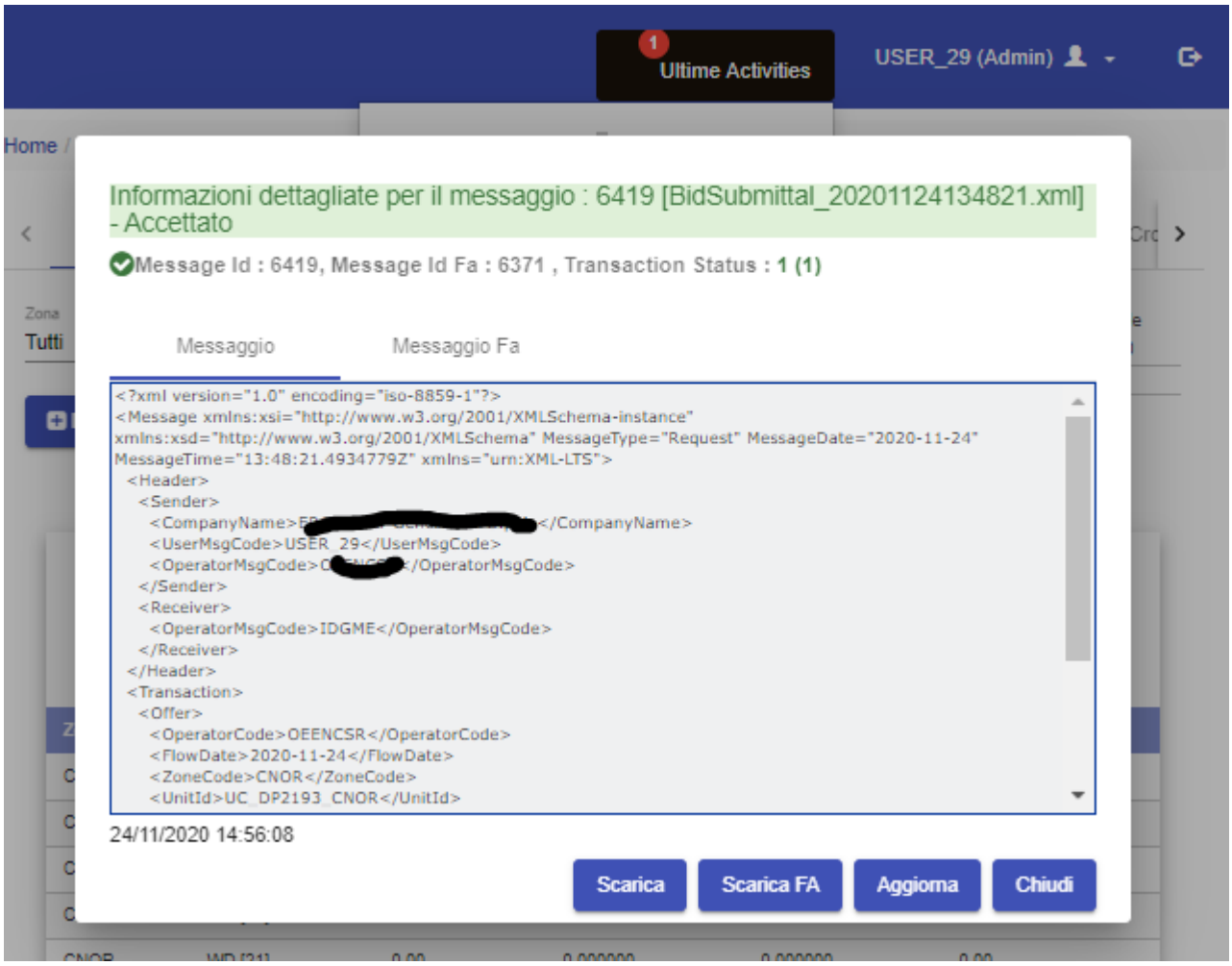


Figure 22: Transaction result

For an order to be successful, the user who submits the order must have deposited their digital signature. Checks are also carried out to avoid self-matching, i.e. an participant cannot submit a buy (sell) offer that matches a sell (buy) offer submitted by the same participant, in the same area for the same unit. or on the same account[1],

Furthermore, before sending the offers to the XBID, the following checks are carried out on the submitted offers:

- validity check: the product must not have exceeded its expiry date, the participant must be active (not excluded or suspended), the market session must be open, the participant must be entitled to offer on the indicated account;

[1]The national consumption units are exempt from the above control (obviously it is not possible to submit a sales offer and a purchase offer on the same unit that can be combined with each other).

- financial adequacy control: the financial guarantee commitment linked to the submission of the offer must not exceed the guarantee amount reserved;
- physical consistency check: the amount offered for purchase (sale) must not exceed the residual downward (upward) margins of the selected account or unit selected. It is also verified that all the bids/offers presented without indication of units and with indication of units do not exceed the downward (upward) margins of the selected account;
- price control: the offer price cannot be higher (lower) than a pre-established maximum (minimum) limit price.

MODIFYING OFFERS

The user can change the details and status of an offer during the period in which the market session is open for trading.

The operation is performed directly from the 'Book', by clicking on the cell relating to the quantity, or from the 'Open Orders' page, as shown in Figure 23.

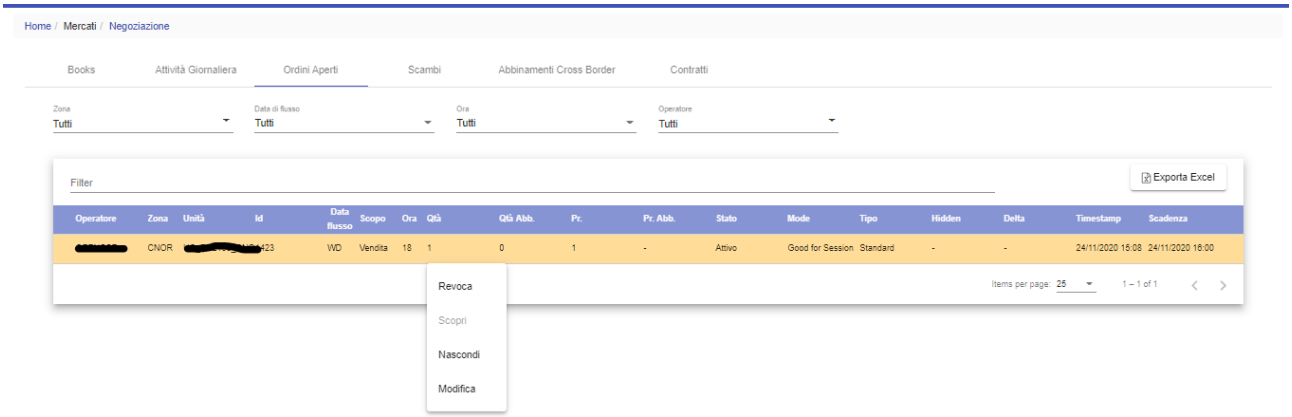


Figure 23: The open orders page

The columns of the table respectively show the participant code, the unit, the identification of the offer, the flow date, the sign of the offer, the relevant period over which the offer was submitted, the quantity submitted expressed in MWh, any quantity already combined, the price submitted, any weighted average price for the combination of the partially combined quantities, the status of the offer, any limitations or presentation methods (**normal** , **execute and cancel**, **execute or cancel**) with which the offer was submitted, the timestamp and the deadline of the offer.

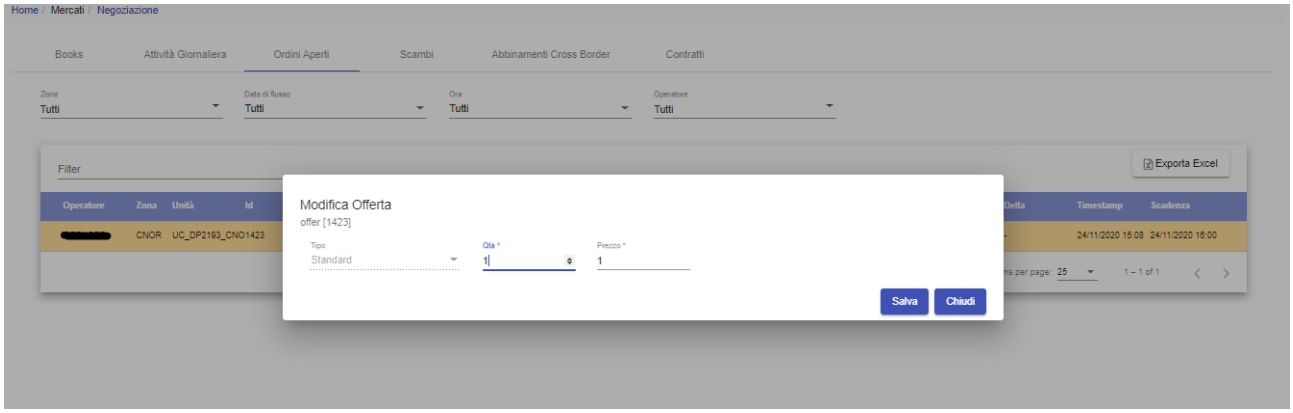


Figure 24: Changing an offer

By clicking on a row in the table and selecting the 'edit' option, a pop-up opens where it is possible to change the price and quantity of the offer.

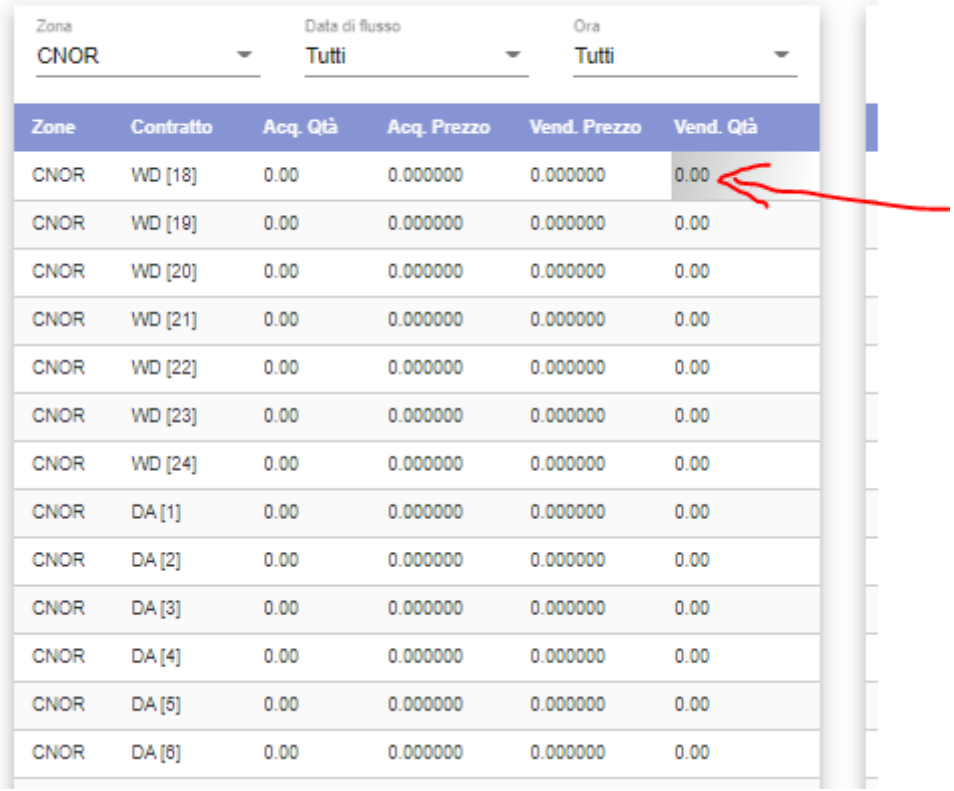
By selecting **'Hide',** the offer is hidden from other participants and is no longer visible in the book.

Conversely, **Show** makes hidden offers visible, making them reappear on the book.

Selecting **Revoke** an offer is permanently revoked.

A hidden offer is however indicated on the book of the participant who presented it with grey colouring of the cell corresponding to the quantity (

Figure 25: Hidden offer.)



Zone	Contratto	Acq. Qtà	Acq. Prezzo	Vend. Prezzo	Vend. Qtà
CNOR	WD [18]	0.00	0.000000	0.000000	0.00
CNOR	WD [19]	0.00	0.000000	0.000000	0.00
CNOR	WD [20]	0.00	0.000000	0.000000	0.00
CNOR	WD [21]	0.00	0.000000	0.000000	0.00
CNOR	WD [22]	0.00	0.000000	0.000000	0.00
CNOR	WD [23]	0.00	0.000000	0.000000	0.00
CNOR	WD [24]	0.00	0.000000	0.000000	0.00
CNOR	DA [1]	0.00	0.000000	0.000000	0.00
CNOR	DA [2]	0.00	0.000000	0.000000	0.00
CNOR	DA [3]	0.00	0.000000	0.000000	0.00
CNOR	DA [4]	0.00	0.000000	0.000000	0.00
CNOR	DA [5]	0.00	0.000000	0.000000	0.00
CNOR	DA [6]	0.00	0.000000	0.000000	0.00

Figure 25: Hidden offer.

Note that following an operation to modify an offer or to change the status of an offer, the offer itself loses time priority with respect to the other offers already present in the book. Therefore, at the same price, an offer modified or subject to a change of status will have lower priority than the offers on the book at the time of the change.

BOOK DETAILS

LTS_NS updates its local books on the basis of the information received from the XBID SOB module following certain events, such as for example the insertion/modification/cancellation of an order, the exit from the negotiation of a contract, the change of status of a delivery area, of a market area, of the interconnection limits between the zones, etc.

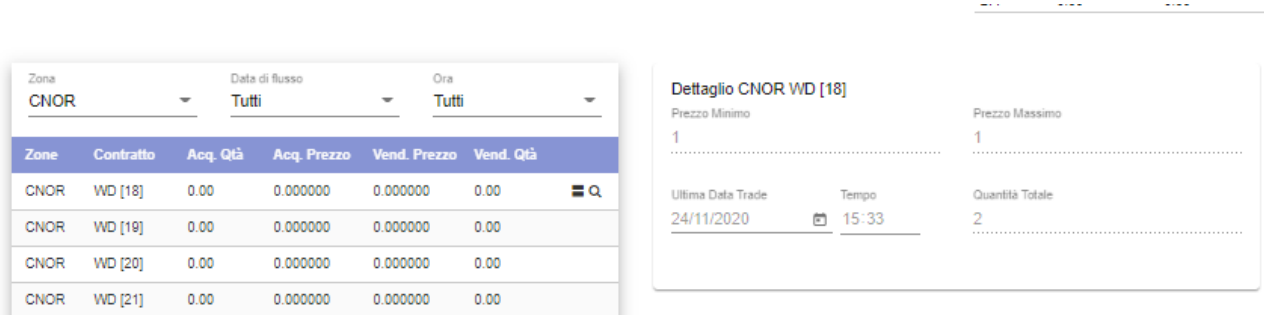


Figure 26: Book Detail.

In addition to the information relating to the offers, the LTS_NS book reports, for each contract-delivery area combination:

- the last matching price;
- the last matched quantity;
- the total combined quantity;
- the highest matching price;
- the lowest matching price;
- the price direction.

The depth of the book is updated following the same events that determine the updating of the books. On the book, in the presence of offers presented by the selected participant, the “Price” cell will be coloured blue (completely if all the offers at the best price level belong to the participant, partially otherwise). By clicking on the cell relating to the quantity, all the other offers will be shown (Figure 27).

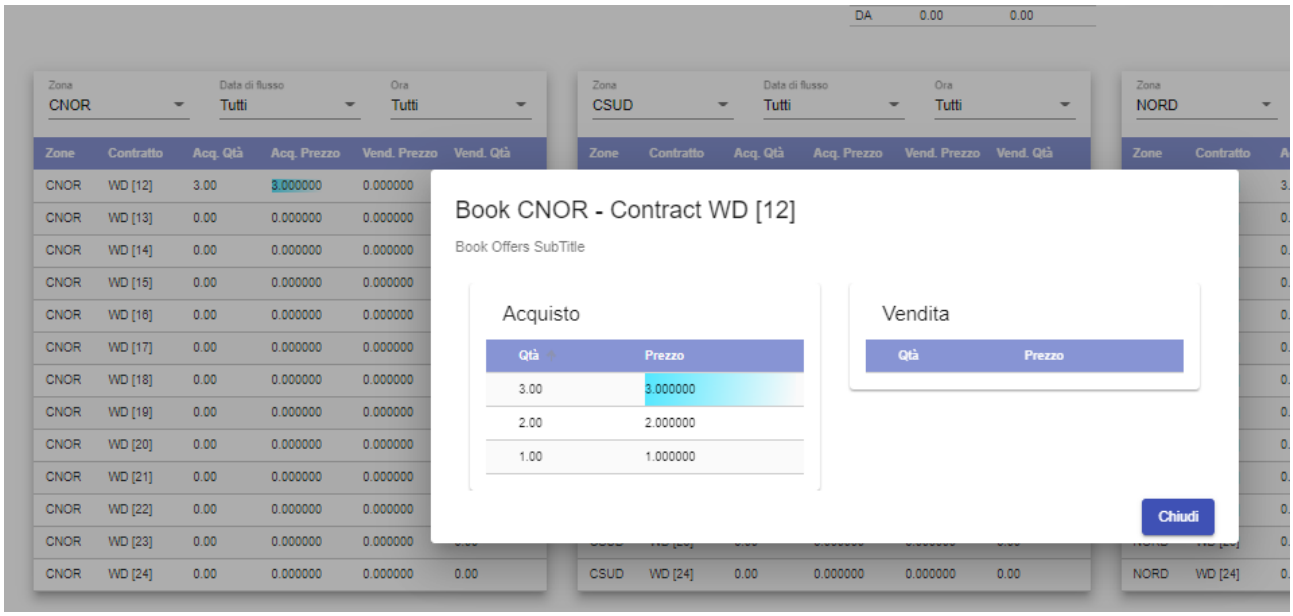


Figure 27: Book Depth.

DAILY ACTIVITY

The 'Daily activity' page (Figure 28) shows all the activity of a participant, in terms of operations on the book.

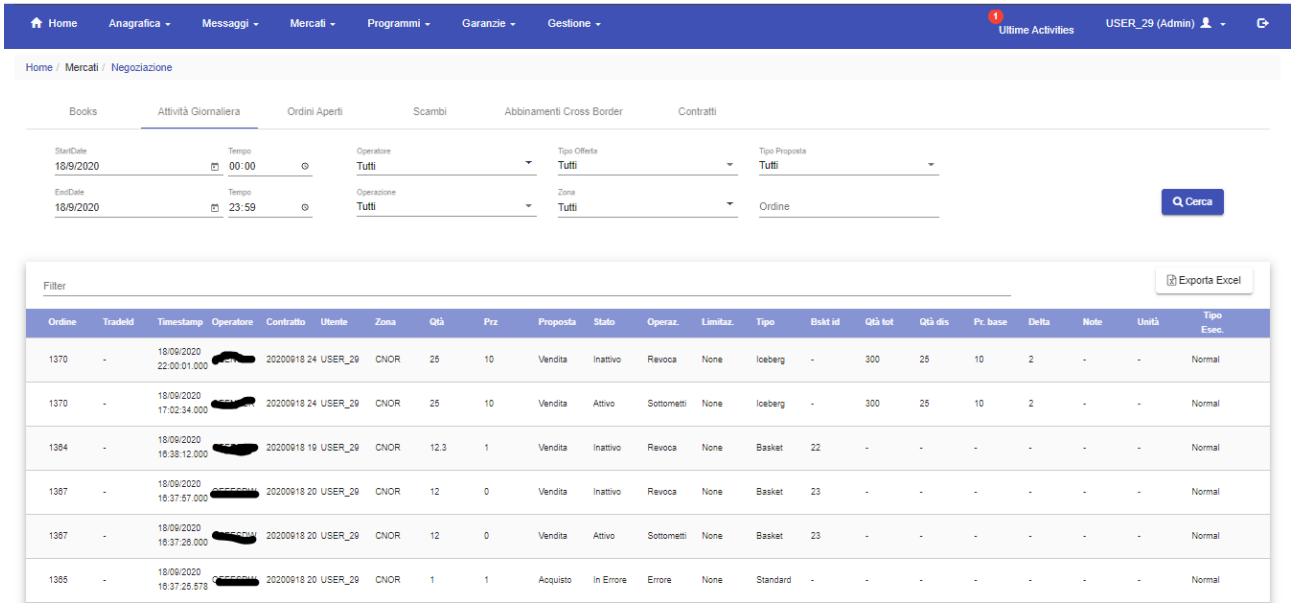


Figure 28: Daily Activity.

All the details relating to the offers submitted by the user are shown, the unique identifier of the offer, any identifier of the match, the timestamp, the participant code, the product on which the offer was made, the code of the user who carried out the operation, the area, the quantity offered (expressed in MWh), the price relating to the operation to which the offer was submitted, the status of the offer, the method of the offer, the possible unit on which the offer has been submitted and any error code in the event the offer has been rejected, reported in the notes field.

In case of a Basket offer, the Basket Id will be present.

In the event of an Iceberg offer, the base price and the delta price will also be shown.

The data can be filtered at the top of the page in relation to Start/End Date (date of submission of the offer), participant, type of offer (standard, iceberg or basket), type of offer (purchase or sale), operation (all, submit, hide, revoke, match, reject), zone and order.

The free filter (Filter) is present on the page

It is also possible to export the report in Excel format by clicking on the ‘Excel Export' button.

OPEN ORDERS

The 'Open Orders' page shown in

Figure 29 shows the offers relating to the selected participant submitted on the book and not yet matched (or partially matched and with residual quantity still available on the trading book).

The data can be filtered at the top of the page in relation to area, flow date, time and participant.

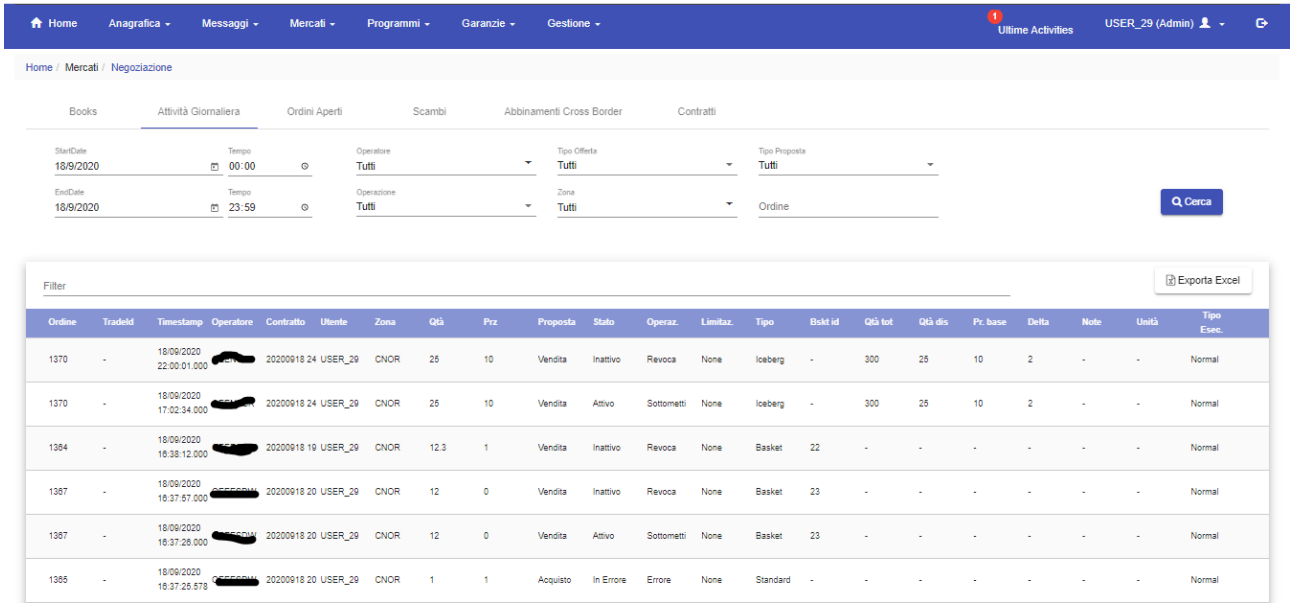


Figure 29: Offers List.

Details such as the participant code, the area, the unit, the quantity submitted (expressed in MWh), the type of offer, the price submitted, the combined quantity, the flow date, the status of the offer, the expiry date, the offer method, any matching price, the residual quantity (expressed in MWh) and an indication of whether the offer is hidden or not are shown.

The free filter (Filter) is present on the page.

It is also possible to export the report in Excel format by clicking on the ‘Excel Export' button.

EXCHANGES

The 'Exchanges' page reported in

Figure 30 shows concluded transactions.

The data can be filtered at the top of the page in relation to the start/end date of trading, area, flow date, relevant period and participant.

Details are shown, such as: the matching date, the delivery area of origin and destination, the name of the contract, the id of the buying participant and that of the reseller participant, the quantity and price accepted, the value and the Trade Id.

The free filter (Filter) is present on the page.

It is also possible to export the report in Excel format by clicking on the ‘Excel Export' button.

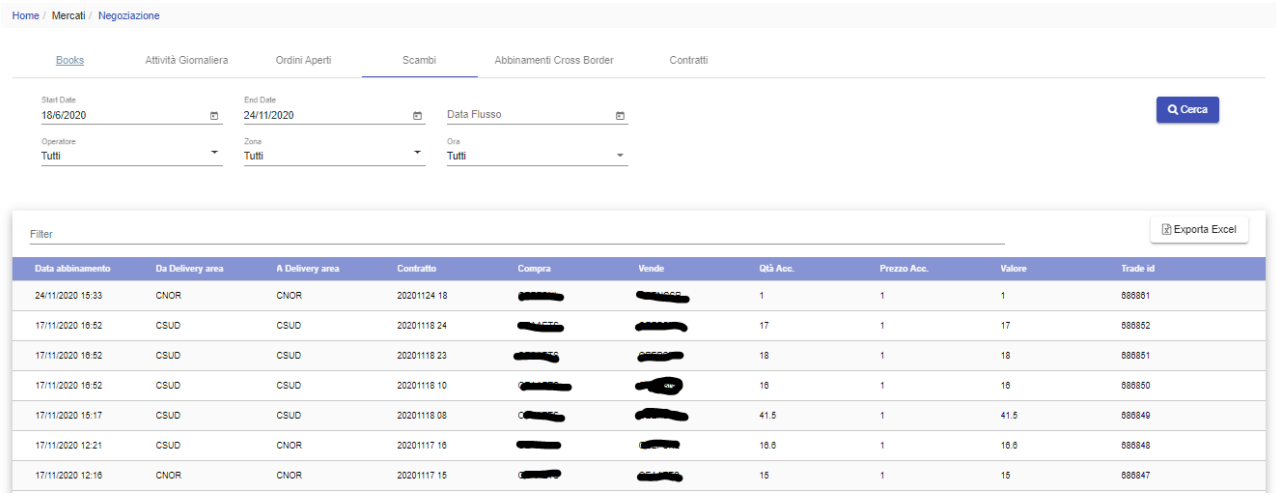


Figure 30: Exchanges.

CONTRACTS

The 'Contracts' page shown in Figure 31 shows the tradable contracts on the book for each flow date.

The data can be filtered at the top of the page in relation to the start/end date of delivery, area, time. There is also an 'Active Only' check box that is used to alternate the display of all contracts or restrict it to only active ones.

Details such as the ID, the name of the contract, the area, the start/end date of trading, the start/end date of delivery and the marketable range of the product are shown in the report.

The free filter (Filter) is present on the page.

It is also possible to export the report in Excel format by clicking on the ‘Excel Export' button.

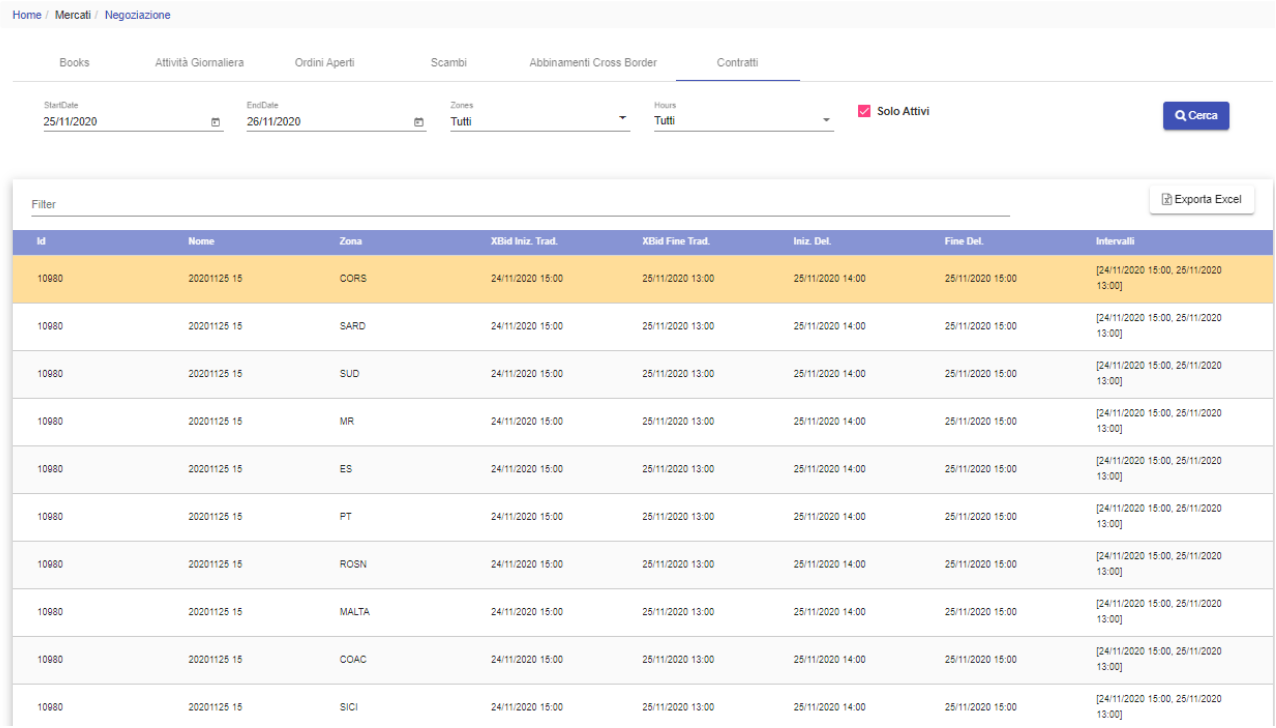


Figure 31: Contacts

ENERGY ACCOUNTS

The 'Energy Accounts' page shown in Figure 32 shows the report relating to the Energy Accounts of the selected participant.

The data can be filtered at the top of the page in relation to flow date, participant, zone and time.

Each participant, for each zone, has an Energy Account available, which includes all the production units of which they are a dispatching user or for which they have received a proxy, all the pumping units of which they are a dispatching user or for which they have received proxy, all virtual units, in withdrawal and injection, of which they are a dispatching user or for which they have received a proxy. The national consumption units, instead, are not subject to the Energy Account.

The available capacity of the electricity account used is updated following the submission/modification/matching of an offer presented without indication of the unit or on units other than those of national consumption.

The available capacity of the unit possibly used is updated following the submission/modification/matching of an offer presented on the unit.

The margins committed on the individual units relating to an energy account are also available as a detail on the "Units" page.

Details such as participant, zone, time, total up/down margin, engaged and available are shown

The free filter (Filter) is present on the page.

It is also possible to export the report in Excel format by clicking on the ‘Excel Export' button.

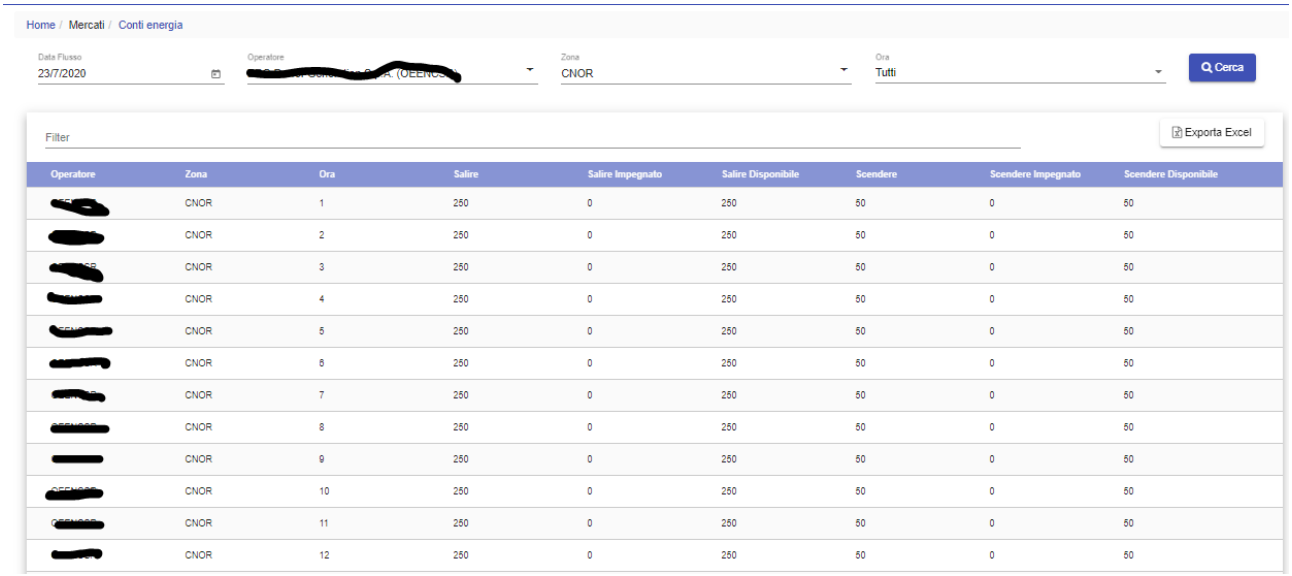


Figure 32: Energy Accounts

IPEX RESULTS

The 'IPEX Results' page reported in

Figure **30** shows by default the report relating to the results of the last confirmed MGP market.

The data can be filtered at the top of the page in relation to flow date, area and time.

Details such as flow date, time, zone, Pun, zone price and CCT are shown.

The free filter (Filter) is present on the page.

It is also possible to export the report in Excel format by clicking on the ‘Excel Export' button.

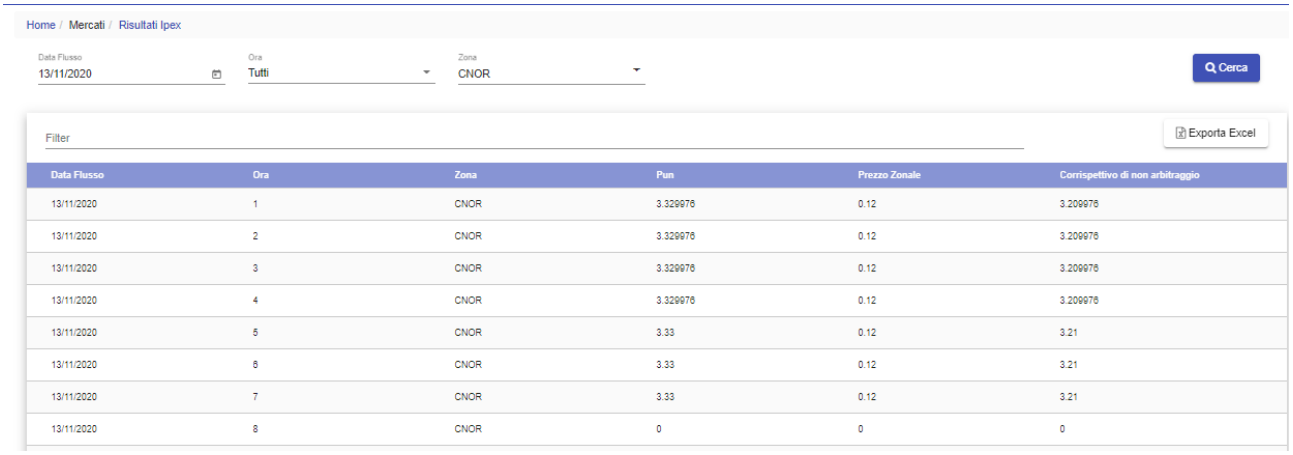


Figure 33: Ipex Results

DISPUTES

Figure 34 shows the 'Disputes' page through which it is possible to present and monitor the progress of disputes. Each dispute can be entered and then updated by associating new messages. It is possible to see the list of all the complaints made for the participant who represents themselves and in particular: the unique identifier of the dispute, the timestamp indicating the moment of submission, the code and the company name of the company (participant) to which the dispute refers, the user who submitted the dispute and their first name and surname, the market (XBID), the title of the dispute, the description and its status. By clicking on the dispute it is possible to open the details relating to the messages associated with the selected dispute, possibly replying (Reply) to the response obtained from GME. When the dispute is closed by GME it is no longer possible to reply.

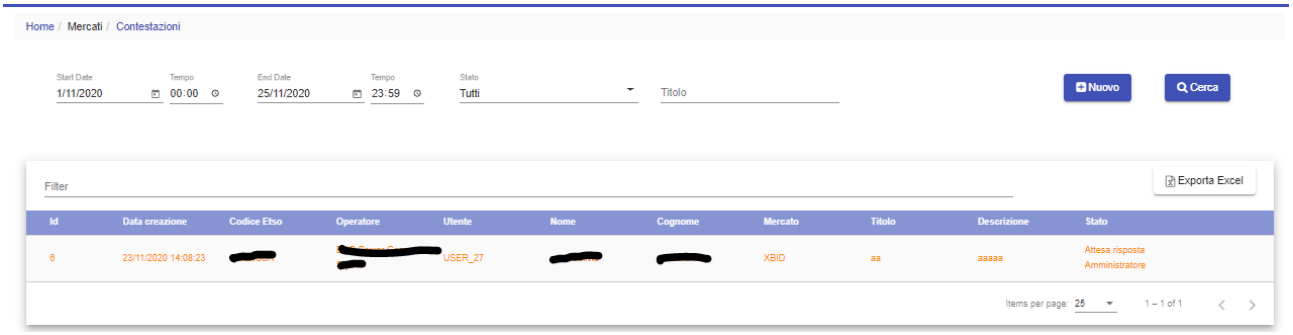


Figure 34: Disputes

Using the icon Nuovo it is possible to open the window to add a new dispute, as shown in Figure 35.

The free filter (Filter) is present on the page.

It is also possible to export the report in Excel format by clicking on the 'Excel Export' button.

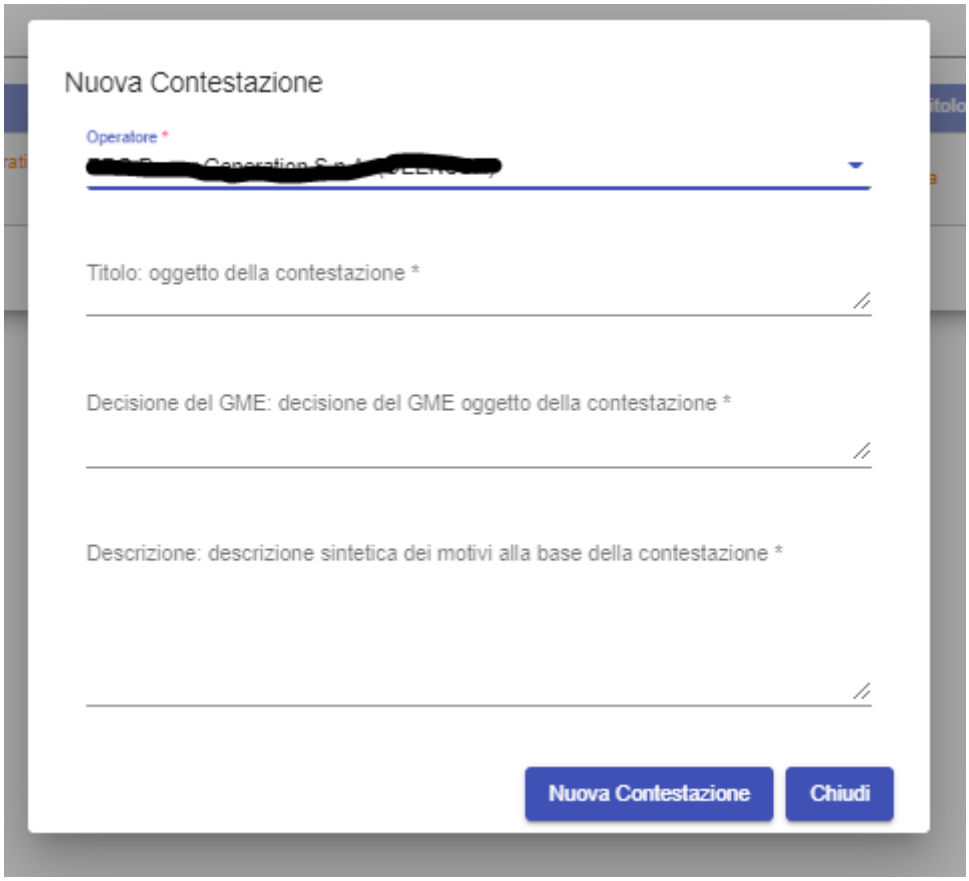


Figure 35: Insertion of a new dispute

PROGRAMS

The term physical programming (or appointment) refers to that set of activities that allow each participant to indicate:

- how much energy is intended to be introduced into the electricity grid through the production or pumping units, which are available for a specific time on a certain date, following the trading activity carried out in the MI-XBID area

- how much energy will be withdrawn from the electricity grid through own consumption or pumping units, of which there is availability, for a specific time on a certain date.

The appointment is closely related to:

- the residual capacity of each unit after the last MI session, possibly modified by the results of the different MSD phases.
- the net position accrued by participants in the MI-XBID continuous trading market.

PHYSICAL PROGRAMMING

The 'Physical programming' page is used to submit, modify, revoke and consult the physical programming of the participants under the user's responsibility (Figure 36).

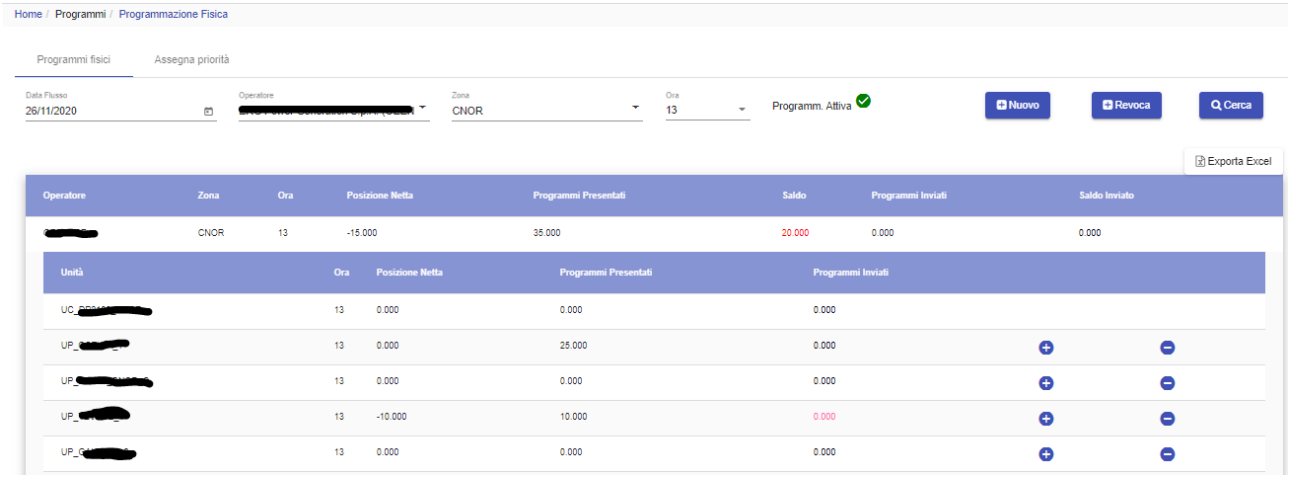


Figure 36: Physical programming.

The data can be filtered at the top of the page by flow date, participant, time and zone.

The Flag Programm. Attiva indicates that the system allows for the ability to submit explicit physical programming at a given time.

By default, the page shows a report where details are shown including: participant code, zone, time, net position (negative if on sale, positive if relating to purchase), programs presented and sent (obtained as the sum of the programs entered in the units underlying the account; positive for injection programs, negative for withdrawal programs), balance and balance sent (delta between net position and programs presented).

In particular:

- in the event that the program presented is lower than the net position: the balance on what is presented will be highlighted in orange;
- in the event that the program presented exceeds the net position: the balance on that presented will be highlighted in red;
- in the event that the program sent is lower than the net position: the balance on the sent will be highlighted in yellow.

For each hour and zone, on the same page, it is possible to view the units on which the physical programming has been carried out.

By clicking on a row of the report relating to an hour/zone, the table will be expanded with the details of the units underlying the zonal account (unit, hour, net position, programs presented and sent). For the hours still included in the programmability interval, it will be possible to submit (or revoke) explicit programs by directly selecting the unit on which it is intended to program, using the '+' (submit) or '-' (revoke) buttons, which will allow the opening of a web form for submitting of the program. The same submission or revocation form of a program can also be opened using the two buttons Nuovo and Revoca .

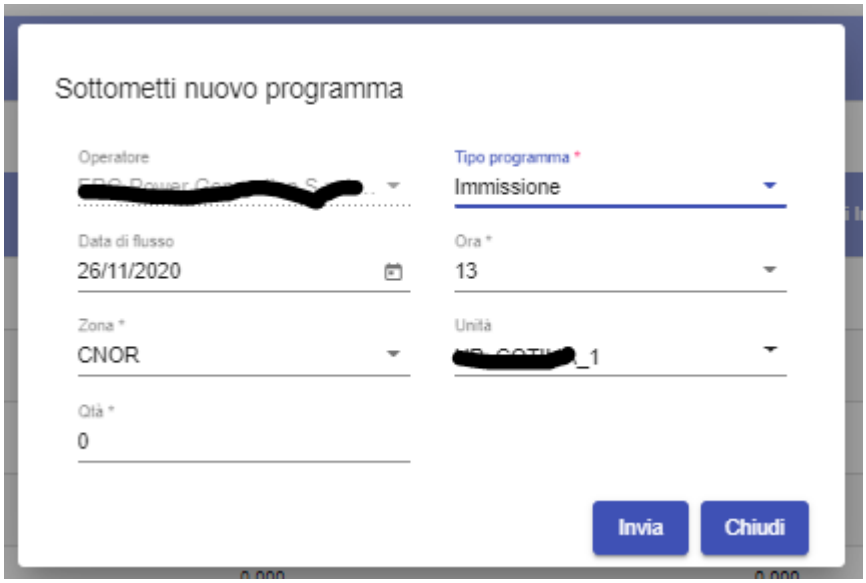


Figure 37: Submission mask for a new program.

It will not be possible to submit or revoke explicit programs on national consumption units or to revoke implicit programs submitted on any unit.

Explicit schedules can be changed within the programmability range.

The balance of the individual units, intended as the sum of the implicit and explicit programs, is sent to IPEX:

- within 30 minutes the closure of MSD1 for flow date D for all hours included in MSD1 of flow date D;
- within the first 3 minutes of hour h of the date flow date D, for hour h;
- after the first 3 minutes of hour h of the flow date D, for all remaining hours, starting from hour h+1.

At the end of the third minute of the hour or within 30 minutes of closing of the MSD1, LTS_NS performs the physical consistency checks and:

- if the program is assigned to a suspended participant, the program is rejected.
- if the program is assigned to a disabled unit, or is no longer available to the participant, the program is rejected.
- in the event that the programs presented are lower than the net positions, the imbalance is applied.
- in the event that the submitted programs exceed the net positions, LTS_NS will cut the programs to capacity, starting from the last programs presented on LTS_NS, except for the following case.
- in the event that the programs presented on a given unit are lower than the minimum of the feasibility interval communicated by TERNA, LTS_NS performs stretching of the program, even if this involves a physical balance that is higher than the commercial one

Also on this page it is possible to export the report in Excel format by clicking on the ‘Excel Export' button.

NET POSITIONS

The 'Net Positions' page shows the report on net zonal positions.

The term “net position” refers to the commercial position accrued by an participant in the MI-XBID. For each participant, for each hour and energy account, it is calculated by adding the volumes of the combined sales offers (with a negative sign) and the volumes of the combined purchase offers (with a positive sign).

The data can be filtered at the top of the page in relation to the start and end date of flow, zone, participant code and relevant period.

Details such as flow date, zone, participant code, time, net position (expressed in MWh) are shown. In the last column it is shown through a flag if the position has been sent to Ipex or not.

The free filter (Filter) is present on the page.

It is also possible to export the report in Excel format by clicking on the 'Excel Export' button.

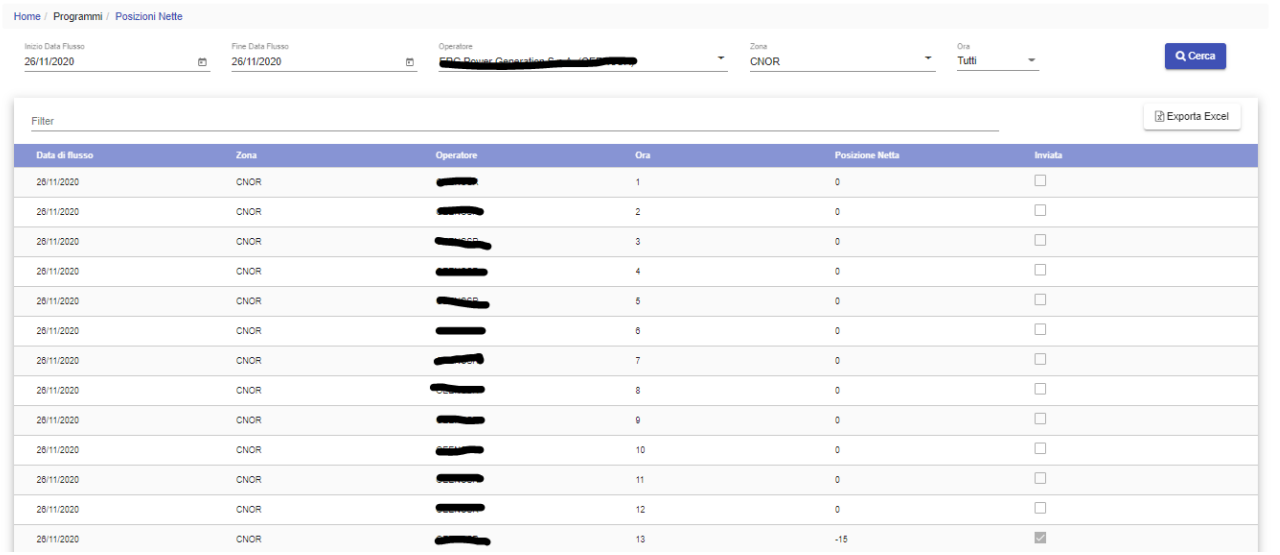


Figure 38: Net Positions.

UNIT PROGRAMS

A successfully entered program must update the 'Unit Programs' page.

Figure 389 shows the page. The report can be refined by filtering by flow date, participant, zone and time.

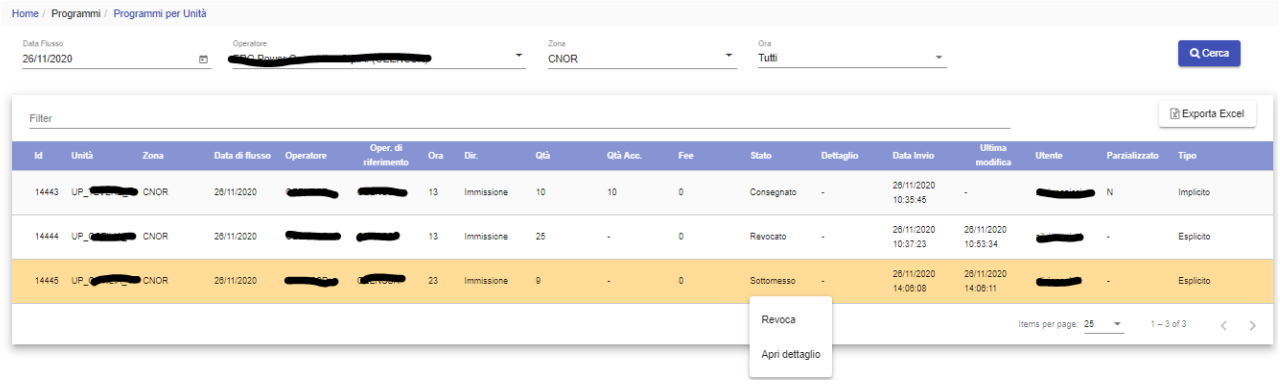


Figure 39: Unit programs.

Details are shown such as: the unique identifier of the submitted program, the unit, the flow date, the participant, the reference participant, the time, the direction of the physical programming (input or withdrawal), the accepted quantity, any non-arbitrage fee applied, the status of the submitted

program, the timestamp, any timestamp of the last modification, the user who submitted the program and the type of programming (implicit or explicit).

By clicking on the line relating to a schedule still included in the programmability interval, it is possible to revoke it (Figure 40), otherwise it is possible to view the details in a pop-up.

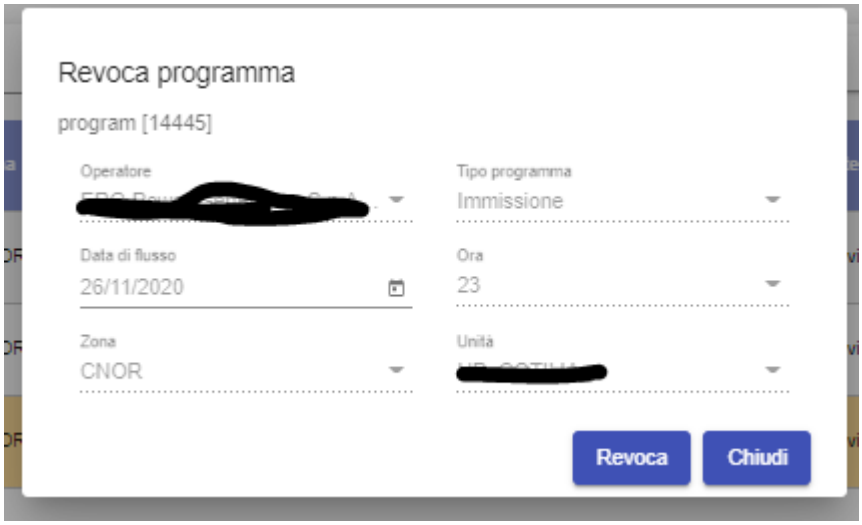


Figure 40: Net Positions.

GUARANTEES

In the section dedicated to the management of financial guarantees, it is possible to view the details of the financial guarantees booked for the purposes of MI-XBID trading, the exposures/credits accrued as a result of the negotiations concluded and the offers presented and the overall situation of the participant on the Netting system.

The available amount of financial guarantees may vary as a result of:

- the combination of a purchase/sale offer.
- the combination of a purchase offer, at a positive price, commits a booked guarantee for 100% of its equivalent value. In particular:
  - for purchase offers without indication of units or for purchase offers on units other than national consumption units, it will be equal to its equivalent
  - for bids for domestic consumption units it will be equal to its equivalent value corrected by the non-arbitrage consideration
- the combination of a purchase offer, at a negative price, with a free guarantee booked for 100% of its equivalent value. In particular:
  - for purchase offers without indication of units or for purchase offers on units other than national consumption units, it will be equal to its equivalent
  - for bids for domestic consumption units it will be equal to its equivalent value corrected by the non-arbitrage consideration
- the combination of a sale offer, at a negative price, commits a financial guarantee for a value equal to 100% of its countervalue. In particular:

- for sales offers without indication of units or for sales offers on units other than national consumption units, it will be equal to its equivalent
- for offers to sell on domestic consumption units it will be equal to its equivalent value corrected by the non-arbitrage price

Finally, it is not possible to commit a financial guarantee value higher than the amount booked.

GUARANTEE REPORT

The 'Guarantee Report' page allows the user to view the situation of the financial guarantees booked relating to the MI-XBID market in relation to the participants within their competence.

The data can be filtered through the participant drop-down menu, or through a free filter (Filter).

The report contains information such as the code and company name of the participant, the amount of the guarantee booked, used and available for each flow date/trading date combination, and the date and time of the last booking

It is also possible to export the report in Excel format by clicking on the 'Excel Export' button.

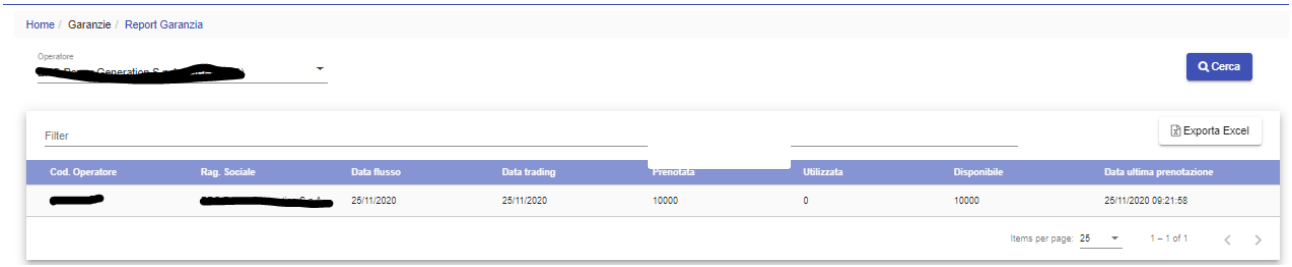


Figure 41: Guarantee Report.

GUARANTEE DETAILS

The 'Guarantee Details' page is used to view the general status of the financial guarantees available, deposited on Netting (and therefore also relating to the other markets relating to Netting) of the participants within your competence (Figure 42).

For each participant selected from the drop-down menu, the following are displayed:

- in the 'Guarantee Situation' section (relative to the current date) the initial guarantee (the amount of valid guarantees registered on the Netting platform minus the Maintenance Margin); the reduced Initial Guarantee (the difference between Initial Guarantee and Exposure or Credit); the Committed Guarantee (the exposure determined by all the

positions held on all the platforms whose guarantee refers to Netting); the Residual Guarantee and any Debt not covered by the Guarantee

- in the section 'Details of the situation of guarantees' (relating to the current date) all the deposits and sureties relating to the centralised Netting guarantee system are displayed (Figure 42).

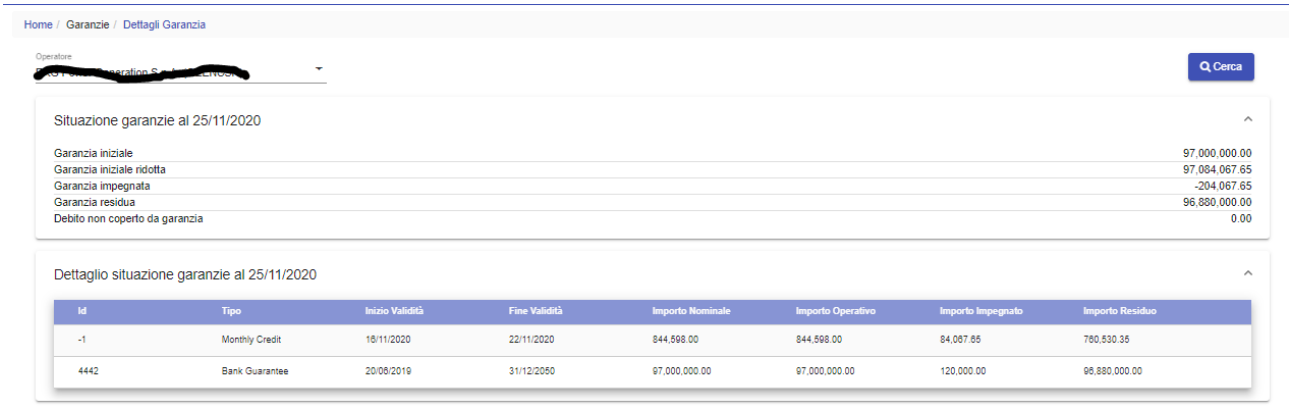


Figure 42: Guarantee Details.