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DAY AHEAD MARKET WEB APPLICATION

USER GUIDE

MARKET OPERATIONS DIRECTORATE
2016

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INTRODUCTION

As EPİAŞ granted electricity market operation license, plenty of innovations were taken place in order to project, establish, develop and operate the electricity market so as to fulfil the sector needs in a more efficient, transparent and reliable way through setting a bunch of goals. In the light of these goals, 'Day Ahead Market Project` has been commenced to handle increasing number of participants, satisfy sector's requirements and have well-designed software similar to the web applications in developed markets. This new web application assisting to determine Market Clearing Price (MCP) is one of the most crucial projects of our company.

The previous Day Ahead Market web application has been used since December 1, 2011. However, it was unable to fulfil sector's needs and wants because of having a software technology and algorithm based upon standards of 2004.

Since previous web application had external dependence and thus its source code was not open to access, its program development and problem solution cannot be possible. Hence, Day Ahead Market web application eliminates such kind of problems which may occur.

To design Day Ahead Market web application, the programs being used by European markets have been analyzed in a detailed way and this new software was founded by our experts having experienced in operating the previous web application since December 1, 2011.

As a result, Day Ahead Market software project, entirely in-house developed software, is successfully completed in line with its practical interface for users, flexibility and openness to new upgrades.

To improve user-friendly features and allow participants to test new functions, web application is available here in https://goptest.epias.com.tr. Only authorized users will be able to access the system via username and password. Unauthorized users will be able to access the test system in case of being entitled by authorized users in DGPYS system.

Your opinions and suggestions will be more than welcome to create a well-working system for participants and obtain maximum benefit from this new web application via our mail service gorusleriniz.gop@epias.com.tr

2. DAY AHEAD MARKET GENERAL PRINCIPLES

- Legal entities holding license can join Day-Ahead Market by signing Day-Ahead Market Participation Agreement which includes market participants responsibilities regarding to Day-Ahead Market
- Day-Ahead Market transactions are performed daily on hourly basis. Each day starts from 00:00 am and ends at 00:00 am of following day and consists of hourly time periods.
- Market participants can submit their orders from next day to 5 days later.
- Prices and volumes applied for clearing of Day-Ahead Market at daily basis are determined for each hour.
- Advance payment notifications as results of clearing calculations for market participants based on their day-ahead balancing activities indicate payables to Market Operator and receivables from Market Operator for respective market participants and these notifications are announced in a daily basis fashion by Market Operator to market participants via Istanbul Clearing, Settlement and Custody Bank Inc.- Takasbank.

➢ Letters of guaranty are presented to Market Operator every day until 10:30 am and collaterals other than letters of guaranty are presented to Istanbul Clearing, Settlement and Custody Bank Inc.-Takasbank every day until 11:00 am by market participants.

➢ At previous working day before week-end and/or official holiday, Market Operator performs collateral check twice a day at 11:00 and 17:00 respectively. During collateral check performed at 17:00, total collateral amount present at 11:00 collateral check is considered.

a. In order for assessment of orders presented by Market Participants to Day-ahead Market for first day of week-end and/or official holiday, participants fulfil their minimum cash collateral and total collateral amounts at previous working day until 10:30 using letter of guarantee, at previous working day until 11:00 using collateral other than letter of guarantee.
b. In order for assessment of orders presented by Market Participants to Day-ahead Market for second day and following days of week-end and/or official holiday, participants fulfil their minimum cash collateral and total collateral amounts at previous working day until 16:30 using letter of guarantee, at previous working day until 17:00 using collaterals other than letter of guarantee for the collateral check at 17:00 at previous working day.

3. PROCESSES

➢ Day-Ahead Market participants submit their day-ahead market orders belonging to next day every day until 11:30 am via DAM Web Application system to Market Operator

➢ Day ahead market offers that are presented by market participants for next day are considered for determining market clearing price and market clearing volume after collateral check, based on relevant procedure, is performed and adequate collateral amount is confirmed.

➢ Day-Ahead Market orders submitted to Market Operator are verified during 11:30 am-12:00 pm.

➢ Verified orders are assessed via optimization tool during 12:00 pm-13:00 pm; market clearing price and market clearing volumes are determined for every hour of the related day.

➢ Trade confirmations including sales-purchase volumes are announced to relevant market participants every day at 13:00 pm. Market participants can object to these notifications in case of errors regarding to transactions during 13:00 pm-13:30 pm.

➢ Objections are evaluated during 13:00 pm-13:30 pm and relevant results are notified to market participants that made the objection. At 14:00 pm, finalized prices and matched volumes for 24 hours of next day are announced.

➢ Market participants can submit their bilateral contract notifications to Dam Web Application system during 00:00 am - 16:00 pm every day.

➢ Processes described above are normal processes for Day Ahead Market and in case of technical problems that may arise from Day Ahead Market system, emergency procedures are carried out by Market Operator.

4. ORDERS

4.1. General Principles

- Participants can submit hourly and daily for a particular period of hour/hours and/or flexible orders to Day-Ahead Market.
- Orders are composed of volume and price information that can change for different hours.
  a. Submitted order prices have centesimal sensitivity.
  b. Orders can be made in terms of Turkish Lira. (TL/MWh)
  c. Order volumes are submitted in terms of Lot as an integer number. 1 Lot is equivalent to 0,1 MWh.
- Orders can be submitted as purchase and sale instruments. Depending on the sign in front of the order volume, the order is marked either as purchase or sale order. (For instance 100 Lot indicates a purchase order whereas -100 Lot indicates a sale order)
- Minimum and maximum price limits are determined by Market Operator as 0 TL and 2000 TL respectively. Depending on changing market circumstances, Market Operator updates minimum and maximum price limits and announces them via DAM Web Application to participants.
- Minimum and maximum order volumes are determined by Market Operator as ±100.000 Lot respectively.
- Orders submitted for same delivery date are recorded to the system as a new version in case they are updated.
- Latest version of an order is taken into consideration during matching.
- Older version of orders can be viewed via Version Filter.

4.2. Single Hourly Orders

- Single hourly orders have maximum 64 steps which contain 32 purchase and 32 sales
- The prices regarding single hourly orders must be listed increasingly.
- In same price step there cannot be valid single hourly order for both purchase and sale.
- During formation of supply-demand curve, linear interpolation method is employed to interpolate values between two consecutive price/volume steps.

4.3. Block Orders

- Block orders contain information regarding to price, volume and time period encompassed.
- Block orders can encompass minimum of 4 hours and maximum of 24 hours.
- Block order hours are determined as consecutive and whole hours
- Block orders are processed as wholly-indivisible.
- Each block order can either be accepted or rejected for the time period that it encompasses.
- Participants can use existing block order name or they can determine their own block order name.
- Daily maximum block order number that can be made is 50.
- Linked block orders can be formed by determining at most 3 block orders (purchase or sale) and given in same bidding zone. More than one linked block order can be submitted.

4.4. Flexible Orders

- Flexible order contains information about price and volume per hour.
- Flexible order is only being used for sales.
- Flexible order is not related with a particular hour.
- Daily maximum flexible order number that can be made is 10.

4.5 Bilateral Contracts

- Bilateral contracts consist of 24 hourly data.
- Positive values are indicated in case of purchase and negative values are indicated in case of sale.
- The values given by parties are viewed reciprocally. As such, one is a purchase bid while the other one is a sale bid.
- The contract is accepted only if both parties submit same values.
- Bilateral contracts can be submitted at most 60 days earlier.

5. Authorization for Day Ahead Market via DGPYS

Authorization for Day Ahead Market operations for users within an organization is performed at website dgpys.epias.com.tr. Only authorized users (User having an ID with PK Code) within an organization can perform authorization and limit determination. In order to perform authorization via DGPYS following steps should be followed

5.1. Authorization Group

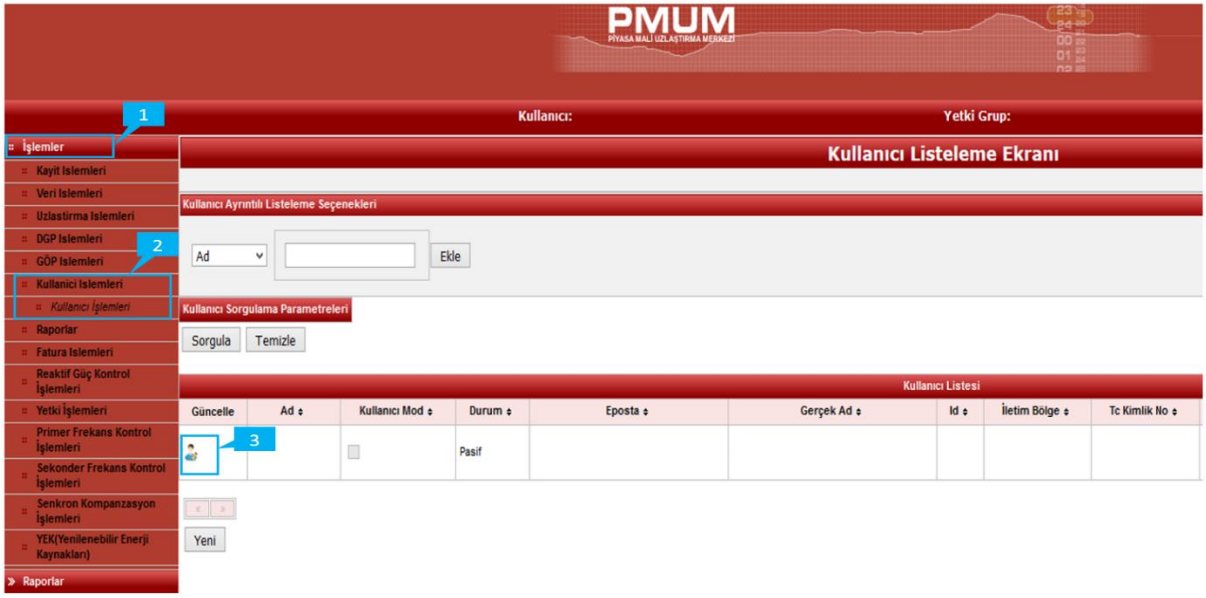


Figure 1: Users Page within Organization

1. "Operations": "Click" on this button to view list of operations under DGPYS screen

2. "User Operations": "Click" on this button to view all users under an organization

3. "Update" : "Click" on this button to redirect user to information update screens for users under an organization.

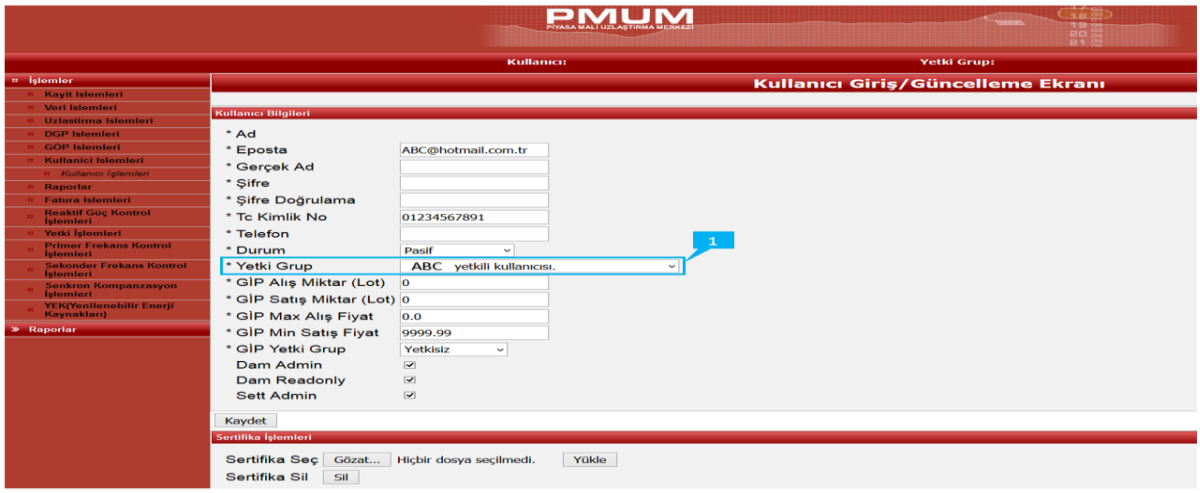


Figure 2: User Information Update Screen

1. "Authorization Group": This drop list allows users to view under which authorization group is the user to be authorized.

5.1.1. Authorization Operations

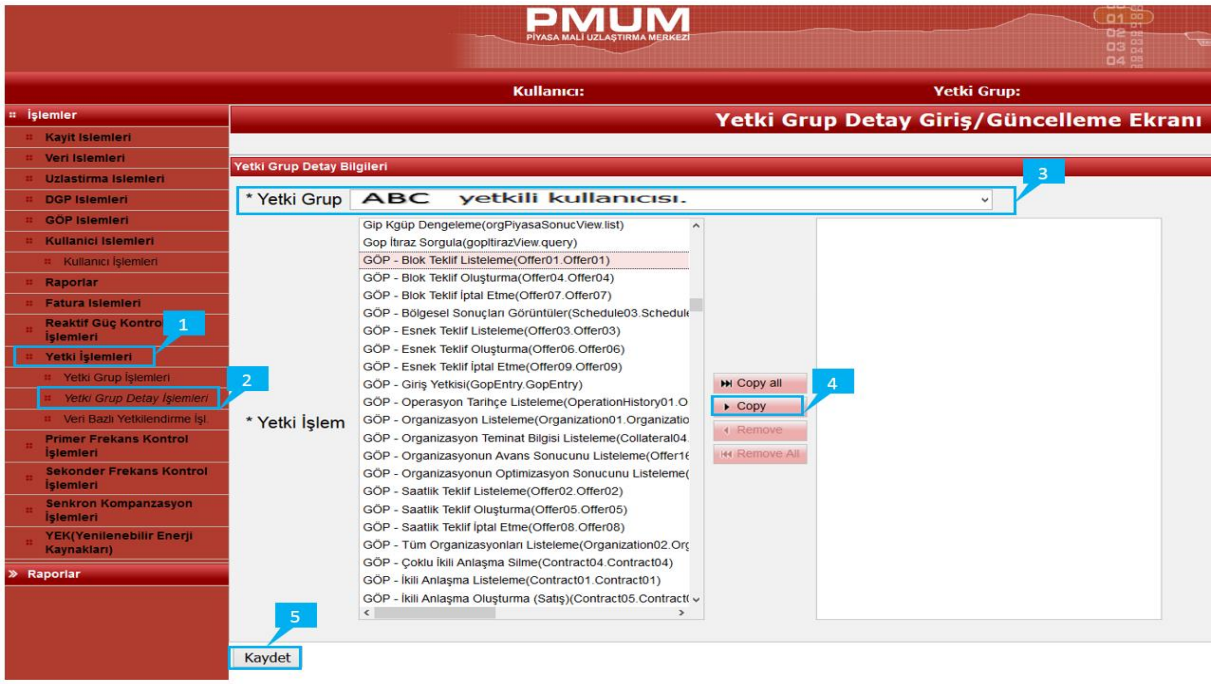


Figure 3: User Authorization Screen

1. "Authorization Operations": "Click" on this button to view "Authorization Group Details Operations"
2. "Authorization Group Details Operations": This button allows user, whose authorization group is known, to view desired authorization operation screen

3. "Authorization Group": In this area user's, whose authorization group is known, authorization group is selected.
4. "Copy" ▸ Copy: After selecting the name of user wanted to be authorized, desired authorization topics are selected and selected areas are transferred to blank column on right hand side.
5. "Save" Kaydet : After transferring selected topics to blank column, "click" on this button to complete authorization operation.

5.1.2. Authorization Topics and included authorization

a. (DAM - Block Order Listing) Offer01.Offer01: Authorization for listing block orders that are presented earlier.
b. (DAM - Block Order Formation) Offer04.Offer04: Authorization for adding and updating a new block order.
c. (DAM- Block Order Cancellation) Offer07.Offer07: Authorization for deleting an existing block order.
d. (DAM - Regional Results Display) Schedule03.Schedule03: Authorization for accessing menu described at section 8.1.2
e. (DAM- Flexible Order Listing) Offer03.Offer03: Authorization for listing block orders that are presented earlier.
f. (DAM - Flexible Order Formation) Offer06.Offer06: Authorization for adding and updating a new flexible order.
g. (DAM - Flexible Order Cancellation) Offer09.Offer09: Authorization for deleting an existing flexible order.
h. (DAM - Access Authorization) GopEntry.GopEntry: Authorization for accessing to Day Ahead Market
i. (DAM – Operation History Listing) OperationHistory01.OperationHistory01: Authorization for accessing menu described at articles 6 and 7
j. (DAM - Organization Listing) Organization01.Organization01: Authorization for filtering counterparty at Bilateral Contracts page
k. (DAM - Organization Collateral Information Listing) Collateral04.Collateral04: Authorization for accessing "Collateral Control" menu described at section 8.3
l. (DAM - Organization Advance Payment Result Listing) Offer16.Offer16: Authorization for accessing "Advance Payment Operations" menu described at section 8.2
m. (DAM - Organization Optimization Result Listing) Offer15.Offer15: Authorization for viewing matched order results and objection pages
n. (DAM – Single Hourly Order Listing) Offer02.Offer02: Authorization for listing single hourly orders that are presented earlier.
o. (DAM – Single Hourly Order Formation) Offer05.Offer05: Authorization for adding and updating a new hourly order.
p. (DAM – Single Hourly Order Cancellation) Offer08.Offer08: Authorization for deleting an existing single hourly order.
q. (DAM – Listing All Organization) Organization02.Organization02: Authorization for selecting counterparty existing for a new bilateral contract
r. (DAM – Cancellation of Multiple Bilateral Contracts) Contract04.Contract04: Authorization for deleting all existing bilateral contracts via single operation

s. (DAM – Bilateral Contract Listing) Contract01.Contract01: Authorization for viewing existing bilateral contracts
t. (DAM – Bilateral Contract Formation (Sales)) Contract05.Contract05: Authorization for performing bilateral contract in sales side
u. (DAM - Bilateral Contract Formation (Purchase)) Contract02.Contract02: Authorization for performing bilateral contract in purchase side
v. (DAM - Bilateral Contract Cancellation) Contract03.Contract03: Authorization for deleting existing bilateral contracts
w. (DAM – Bilateral Contract History Listing) Contract07.Contract07: Authorization for viewing versions of bilateral contracts
x. (DAM – Objection Listing) Objection02.Objection02: Authorization for listing objections made
y. (DAM – Objection Formation) Objection01.Objection01: Authorization for adding a new objection to "Matching and Objection" menu described at section 8.1.4

5.2. Determining Day Ahead Market User Limits at DGPYS screens

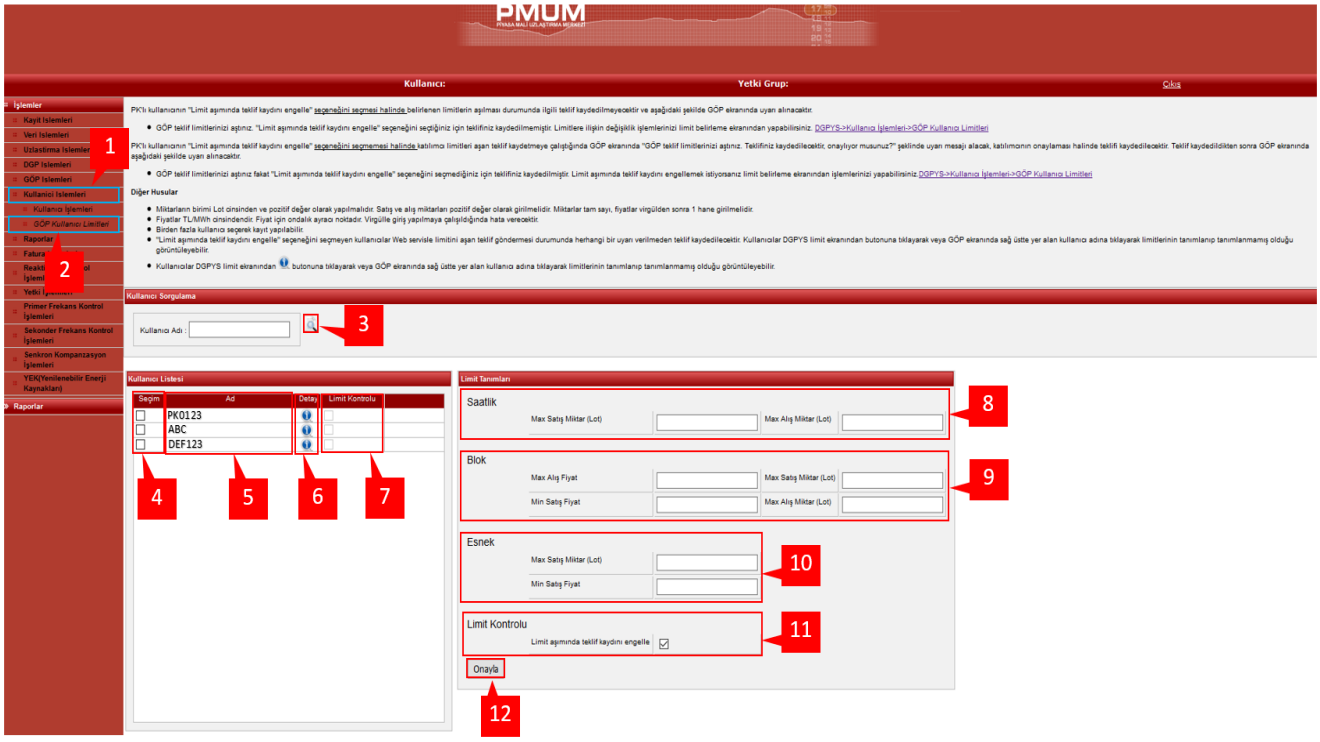


Figure 4: DAM Market User Limit Determination Page

Limit determination screen is developed in order to prevent users to enter erroneous orders to Day ahead Market. Limit determination operations can only be performed by users with ID having PK code. In case user with ID having PK code selects "Disable order submission in case of exceeding order limit" (11. Article) option, no order exceeding determined limits will be submitted. If this user does not select the option above and in case participant tries to submit an order exceeding determined limits, "DAM order limits are exceeded. Your order will be submitted, do you confirm?" warning message will appear at DAM screen. If participant agrees confirm then order will be submitted.

- During registration operation, updates only occurs at areas at which data entry is made and other areas remain with their previous values.

1. “User Operations”: “Click” on this button to view “DAM User Operations” menu.

2. “DAM User Operations”: “Click” on this button to view screen for updating user limits for Day ahead Market

3. Icon: “Click” on this icon to view users under the organization

4. Selection area: Listed users are selected in this area and Day ahead Market limits are determined for selected users. Limit determination and registration can be performed by selecting more than one user.

5. User names belonging to the organization are listed.

6. Button: “Click” on this button to view determined limits for a particular user.

7. This area shows option of “Disable order submission in case of exceeding order limits” for a particular user. If selected that particular user cannot submit an order exceeding limits and if not selected that particular user can submit such an order but receives a warning message.

8. Single Hourly Order limit definitions: In this area, maximum sales amount and maximum purchase amount for single hourly orders presented to Day Ahead Market are determined. Amounts are in terms of lots and must be an integer having a positive value (also applicable to sales amount)

9. Block orders limit areas: In this area maximum purchase amount, maximum purchase price, maximum sales amount, and minimum sales price for block orders presented to Day Ahead Market are determined. Amounts are in terms of lots and must be an integer having a positive value (also applicable to sales amount). Prices with 1 decimal point can be entered; dot represent decimal separator and error will be given in case comma is used as separator. Entered limit values must be positive (also applicable to sales amount)

10. Flexible order limit areas: In this area maximum purchase amount and minimum sales price for flexible orders presented to Day Ahead Market are determined. Amounts are in terms of lots and must be an integer having a positive value. Prices with 1 decimal point can be entered; dot represents decimal separator and error will be given in case comma is used as separator. Entered limit values must be positive (also applicable to sales amount)

11. In case users with ID having PK code selects “Disable order submission in case of exceeding limits” (11. Article), orders will not be submitted if they exceed determined limits. If this user does not select the option above and in case participant tries to submit an order exceeding determined limits, “DAM order limits are exceeded. Your order will be submitted, do you confirm?” warning message will appear at DAM screen. If participant agrees confirm then order will be submitted.

12. “Confirm”: “Click” on this button to register determined limits to system

Things need to be paid attention:

- Limit determination operations can only performed by users with ID having PK code.
- Amounts should be positive and in terms of lot. Amounts entered for sales side should also be positive in value.
- Price are in terms of TL/MWh
- Amounts should be integer and prices should be entered with 1 decimal point
- Dot represents decimal separator and error will be given in case comma is used as separator
- More than one user can be selected for registration
- "Click" on button to view limits determined for relevant users. In case no limit defined, values at pop-up screen appear as "0" (zero)

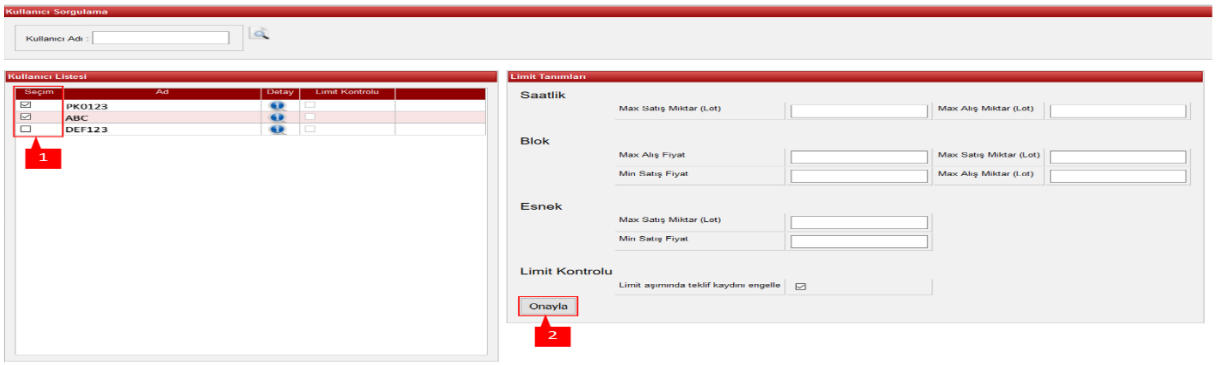


Figure 5: User Order Copy Page

1."Selection": In this area; if same limits, determined for some participants, are wanted to be assigned to other participants which no limit has been assigned, then selection boxes corresponding to a participant should be ticked.

2. "Confirm" button allows registration of limits to the system

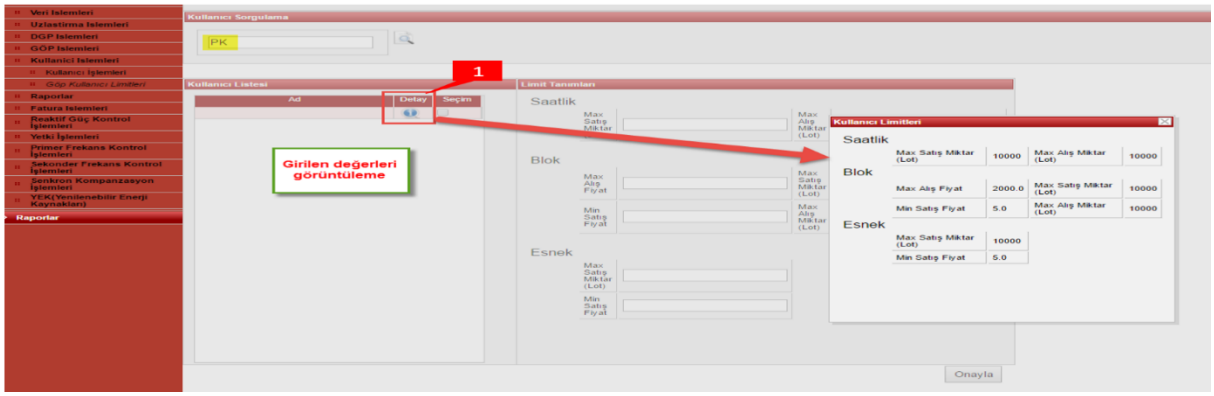


Figure 6: User Offer Limit Display Screen

1."Details": pop-up screen opens when clicking on icon. In pop-up screen limits of selected users are displayed

5.3. Communication Preferences

Figure 7: User Communication Preferences Screen

The listed and selected options in “İşlemler-Kullanıcı İşlemleri-Kullanıcı İletişim Tercihleri” section mean approved and communication will be through the selected options in this section.

6. SECTIONS

6.1. Homepage

Use https://goptest.epias.com.tr link to log in Day Ahead Market application by username and password. As entering registered username and unique password, SMS including password will be sent to participant to open homepage of Day Ahead Market application.

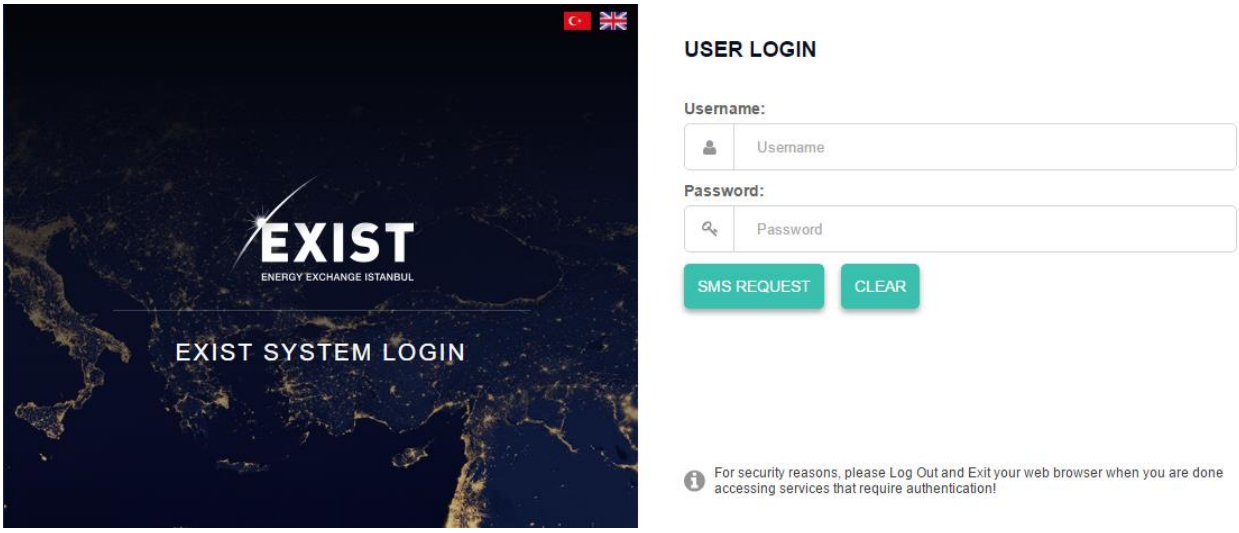


Figure 8: Day Ahead Market User Login Page

6.2. Homepage

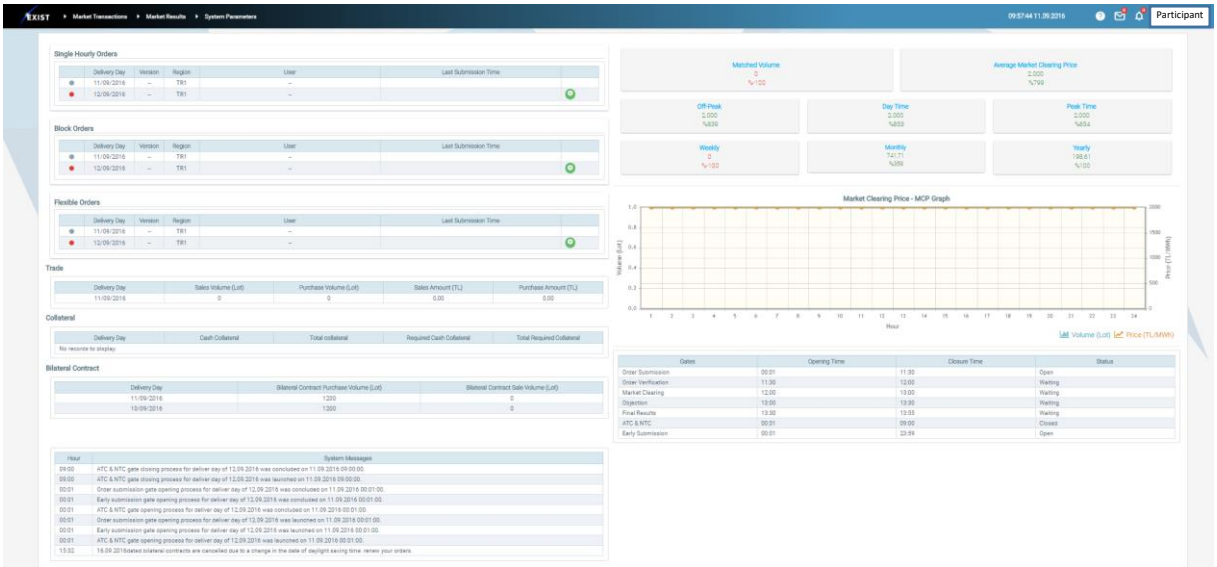


Figure 9: Homepage

Main page appears after connecting to the system. The details of main page will be explained in further sections.

6.2.1. Banner

Figure 10: Banner

The “Banner” will be available in every page that you open.

1. Company Logo: Appear in upper-left corner as abbreviation of Energy Exchange Istanbul. “Click” on logo to go to main page.

2. Bring mouse cursor on “Market Transactions” section to display “Order Options”, “Order Analysis”, “Order Display” and “Bilateral Contracts” tabs.

3. Bring mouse cursor on “Market Results” section to display “Results”, “Advance Operations”, “Collateral”, and “Net Position” tabs.

4. Bring mouse cursor on “System Parameters” section to display “Daylight Saving Time”, “Official Holidays”, “Exchange rate” and “Max/Min Prices” tabs.

5. System date and hour: Display Day Ahead Market’s system date and hour.

6. Help: “Click” on here to go to Day Ahead Market Web Application User Manual.

7. Messages: Display the messages being sent by system. Number of unread messages are shown as red.

8. Notification: Display the messages being sent by system or alerts with regard to gates opening/closing hours. Number of unread messages are shown as red.

9. “Click” on here to display “Transaction History” and “Log out” options. Moreover, the name user in system and its organization is displayed here.

a. Transaction history: The activities of a participant in system are listed here between selected dates.

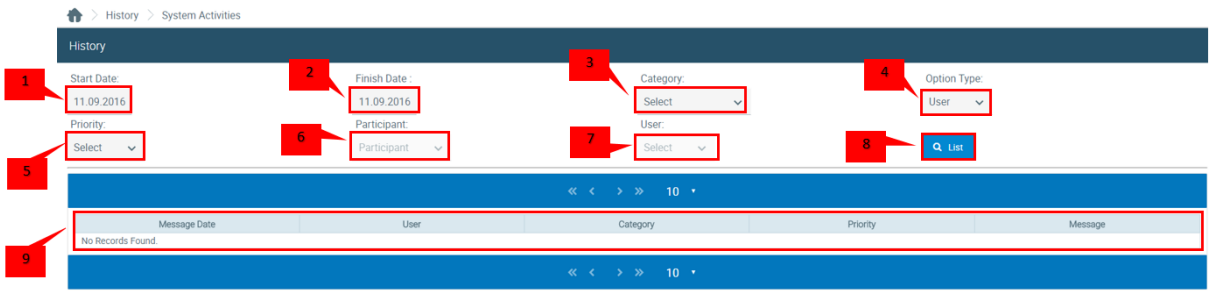


Figure 11: History

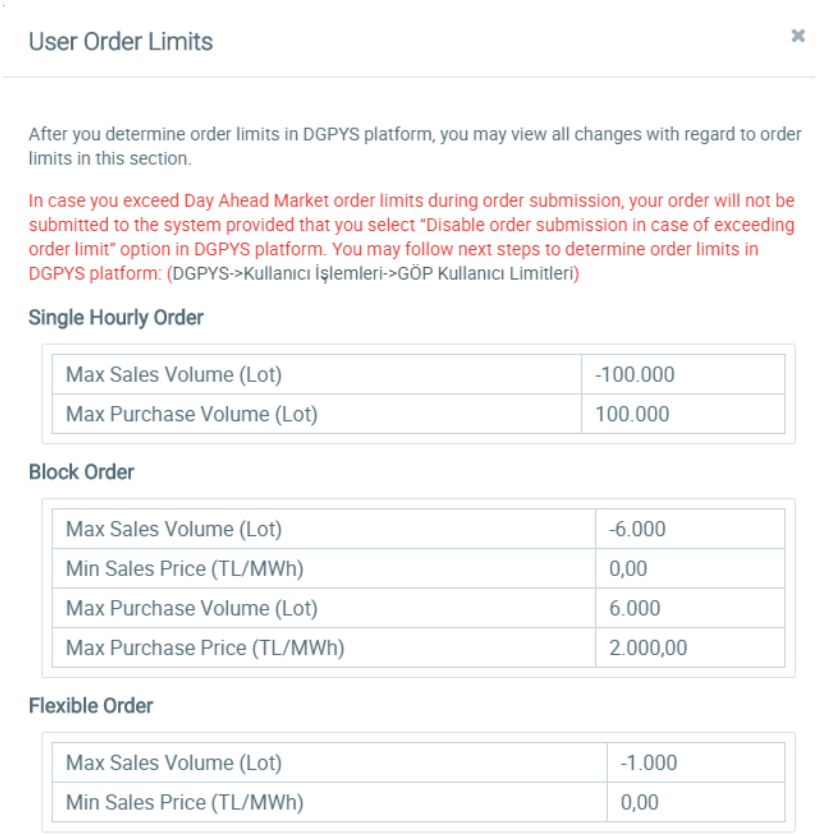
1- Start date: Choose starting day to filter date range that you want.
2- Finish date: Choose finish day to filter date range that you want
3- Category: The filter including “ATC” & “NTC”, “Block Order”, “Regional Results”, “Early Submission”, “Flexible Order”, “Matching and Objections”, “Market Clearing”, “Error Messages”, “Bilateral Contracts”, “Bilateral Contracts Processes”, “Bilateral Contracts Alert”, “Objection”, “User Activities”, “Final Result”, “Single Hourly Order”, “Order Submission”, “Order Verification”, “Order Display”, “Submit Order”, “Collateral Notification” sections.
4- Option Type: You can filter user and system activities in this section.
5- Priority: “Click” on here to choose information, alert and error messages.
6- Participant: Section to choose participant. It is inactive except for administrator.
7- User: You can filter different users of relevant legal entity in this section.
8- List: You can view all information in 9th section after you fill all required sections.
9- Information Section: You can list relevant information in this section through necessary filtering.

LOG CATEGORIES	CONTENT
Single Hourly Order	“Click” on Single Hourly Order option in select box to view user activities such as single hourly order creation, listing, history listing, and data error in cancellation processes.
Flexible Order	“Click” on Flexible Order option in select box to view user activities such as flexible order creation, listing, history listing, and data error in cancellation processes.
Block Order	“Click” on Block Order option in select box to view user activities such as block order creation, listing, history listing, and data error in cancellation processes.
Bilateral Contracts	“Click” on Bilateral Contracts option in select box to view user activities such as bilateral contract request, no bilateral contract authorization in sale side, no bilateral contract authorization in purchase side. Invalid counterparty code, bilateral contract gate is closed for delivery day of submitted order, you cannot have bilateral contract with your own side. Summer time clock shift day, Winter time clock shift day, no order given for a certain period. Any error occurrence during bilateral contracts alert process as well as opening and closing time of alert process.
Order Submission	“Click” on Order Submission option in select box to view user activities such as any error occurrence during order submission process as well as gate opening and closing time.
Order Verification	“Click” on Order Verification option in select box to view user activities such as any error occurrence during order confirmation process as well as gate opening and closing time.
Market Clearing	“Click” on Market Clearing option in select box to view user activities such as any error occurrence during price determination process as well as gate opening and closing time.
Objection	“Click” on Objection option in select box to view user activities such as any error occurrence during objection process as well as gate opening and closing time additionally for a new objection having been made or a reply to an objection having been made before.
Final Result	“Click” on Final Result option in select box to view user activities such as any error occurrence during final result process as well as gate opening and closing time.
ATC & NTC	“Click” on ATC & NTC option in select box to view user activities such as any error occurrence during ATC & NTC process as well as gate opening and closing time.
Bilateral Contract Alert	“Click” on Bilateral Contract Alert option in select box to view user activities such as log records of bilateral contract alert process.
Bilateral Contract Process	“Click” on Bilateral Contract Process option in select box to view user activities such as log records of bilateral contract process.
Early Submission	“Click” on Early Submission option in select box to view user activities such as any error occurrence during early declaration process as well as gate opening and closing time.
Collateral Notification	“Click” on Collateral Notification option in select box to view user activities such as cancellation of order in case of any error occurrence of inadequate collateral.

System Order Changes	"Click" on System Order Changes option in select box to view activity records of Market Transactions.
User Activities	"Click" on User Activities option in select box to view error messages while user log-in/off the system.
Error Messages	"Click" on Error Messages option in select box to view error messages in service segment.
Order Cancellation	"Click" on Order Cancellation option in select box to view user activities in any kind of cancellation such as any order cancellation, lack of participation agreement, inadequate collateral or the order cancellation of counterparty.
Submit Order	"Click" on Submit Order option in select box to view in case of the creation of any order in the system.
Matching and Objection	"Click" on Matching and Objection option in select box to view the records of matching and objections.
Order Display	"Click" on Order Display option in select box in case any kind of order is viewed by DAM System Administrator.
Regional Results	"Click" on Regional Results option in select box in case any kind of anything is viewed by DAM System Administrator in regional results section.

Figure 12: Log Categories

b. Limits: Display Day Ahead Market order limits for the participant who entered to system via DGPYS platform.


User Order Limits

After you determine order limits in DGPYS platform, you may view all changes with regard to order limits in this section.

In case you exceed Day Ahead Market order limits during order submission, your order will not be submitted to the system provided that you select "Disable order submission in case of exceeding order limit" option in DGPYS platform. You may follow next steps to determine order limits in DGPYS platform: (DGPYS->Kullanıcı İşlemleri->GÖP Kullanıcı Limitleri)

Single Hourly Order

Max Sales Volume (Lot)	-100.000
Max Purchase Volume (Lot)	100.000

Block Order

Max Sales Volume (Lot)	-6.000
Min Sales Price (TL/MWh)	0,00
Max Purchase Volume (Lot)	6.000
Max Purchase Price (TL/MWh)	2.000,00

Flexible Order

Max Sales Volume (Lot)	-1.000
Min Sales Price (TL/MWh)	0,00

Figure 13: Day Ahead Market Order Limits

c. Logout: "Click" on this button to exit from the system. Once you click on the logout button, system alerts the user as "Do you want to logout" with two options: "Yes" and "Cancel".
   - "Click" on "Yes" to exit from system.
   - "Click" on "Cancel" to continue activities in system.

6.2.2. Orders Section

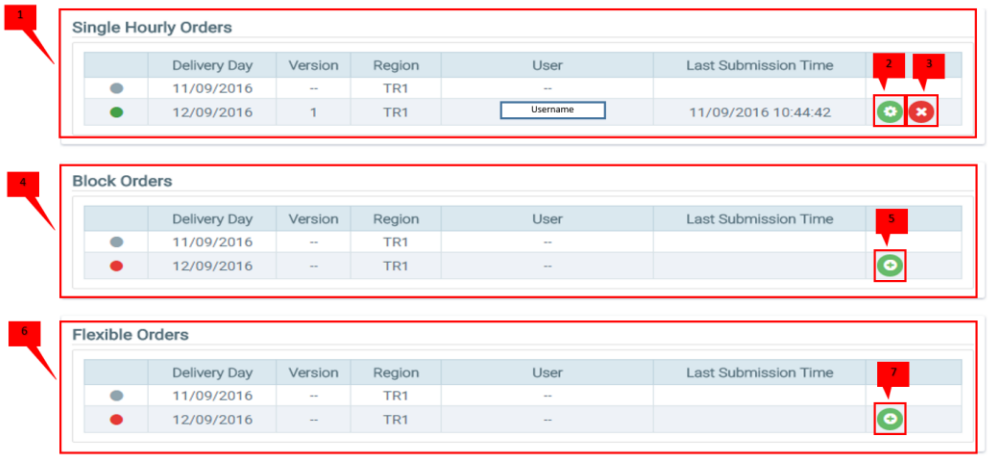


Figure 14: Orders Section

1. **Single Hourly Orders**: Located and opened as default once you go to the Order Options section. Here, you can find "Delivery day, Version, Region, Username, Last submission time" along with single hourly orders.
    a. Delivery day refers to order's delivery date and you can submit your single hourly order as long as order submission gate is open.

    b. The single hourly orders which belong to related Participation Agreement region are listed in a row. Since there is no area pricing, it is shown TR1 as default.

    c. You can view the order area, the last version of order, and the user who submitted the order and the submission time of order by using this section. The more you edit single hourly order, the newer version of order will be added to the system.

    d. There might be two signals in every row of order section. ● Mark indicates if there is a single hourly order in related delivery day, whereas ● mark indicates if there is no any single hourly order in relevant delivery day.

    e. "Click" on button to go to order submission section and "create" a single hourly order in relevant delivery day.
2. Edit single hourly order: Button that helps to direct to relevant page and edit the order.
3. Cancel single hourly order: Button that helps to cancel the submitted order. After canceling the order, "create" button will appear.
4. **Block order**: Located and opened as default once you go to the Order Options section. Here, you can find "Delivery day, Version, Region, Username, Last submission time" along with block orders.
    a. Delivery day refers to order's delivery date and you can submit your block order as long as order submission gate is open.
    b. The block orders which belong to related Participation Agreement region are listed as rows. Since there is no area pricing, it is shown TR1 as default.

c. You can view the order area, the last version of order, and the user who submitted the order and the submission time of order by using this section. The more you edit block order, the newer version of order will be added to the system.

d. There might be two signals in every row of order section. ● Mark indicates if there is a block order in relevant delivery day, whereas ● mark indicates if there is no any block order in relevant delivery day.

5. "Click" on button to be directed to order submission section and "create" a block order in relevant delivery day.

6. **Flexible order**: Located and opened as default once you go to the Order Options section. Here, you can find "Delivery day, Version, Region, Username, Last submission time" along with flexible orders.

   a. Delivery day refers to order's delivery date and you can submit your block order as long as order submission gate is open.

   b. The flexible orders which belong to related Participation Agreement region are listed as rows. Since there is no area pricing, it is shown TR1 as default.

   c. You can view the order area, the last version of order, and the user who submitted the order and the submission time of order by using this section. The more you edit flexible order, the newer version of order will be added to the system.

   d. There might be two signals in every row of order section. ● Mark indicates if there is a flexible order in relevant delivery day, whereas ● mark indicates if there is no any flexible order in relevant delivery day.

7. "Click" on button to go to order submission section and "create" a flexible order in relevant delivery day.

6.2.3. Trade and System Messages Page

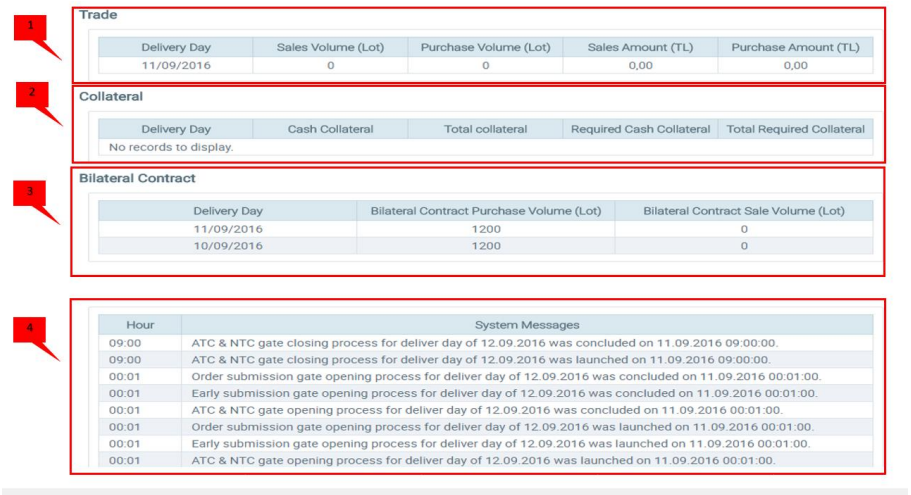


Figure 15: Trade and System Messages Section

1. Trade: You can view information about trade confirmations in relevant delivery day as;

-System sales volume (SSM),

-System purchase volume (SAM),

-System sales amount (SST)

-System purchase amount (SAT)

Volume unit is Lot, amount unit is TL.

2. Collateral: You can view information about collateral in relevant delivery day as;

-Cash collateral amount,

-Total collateral amount,

-Required collateral amount,

-Total required collateral amount.

Amount unit is TL.

3. Bilateral contracts: You can view information about trade confirmations in relevant delivery day as;

- Total bilateral contracts purchase volume,

- Total bilateral contracts sales volume.

Volume unit is Lot.

4. System messages: You can view messages being sent by Market Operator and system.

6.2.4. Market Clearing Price Change Rates Section

Figure 16: Market Clearing Price Averages

1. Average Market Clearing Price: You can view average Market Clearing Price in relevant delivery day. Moreover, it is possible to display change rate of last delivery day's average Market Clearing Price in comparison to previous delivery day's average Market Clearing Price. Please keep in mind that average Market Clearing Price unit is TL/MWh.

2. You can view average prices in night time (22:00-06:00), day time (06:00-17:00) and peak time (17:00-22:00). Additionally, it is possible to display change rate of last delivery day's prices in

comparison to previous delivery day's prices. Please keep in mind that the unit of these prices is TL/MWh.

3. You can view average Market Clearing Price of last 7 days, last 30 days and last 12 months. Furthermore, in sub-division of these average prices, you can find change rate of Market Clearing Price belonging to last 7 days, last 30 days and last 12 months.

6.2.5. Market Clearing Price and Market Clearing Volume Graph Section

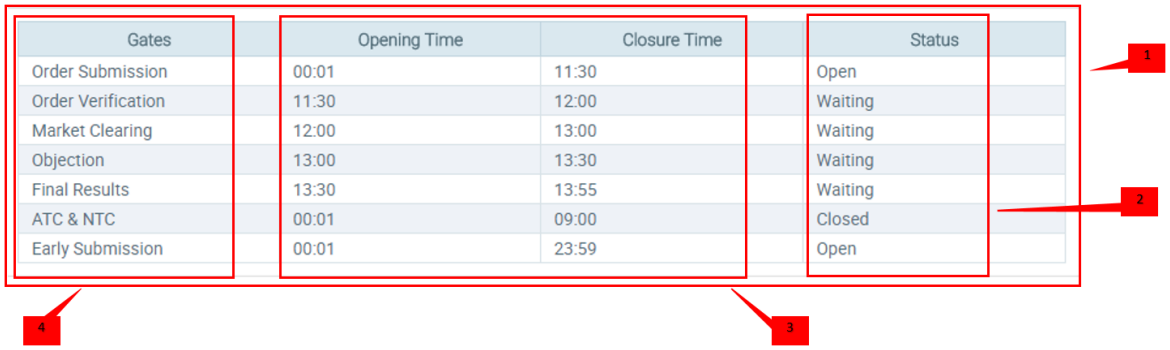
Figure 17: Market Clearing Price and Market Clearing Volume Graph

To display Market Clearing Price and Market Clearing Volume as a result of approved trades in last delivery day, use this section;

- In graph, amounts are given in each column. Unit of values is LOT.

- Market Clearing Price is given as a line. Unit of values is TL/MWh.

6.2.6. Gates



Gates	Opening Time	Closure Time	Status
Order Submission	00:01	11:30	Open
Order Verification	11:30	12:00	Waiting
Market Clearing	12:00	13:00	Waiting
Objection	13:00	13:30	Waiting
Final Results	13:30	13:55	Waiting
ATC & NTC	00:01	09:00	Closed
Early Submission	00:01	23:59	Open

Figure 18: Gates

1. Section that provides information about market processes, the opening/closing hours of gates and their status.

2. Section that displays the status of gates if open or/and close. In case relevant market process is active, the status will be revealed as "open". Unless market process is active, the status will be revealed

as “close”. In case the gate is ready to open for relevant delivery day, the status will be revealed as “on standby”.

3. Opening/closing hours of gates.

4. List of market processes

7. MARKET TRANSACTIONS

7.1. Order Options

7.1.1. Order Options homepage

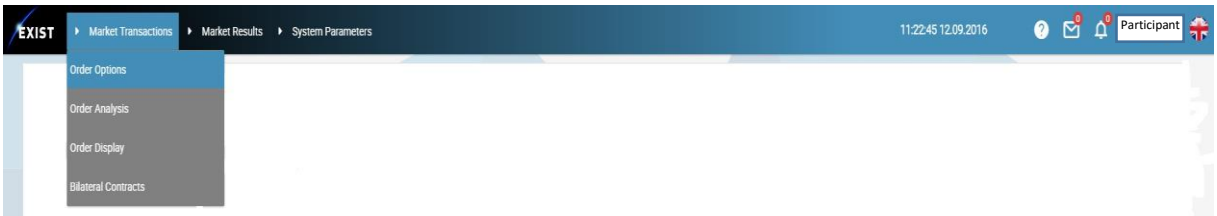


Figure 19: Order Options Tab

Bring mouse cursor on “Market Transactions” section to display tabs and go to “Order Options” page by one click.

7.1.1.1. Single Hourly Orders

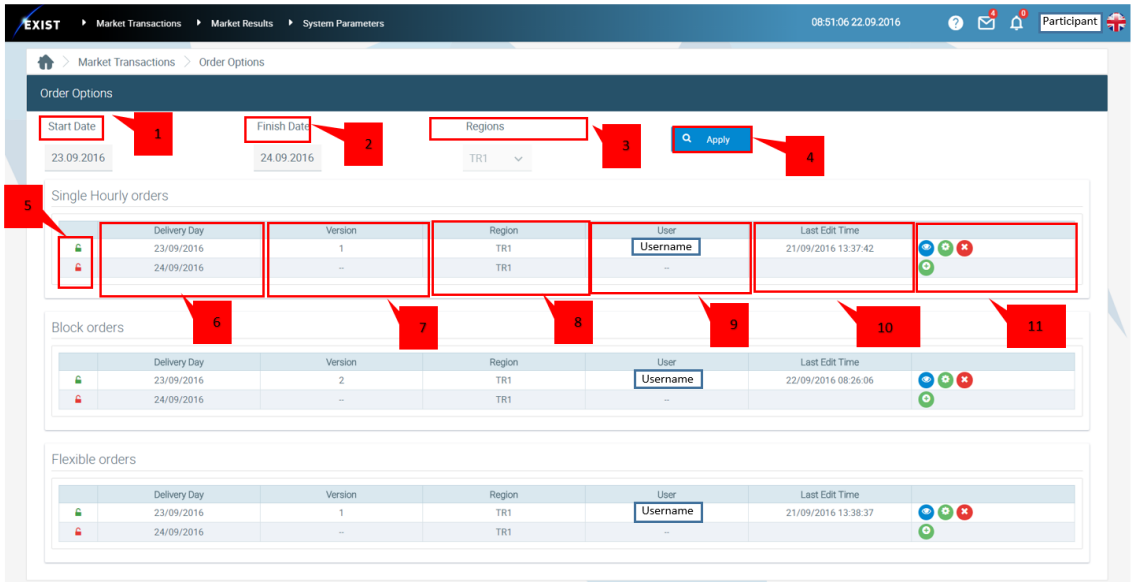


Figure 20: Order Options-Single Hourly Orders Section

1. Set “Start date” for the first day of date range.

2. Set “Finish date” for last day of date range. Please note that finish date can be selected until the last order submission of gate closure in relevant date range.

3. Region: In case of benefiting from multiple regions to trade, you can filter your transactions in accordance with the relevant regions. However, filter currently is unable due to existence of single region named (TR1).

4. Apply "Click" on "Apply" button to display single hourly orders, block orders and flexible orders which took place in selected dates.

5. Icon indicates if there is no any single hourly order in relevant delivery day, whereas icon indicates if there is a single hourly order in related delivery day.

6. Display the date of submitted single hourly order in relevant "Delivery day".

7. Display the last "Version" of submitted single hourly order in relevant delivery day.

8. Display the region that single hourly order belongs to relevant delivery day.

9. Display the username of authorized user who submitted single hourly order in relevant delivery day.

10. Display the last submission or edit time of single hourly order.

11. "Click" on button to go to order submission section and "create" a single hourly order in relevant delivery day. "Click" on button to redisplay the submitted singly hourly order. "Click" on button to change single hourly order and edit it. "Click" on button to cancel submitted single hourly order.

7.1.1.1.1. Single Hourly Order Homepage

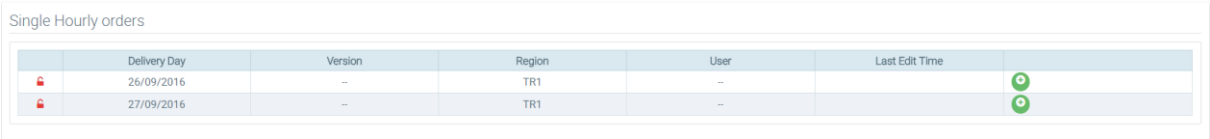


Figure 21: Single Hourly Order Homepage

To create a new single hourly order, "click" on button to open single hourly order homepage.

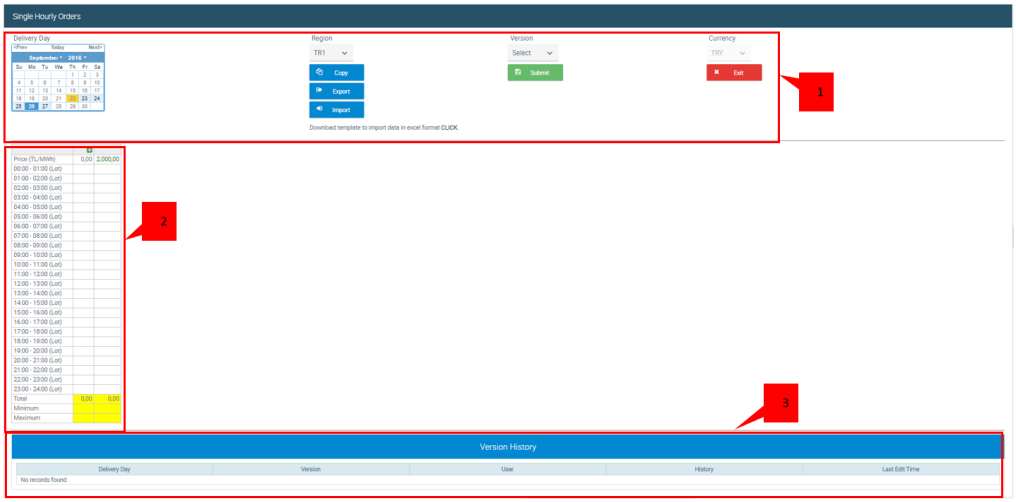


Figure 22: Single Hourly Order Entry Section

1. Section that displays the “Delivery day”, “Region”, “Currency”, “Copy”, “Export/Import data” and “Submit/Cancel” functions to create a new single hourly order.

2. Section that helps user to enter price and volume for a new single hourly order.

3. Version history: You can view information and the number of versions with regard to submitted single hourly orders in details.

7.1.1.1.2. New Single Hourly Order Entry

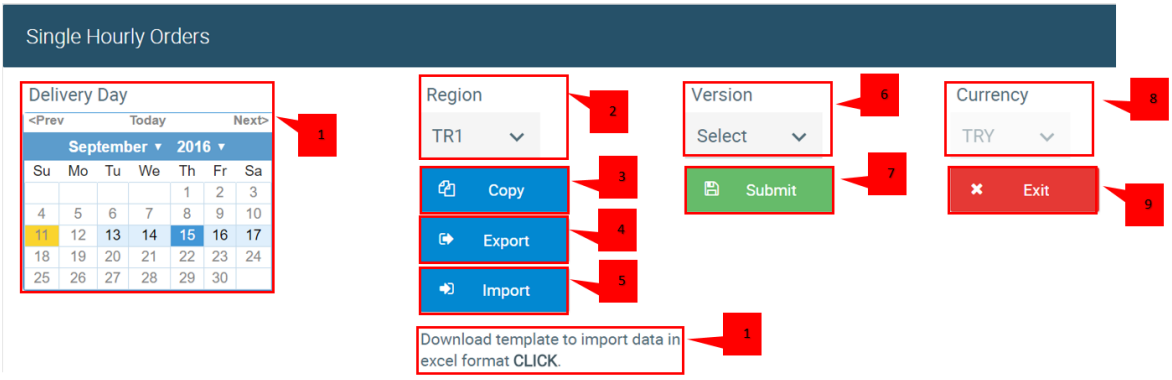


Figure 23: New Single Hourly Order Entry Section

1. Calendar: Set date(s) to submit single hourly order. You can make multiple choice in this section so that you can submit one single hourly order for multiple days at the same time.
2. Region: In case of benefiting from multiple regions to trade, you can filter your transactions in accordance with the relevant regions. However, filter currently is unable due to existence of single region named (TR1).

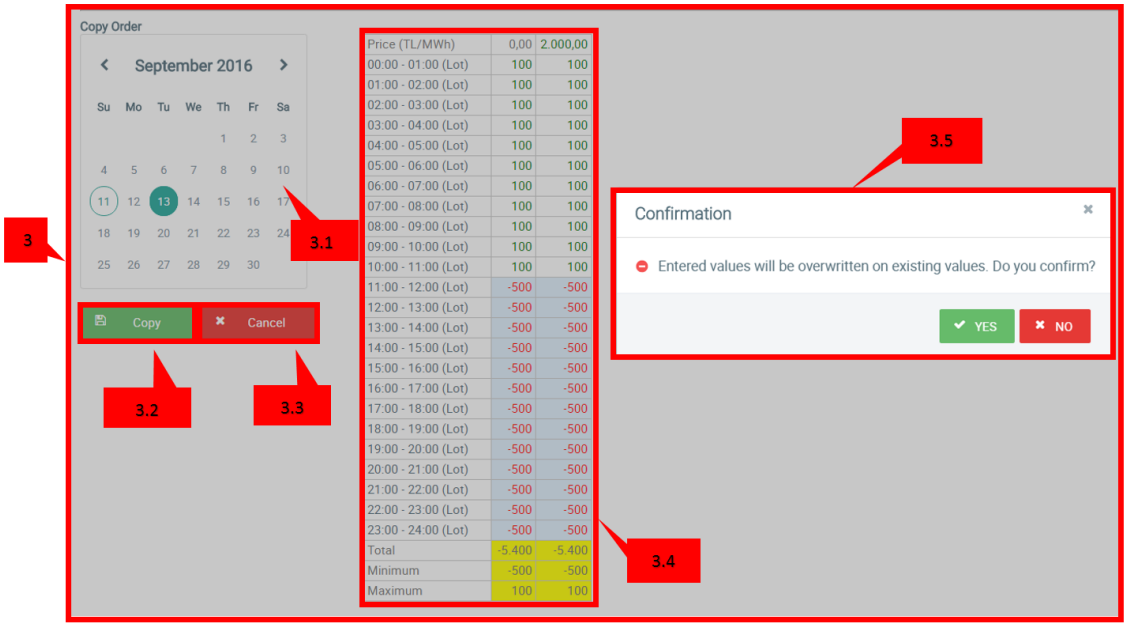


Figure 24: Single Hourly Order Copying Section

3. The new Web Application provides an opportunity to create a single hourly order for selected delivery day by copying price and volume data from a different delivery day's order. To do this transaction, you can first click on "copy" button and then pop-up will appear to copy order.
   3.1. Calendar: Select delivery day of new order.
   3.2. Copy button: "Click" on copy button after selecting the new delivery day to paste price and volume data of single hourly order from another delivery day.
   3.3. Cancel button: "Click" on cancel button to close pop-up.
   3.4. Details of order that you want to copy: Once you want to copy another delivery day's order, pop-up will appear in screen to display the details of that order.

   3.5. Alert message: If you created an order for selected delivery day before, you can still copy another delivery day's order values on it. To do this, proceed following steps; "click" on button to receive and alert message having two options, "yes" and "no". "Click" on button to edit your previous order with newly overwritten values on existing order. Otherwise, "click" on button to cancel your transaction. Once you "click" on button, "Single Hourly Order Entry" screen will be opened so that you can submit your order after updates. After you go to "Single Hourly Order Entry" page, "click" on to submit your copied order for a delivery day that you want.

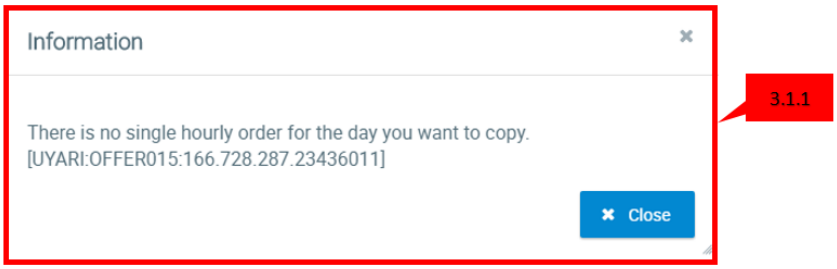


Figure 25: Information section for Single Hourly Order Copying

   3.1.1 Alert message: Unless you have an order for a delivery day to copy, "there is no submitted single hourly order for a delivery day to copy" alert message will appear on screen as you click on copy button.

4. Export: Export single hourly order as an excel file.
5. Import: "Click" on this button to open pop-up (Figure 25) and "click" on to browse file. Unless there is a problem in selected file, the order will be submitted automatically to system as a new version. Also, you can download order templates from system.

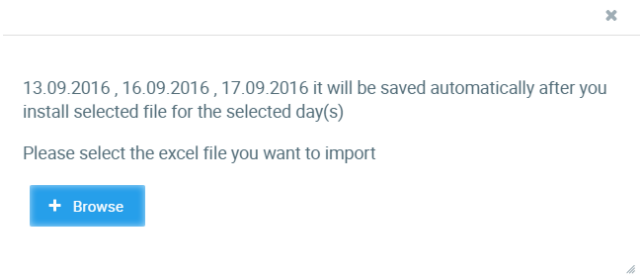
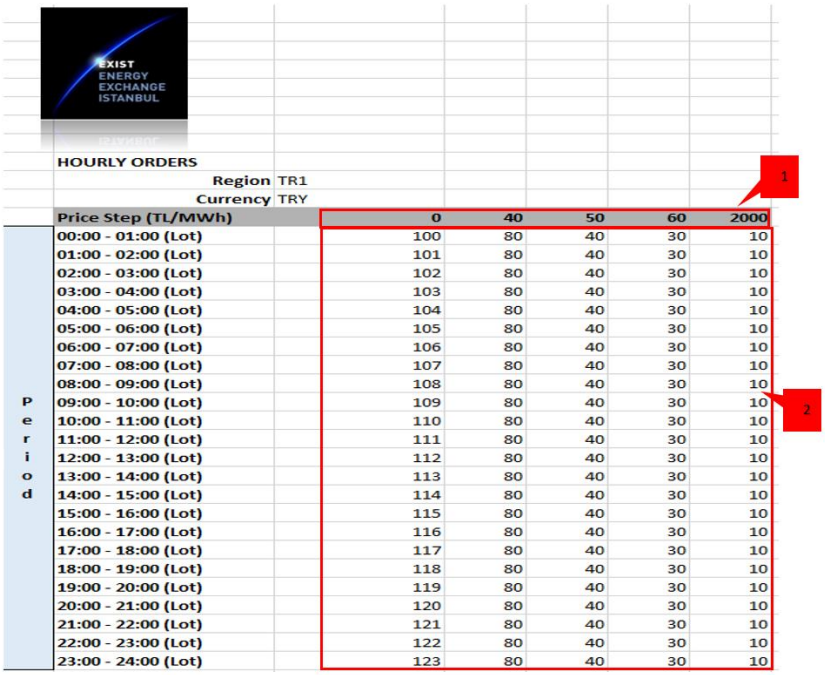


Figure 26: Import Pop-up Section

After copying the data prepared in Excel, you can use “Ctrl + v” shortcut to paste the data to single hourly order page. Please note that the number of copied price dependent order’s steps must be equal to number of available price dependent order’s steps on application in order to do transaction successfully. Thereafter, “click” on “submit” button to complete transaction.

6. Once you edit your order for same delivery day, it will be submitted to the system with a new version number. Please keep in mind that last version of your order will be taken into consideration for matching. You may view your all order versions through filtering option.
7. Submit : “Click” on here to submit the order that you create.
8. Display order at which currency that you can submit.
9. Exit : “Click” on here to cancel your changes on order prior to submit it.
10. You can download template excel file to enter price and volume data in accordance with template excel file and this file can be imported to system via “Import” button. Import button helps to upload data to single hourly order section.



HOURLY ORDERS

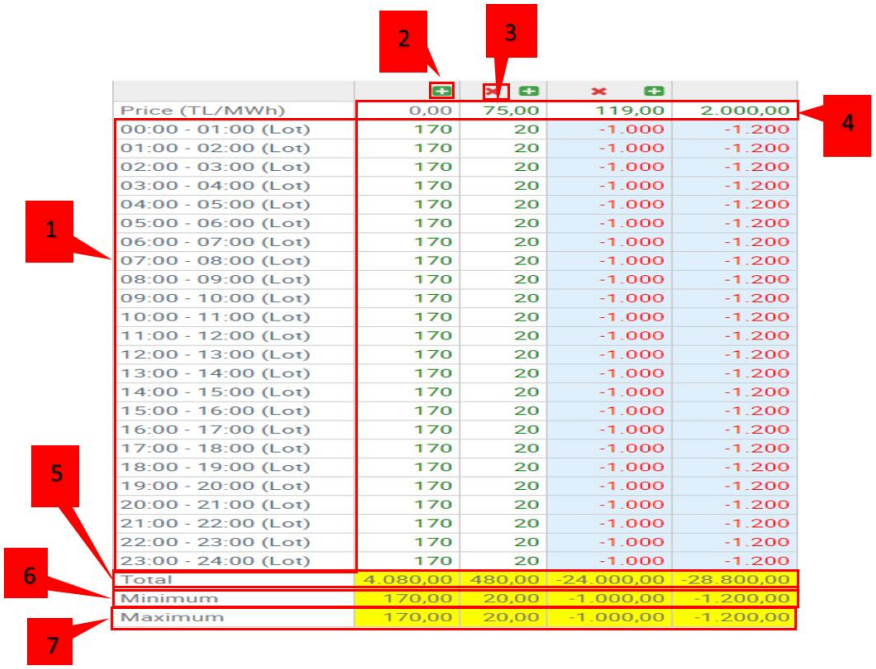
Region TR1

Currency TRY

Period	Price Step (TL/MWh)	0	40	50	60	2000
	00:00 - 01:00 (Lot)	100	80	40	30	10
	01:00 - 02:00 (Lot)	101	80	40	30	10
	02:00 - 03:00 (Lot)	102	80	40	30	10
	03:00 - 04:00 (Lot)	103	80	40	30	10
	04:00 - 05:00 (Lot)	104	80	40	30	10
	05:00 - 06:00 (Lot)	105	80	40	30	10
	06:00 - 07:00 (Lot)	106	80	40	30	10
	07:00 - 08:00 (Lot)	107	80	40	30	10
	08:00 - 09:00 (Lot)	108	80	40	30	10
	09:00 - 10:00 (Lot)	109	80	40	30	10
	10:00 - 11:00 (Lot)	110	80	40	30	10
	11:00 - 12:00 (Lot)	111	80	40	30	10
	12:00 - 13:00 (Lot)	112	80	40	30	10
	13:00 - 14:00 (Lot)	113	80	40	30	10
	14:00 - 15:00 (Lot)	114	80	40	30	10
	15:00 - 16:00 (Lot)	115	80	40	30	10
	16:00 - 17:00 (Lot)	116	80	40	30	10
	17:00 - 18:00 (Lot)	117	80	40	30	10
	18:00 - 19:00 (Lot)	118	80	40	30	10
	19:00 - 20:00 (Lot)	119	80	40	30	10
	20:00 - 21:00 (Lot)	120	80	40	30	10
	21:00 - 22:00 (Lot)	121	80	40	30	10
	22:00 - 23:00 (Lot)	122	80	40	30	10
	23:00 - 24:00 (Lot)	123	80	40	30	10

Figure 27: Single Hourly Order Excel Format

1. Display price steps of each single hourly order. To add/remove price step, you are supposed to use excel columns. The values must be added to price step cells.
2. Display Lot amounts corresponded to each price step. Unit of amounts is Lot.



Price (TL/MWh)	0,00	75,00	119,00	2.000,00
00:00 - 01:00 (Lot)	170	20	-1.000	-1.200
01:00 - 02:00 (Lot)	170	20	-1.000	-1.200
02:00 - 03:00 (Lot)	170	20	-1.000	-1.200
03:00 - 04:00 (Lot)	170	20	-1.000	-1.200
04:00 - 05:00 (Lot)	170	20	-1.000	-1.200
05:00 - 06:00 (Lot)	170	20	-1.000	-1.200
06:00 - 07:00 (Lot)	170	20	-1.000	-1.200
07:00 - 08:00 (Lot)	170	20	-1.000	-1.200
08:00 - 09:00 (Lot)	170	20	-1.000	-1.200
09:00 - 10:00 (Lot)	170	20	-1.000	-1.200
10:00 - 11:00 (Lot)	170	20	-1.000	-1.200
11:00 - 12:00 (Lot)	170	20	-1.000	-1.200
12:00 - 13:00 (Lot)	170	20	-1.000	-1.200
13:00 - 14:00 (Lot)	170	20	-1.000	-1.200
14:00 - 15:00 (Lot)	170	20	-1.000	-1.200
15:00 - 16:00 (Lot)	170	20	-1.000	-1.200
16:00 - 17:00 (Lot)	170	20	-1.000	-1.200
17:00 - 18:00 (Lot)	170	20	-1.000	-1.200
18:00 - 19:00 (Lot)	170	20	-1.000	-1.200
19:00 - 20:00 (Lot)	170	20	-1.000	-1.200
20:00 - 21:00 (Lot)	170	20	-1.000	-1.200
21:00 - 22:00 (Lot)	170	20	-1.000	-1.200
22:00 - 23:00 (Lot)	170	20	-1.000	-1.200
23:00 - 24:00 (Lot)	170	20	-1.000	-1.200
Total	4.080,00	480,00	-24.000,00	-28.800,00
Minimum	170,00	20,00	-1.000,00	-1.200,00
Maximum	170,00	20,00	-1.000,00	-1.200,00

Figure 28: Single Hourly Order Example

1. Display the range of hours in a column.

2. Add a new price step while creating a single hourly order.

3. Delete added price step.

4. Display the created price steps.

5. Display the total Lot amounts for each price step.

6. Display the minimum Lot amount for all daily price steps.

7. Display the maximum Lot amount for all daily price steps.

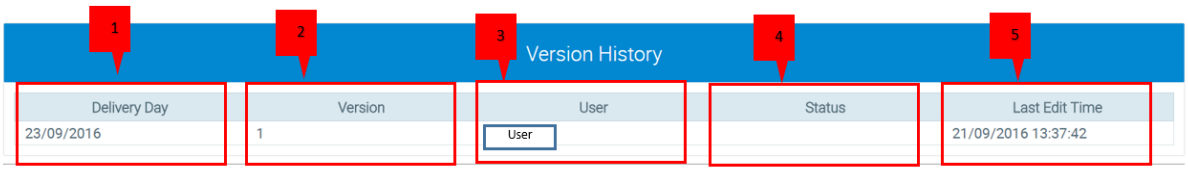


Figure 29: Single Hourly Order Version History

The version history indicates the details of all created single hourly orders for same delivery day.

1. Delivery day: Display the delivery day of single hourly order's last version.

2. Version: Display the version of single hourly orders after updates.

3. User: Display the name of user.

4. History: Display information about order status whether it is valid, submitted or cancelled.

5. Last Edit Time: Display the submission time of relevant version.

7.1.1.2. Block Orders

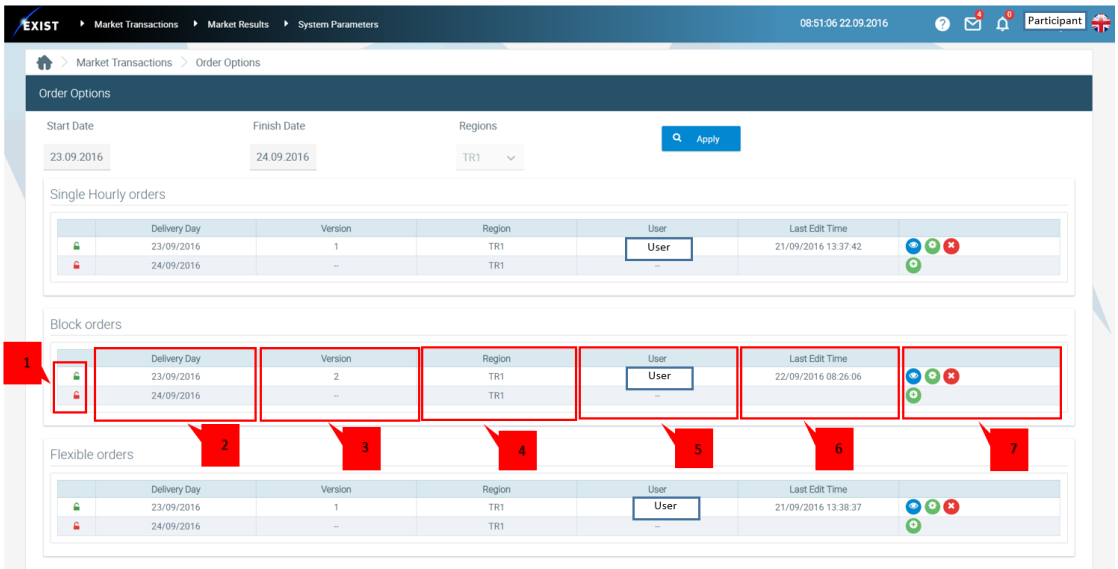


Figure 30: Order Options-Block Order Section

1. Icon indicates if there is no any block order in relevant delivery day, whereas mark indicates if there is a block order in related delivery day.

2. Delivery day: Display the date of submitted block order in relevant "Delivery day".

3. Version: Display the last "Version" of submitted block order in relevant delivery day.
4. Region: In case of benefiting from multiple regions to trade, you can filter your transactions in accordance with the relevant regions. However, filter currently is unable due to existence of single region named (TR1).

5. User: Display the username of authorized user who submitted block order in relevant delivery day.

6. Last change time: Display the last submission or edit time of block order.

7. "Click" on button to go to order submission section and "create" a block order in relevant delivery day. "Click" on button to redisplay the submitted block order. "Click" on button to change block order and edit it. "Click" on button to cancel submitted block order.

7.1.1.2.1. Block Order Homepage

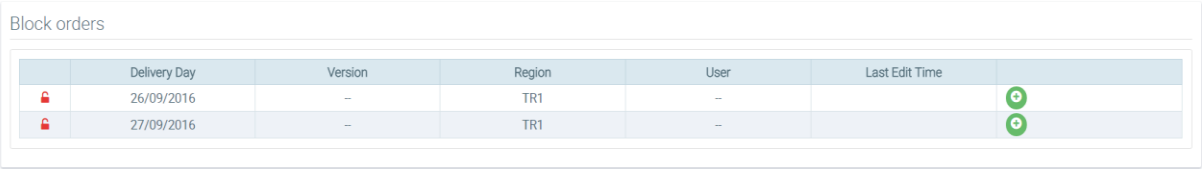


Figure 31: Block Order Entry Section

To create a new block order, "click" on button to open block order homepage.

7.1.1.2.2 New Block Order Entry

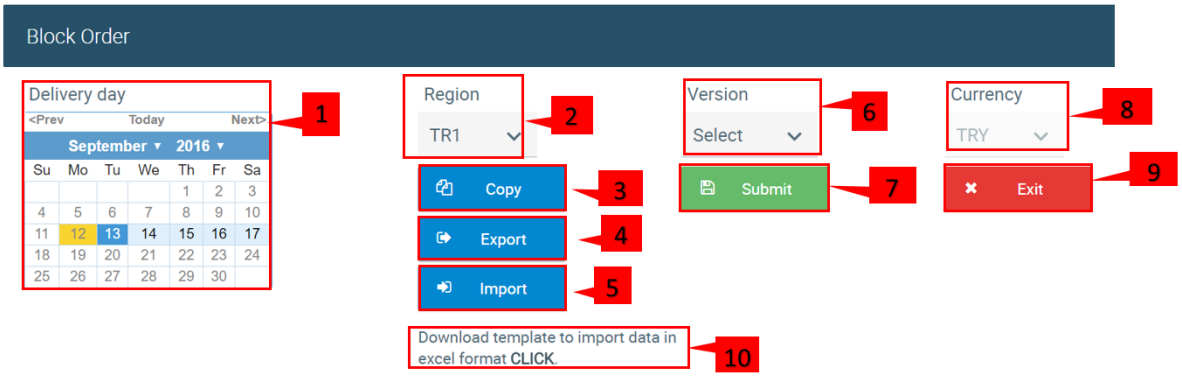


Figure 32: New Block Order Entry

1. Calendar: Set date(s) to submit block order. You can make multiple choice in this section so that you can submit one block order for multiple days at the same time.
2. Region: In case of benefiting from multiple regions to trade, you can filter your transactions in accordance with the relevant regions. However, filter currently is unable due to existence of single region named (TR1).

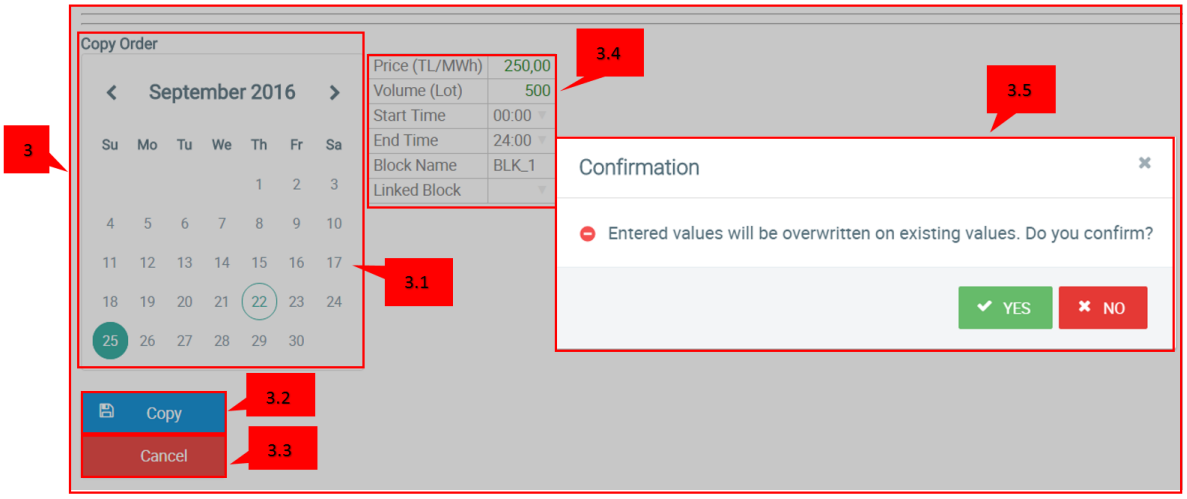
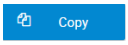


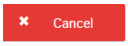
Figure 33: Block Order Copying Section

3. The new Web Application provides an opportunity to create a block order for selected delivery day by copying price and volume data from a different delivery day's order. To do this transaction, you can first click on "copy" button and then pop-up will appear to copy order.

3.1. Calendar: Select delivery day of new order.

3.2. 

Copy button: "Click" on copy button after selecting the new delivery day to paste price and volume data of block order from another delivery day.

3.3. 

Cancel button: "Click" on cancel button to close pop-up.

3.4. Details of order that you want to copy: Once you want to copy another delivery day's order, pop-up will appear in screen to display the details of that order.

3.5. Alert message: If you created an order for selected delivery day before, you can still copy another delivery day's order values on it. To do this, proceed following steps; "click" on Copy button to receive and alert message with two options, "yes" and "no". "Click" on YES button to edit your previous order with new copied order's values. Otherwise, "click" on NO button to cancel your transaction. Once you "click" on YES button, "Block Order Entry" screen will be opened so that you can submit your order after updates. After you go to "Block Order Entry" page, "click" on Submit to submit your copied order for a delivery day that you want.

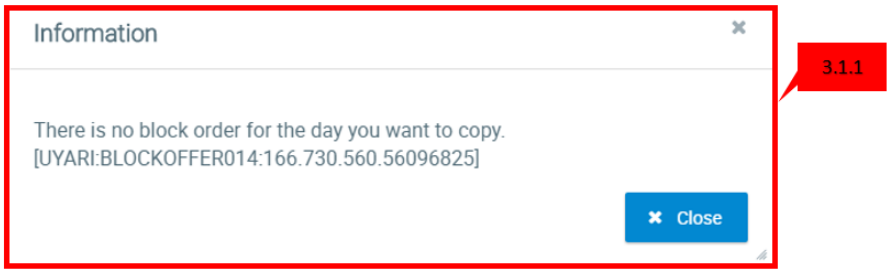


Figure 34: Information Section for Block Order Copying

3.1.1. Alert message: Unless you have an order for a delivery day to copy, "there is no submitted single hourly order for a delivery day to copy" alert message will appear on screen as you click on copy button.

4. Export Export: Export block order as an excel file.
5. Import Import: "Click" on this button to open pop-up (Figure 35) and "click" on Browse to browse file. Unless there is a problem in selected file, the order will be submitted automatically to system as a new version. Also, you can download order templates from system.

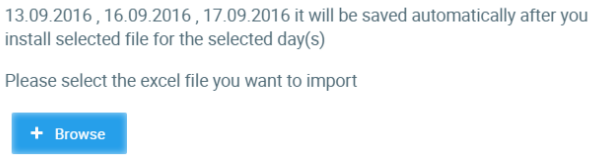


Figure 35: Import Pop-up Block Order Section

After copying the data prepared in Excel, you can use "Ctrl + v" shortcut to paste the data to block order page. Please note that the number of copied price dependent order's steps must be equal to number of available price dependent order's steps on application in order to do transaction successfully. Thereafter, "click" on "submit" button to complete transaction.

6. Once you edit your order for same delivery day, it will be submitted to the system with a new version number. Please keep in mind that last version of your order will be taken into consideration for matching. You may view your all order versions through filtering option.
7. Submit Submit: "Click" on here to submit the order that you create.
8. Display order at which currency that you can submit.
9. Cancel Cancel: "Click" on here to cancel your changes on order prior to submit it.
10. You can download template excel file to enter price and volume data in accordance with template excel file and this file can be imported to system via "Import" button. Import button helps to upload data to block order section.

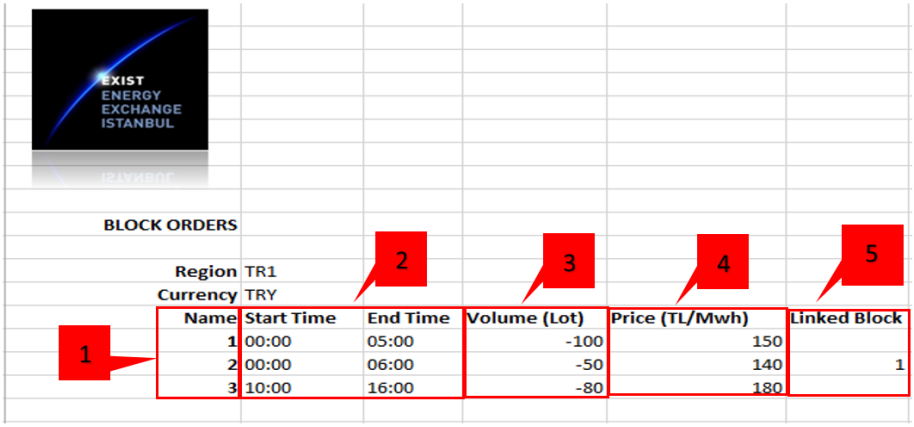


Figure 36: Block Order Excel Format

1. Display the name of submitted block order.
2. Enter start/end hours of block order.
3. Enter the volume of block order. Volume unit is Lot.
4. Display the price of submitted block order. Price unit is TL/MWh.
5. Enter the name of linked block order.

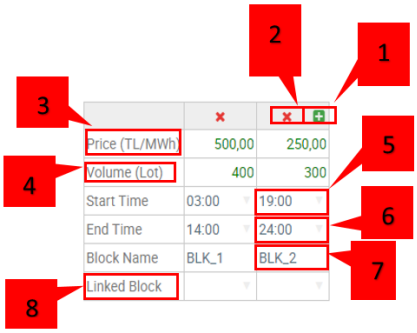


Figure 37: Block Order Example

1. Create new block order.

2. Delete created block order

3. Determine price of block order. (TL/MWh)

4. Enter "–"for sales and enter "only" positive value for purchase. Unit of volume is Lot.

5. Display the start hour of block order.

6. Display the end hour of block order.

7. Display the name of block order.

8. Link block orders at most three of them.

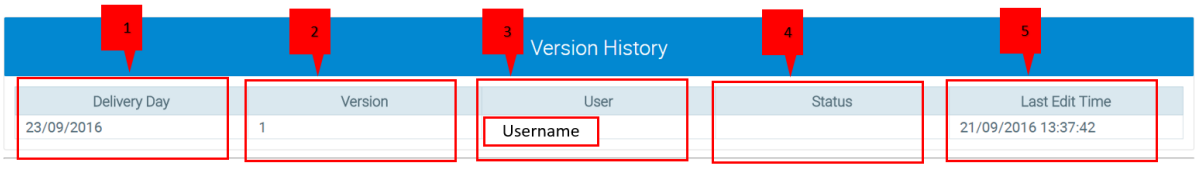


Figure 38: Block Order Version History

The version history indicates the details of all created block orders for the same delivery day.

1. Delivery day: Display the delivery day of block order's last version.

2. Version: Display the version of block orders after updates.

3. User: Display the name of user.

4. History: Display information about order status whether it is valid, submitted or cancelled.

5. Last Edit Time: Display the last submission time of relevant version.

7.1.1.3. Flexible Orders

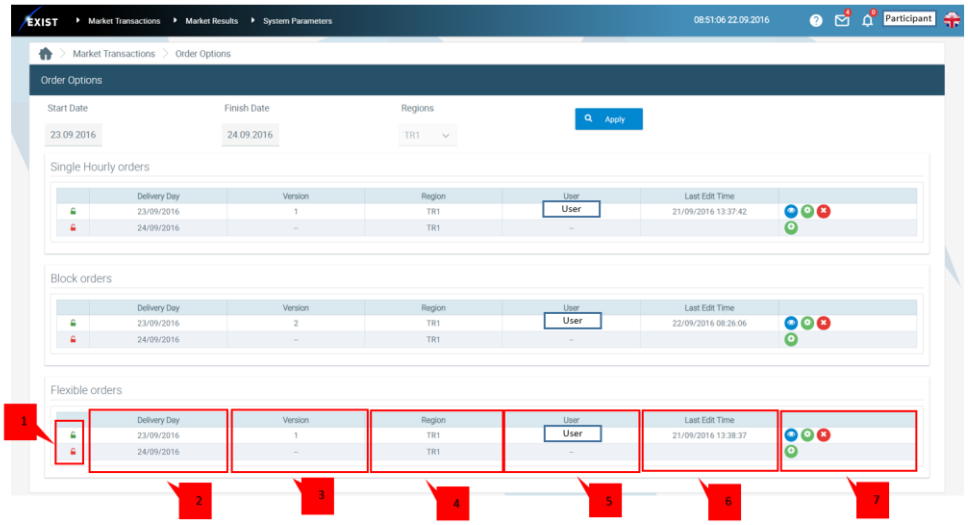


Figure 39: Order Options-Flexible Order Section

1. Icon indicates if there is no any flexible order in relevant delivery day, whereas mark indicates if there is a flexible order in related delivery day.

2. Delivery day: Display the date of submitted flexible order in relevant "Delivery day".

3. Version: Display the last "Version" of submitted flexible order in relevant delivery day.

4. Region: In case of benefiting from multiple regions to trade, you can filter your transactions in accordance with the relevant regions. However, filter currently is unable due to existence of single region named (TR1).

5. User: Display the username of authorized user who submitted single flexible order in relevant delivery day.

6. Last change time: Display the last submission or edit time of flexible order.

7. “Click” on button to go to order submission section and “create” a flexible order in relevant delivery day. “Click” on button to redisplay the submitted flexible order. “Click” on button to change flexible order and update it. “Click” on button to cancel submitted flexible order.

7.1.1.3.1. Flexible Order Homepage

Figure 40: Flexible Order Homepage

To create a new flexible order, “click” on button to open flexible order homepage.

7.1.1.3.2. New Flexible Order Entry

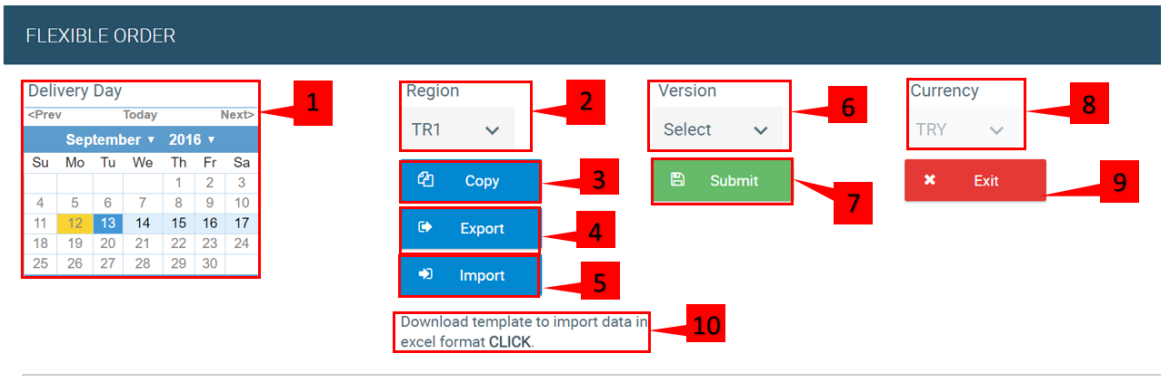


Figure 41: New Flexible Order Entry

1. Calendar: Set date(s) to submit flexible order. You can make multiple choice in this section so that you can submit one flexible order for multiple days at the same time.
2. Region: In case of benefiting from multiple regions to trade, you can filter your transactions in accordance with the relevant regions. However, filter currently is unable due to existence of single region named (TR1).

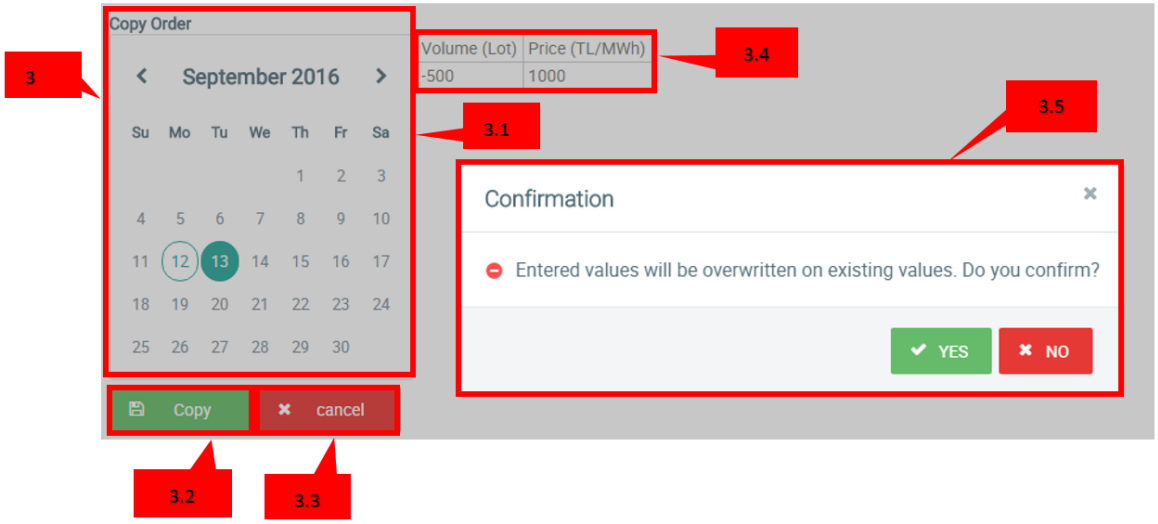


Figure 42: Flexible Order Copying Section

3. The new Web Application provides an opportunity to create a block order for selected delivery day by copying price and volume data from a different delivery day's order. To do this transaction, you can first click on "copy" button and then pop-up will appear to copy order.

3.1. Calendar: Select delivery day of new order.

3.2. Copy button: "Click" on copy button after selecting the new delivery day to paste price and volume data of flexible order from another delivery day.

3.3. Cancel button: "Click" on cancel button to close pop-up.

3.4. Details of order that you want to copy: Once you want to copy another delivery day's order, pop-up will appear in screen to display the details of that order.

3.5. Alert message: If you created an order for selected delivery day before, you can still copy another delivery day's order values on it. To do this, proceed following steps; "click" on Copy button to receive and alert message with two options, "yes" and "no". "Click" on YES button to edit your previous order with new copied order's values. Otherwise, "click" on NO button to cancel your transaction. Once you "click" on YES button, "Flexible Order Entry" screen will be opened so that you can submit your order after updates. After you go to "Flexible Order Entry" page, "click" on Submit to submit your copied order for a delivery day that you want.

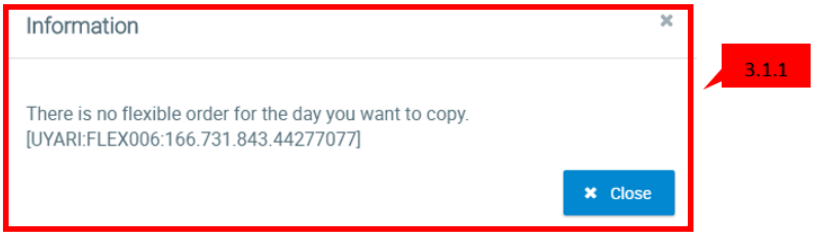


Figure 43: Information section for Flexible Order Copying

3.1.1. Alert message: Unless you have an order for a delivery day to copy, “there is no submitted single hourly order for a delivery day to copy” alert message will appear on screen as you click on copy button.

4. Export: Export flexible order as an excel file.
5. Import: “Click” on this button to open pop-up and browse file. Unless there is a problem in selected delivery day(s), the order will be submitted automatically to system as a new version. Also, you can download order templates from system. Thereafter, “click” on “submit” button to complete transaction.
6. Once you edit your order for same delivery day, it will be submitted to the system with a new version number. Please keep in mind that last version of your order will be taken into consideration for matching. You may view your all order versions through filtering option.
7. Submit : “Click” on here to submit the order that you create.
8. Display order at which currency that you can submit.
9. Cancel : “Click” on here to cancel your changes on order prior to submit it.
10. You can download template excel file to enter price and volume data in accordance with template excel file and this file can be imported to system via “Import” button. Import button helps to upload data to flexible order section.

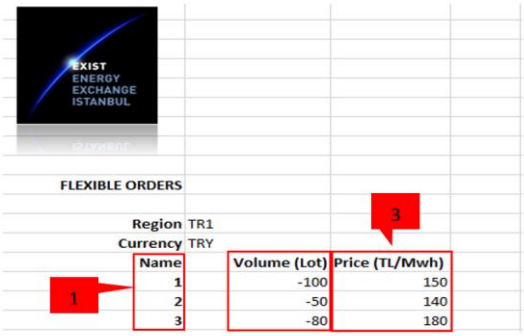


Figure 44: Flexible Order Excel Format

1. Display the name of submitted flexible order.
2. Display the volume of flexible order. Volume unit is Lot
3. Display the price of submitted flexible order. Price unit is TL/MWh

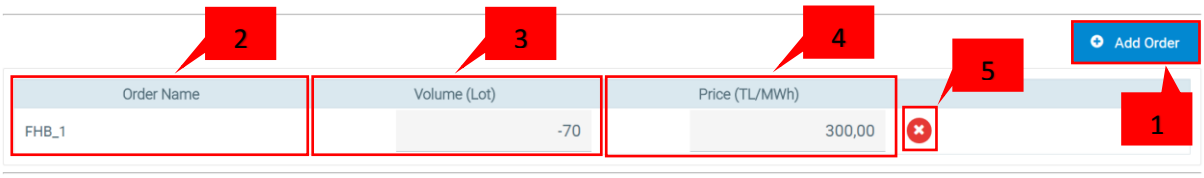


Figure 45: Flexible Order Entry

1. Add required row to create a flexible order.

2. Display the name of flexible order.

3. Since flexible order can only be created for sales, the number will be shown as a negative value automatically. The unit of flexible order volume is LOT

4. Enter the price of created flexible order.

5. Cancel flexible order without submission.

Figure 46: Flexible Order Version History

The version history indicates the details of all created flexible orders for the same delivery day.

1. Delivery day: Display the delivery day of block order's last version.

2. Version: Display the version of block orders after updates.

3. User: Display the name of user.

4. History: Display information about order status whether it is valid, submitted or cancelled.

5. Last Edit Time: Display the submission time of relevant version.

7.2. Order Analysis

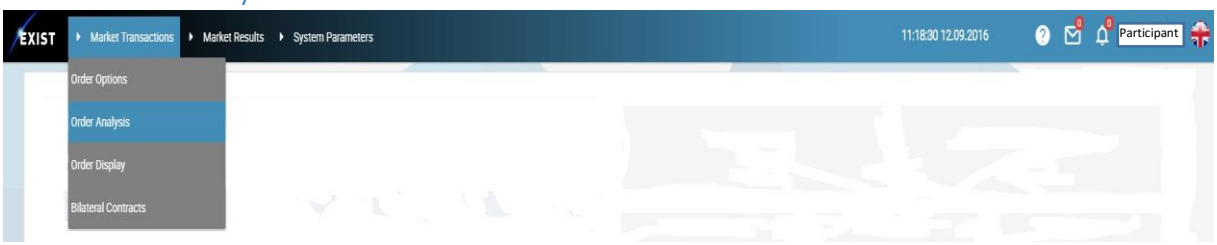


Figure 47: Order Analysis Tab

Bring mouse cursor on "Market Transactions" section to display tabs and go to "Order Analysis" page by one click. You may conduct an analysis on order type that you choose in this section.

7.2.1 Single Hourly Order Analysis

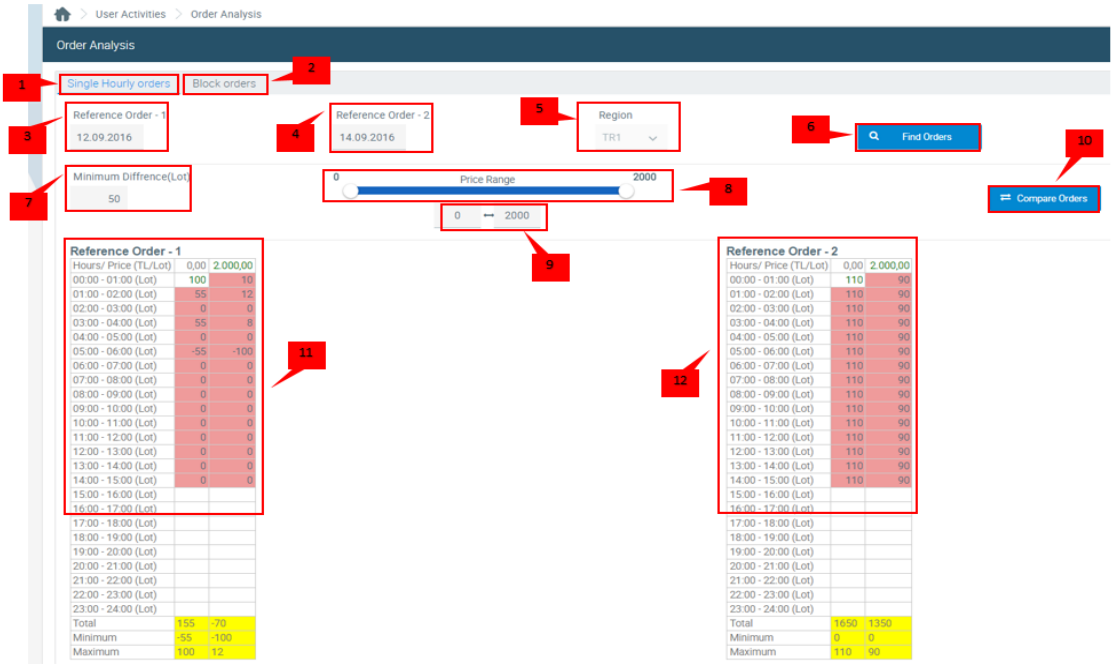


Figure 48: Single Hourly Order Analysis Section

To find out whether there is a mistake in submitted new order or not, you can compare your new and previous orders to make required changes if needed. Please keep in mind that single hourly order and block order analyses pages have tabs in Order Analysis section to go to whichever analysis page directly that you want. In this section, single hourly order analysis steps will be explained. Please make sure that single hourly orders tab has “blue” signal which means you are in single hourly order analysis page.

1. Single hourly orders tab: “Click” on here to analyze single hourly orders.

2. Block orders tab: “Click” on here to analyze block orders.

3. Choose a date for Reference single hourly order-1 to compare with another single hourly order.

4. Choose a date for Reference single hourly order-2 to compare with reference order.

5. Display the regions of preferred single hourly orders to compare. Please make sure that the regions of preferred single hourly orders to compare must be same. As such, the orders in different regions are incomparable.

6. After entering the “Reference Single Hourly Order-1, Reference Single Hourly Order-2 and Region”, “click” on Find Orders button. Once you click on “Find Orders” button, you will be able to view the orders together with information about price range and Min.Difference (Lot) for selected dates.

7. To compare two orders in different delivery days, you can set a minimum value in this box and you can view volume differences for each hour over the value you set.

- Volume unit is Lot.

- Shading will be applied to the relevant cells in accordance with minimum difference criterion.

8. Price Range: Choose the price level range for order comparison. Prices must be in terms of TL/MWh

9. Price Range: Choose the price level range for order comparison. You can make manual setting. Prices must be in terms of TL/MWh.

10. Enter “price range” and quantity of “minimum difference”, then click on Compare Orders button to view and compare the orders in accordance with the input given.

11. Click on Compare Orders button and view the Reference single hourly order-1. The price range of reference order is setting according to entering price value. If the price range of reference order does not include the price range of order comparison, linear interpolation will be applied. After applying linear interpolation, you can view the new price level and volume. Moreover, the level of reference order-1 and reference order-2 will be same. All volumes are in terms of Lot and all prices are in terms of TL/MWh. After entering the data, difference of volumes is shaded.

12. Click on Compare Orders button and view the reference single hourly order-1. The price range of reference-2 order is set according to entering price value. If the price range of order comparison does not include the price range of reference order, linear interpolation will be applied. After applying linear interpolation, you can view the new price level and volume. Moreover, the level of reference order-1 and reference order-2 will be same. All volumes are in terms of Lot and all prices are in terms of TL/MWh. After entering the data, difference of volumes is shaded.

7.2.2. Block Order Analysis

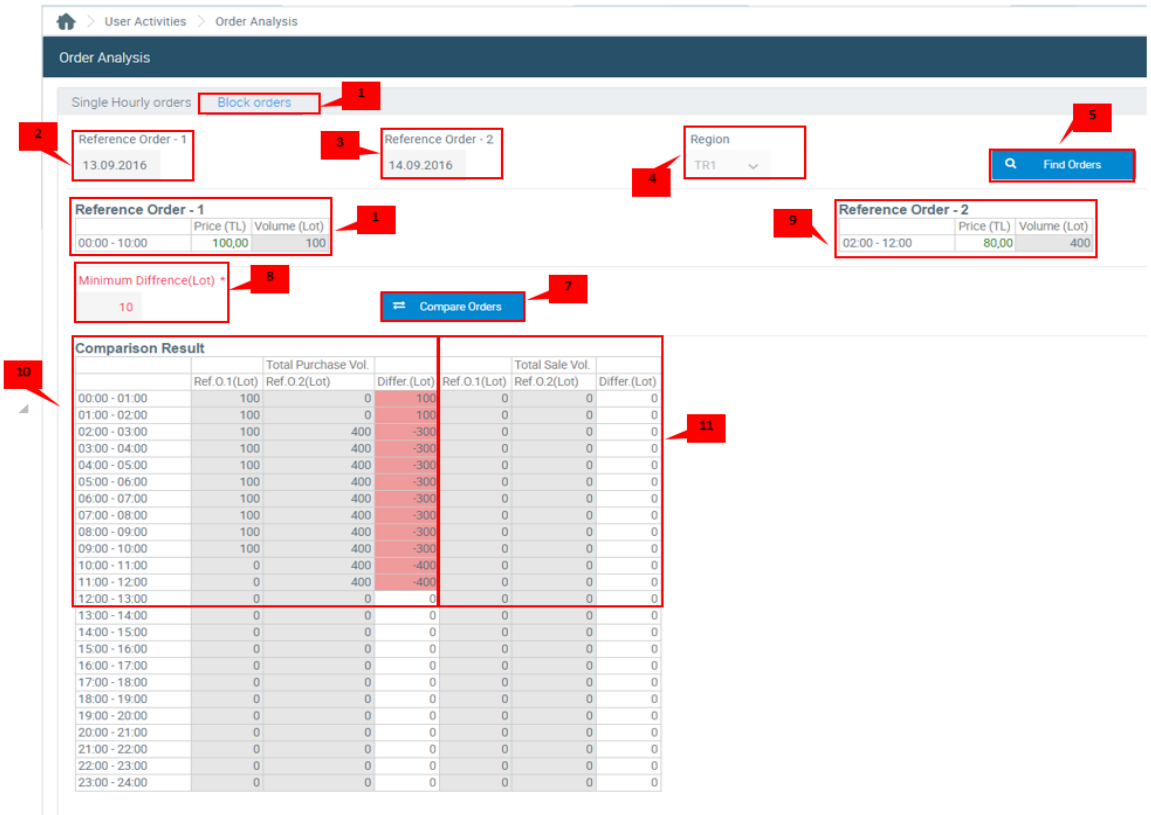


Figure 49: Block Order Analysis Section

1. Block orders tab: “Click” on here to analyze block orders. Please make sure that now block orders tab has “blue” signal which means you are in block order analysis page

2. Choose a date for reference block order-1 to compare with another block order.

3. Choose a date for reference block order-2 to compare with reference order-1.

4. Display the regions of preferred block orders to compare. Please make sure that the regions of preferred block orders to compare must be same. As such, the orders in different regions are incomparable.

5. After entering the “Reference Block Order-1, Reference Block Order-2 and Region”, “click” on Find Orders button. Once you click on “Find Orders” button, you will be able to view the orders together with information about price range and Min.Difference (Lot) for selected dates.

6. To compare two orders in different delivery days, you can set a minimum value in this box and you can view volume differences for each hour over the value you set.

- Volume unit is Lot.

- Shading will be applied to the relevant cells in accordance with minimum difference criterion.

7. Enter “price range” and volume of “minimum difference”, then click on Compare Orders button to view and compare the orders in accordance with the input given.

8. View the all purchase and sale orders for the selected date and “Reference Order-1” section.

9. View the all purchase and sale orders for the selected date and “Order Comparison” section “Reference Order-2”.

10. Click on “Compare Orders” button and view the comparison for selection. View the volume of all purchase block orders for the selected date from reference order section on the “Comparison Results” screen and view the all purchase block orders’ volume on the order comparison section for the selected date. Furthermore, view the comparison results for selection on the “Minimum Difference” section. All volumes must be in terms of Lot.

11. Click on “Compare Orders” button and view the comparison for selection. View the volumes of all sale block orders for the selected date from reference order section on the “Comparison Results” screen and view the all sale block orders’ volumes on the order comparison section for the selected date. Furthermore, view the comparison results for selection on the “Minimum Difference” section. All volumes must be in terms of Lot.

7.3. Order Display

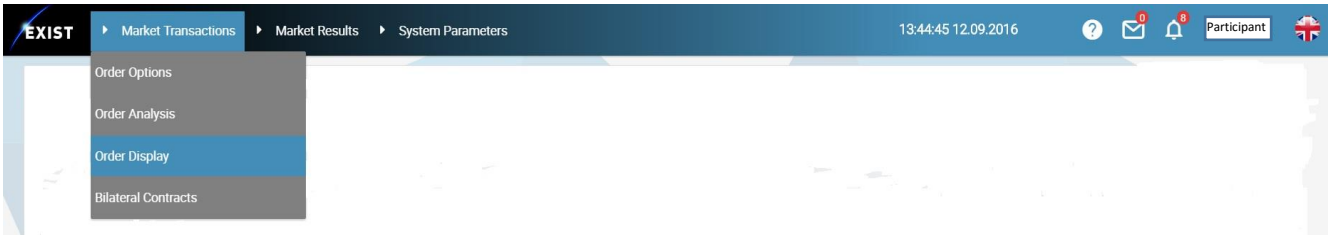


Figure 50: Order Display Tab

7.3.1. Order Display Screen

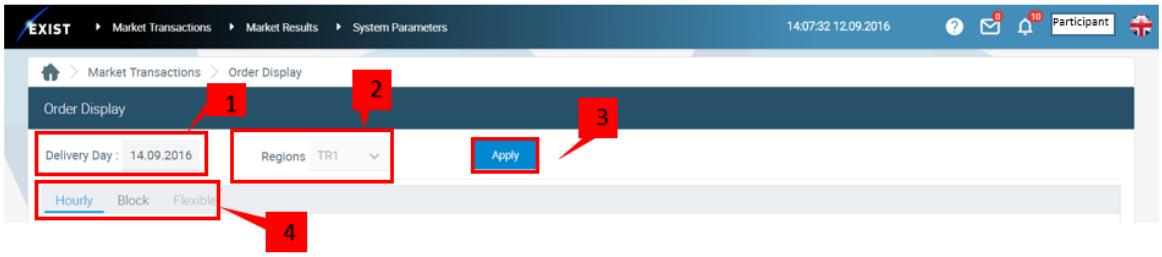


Figure 51: Order Display Section

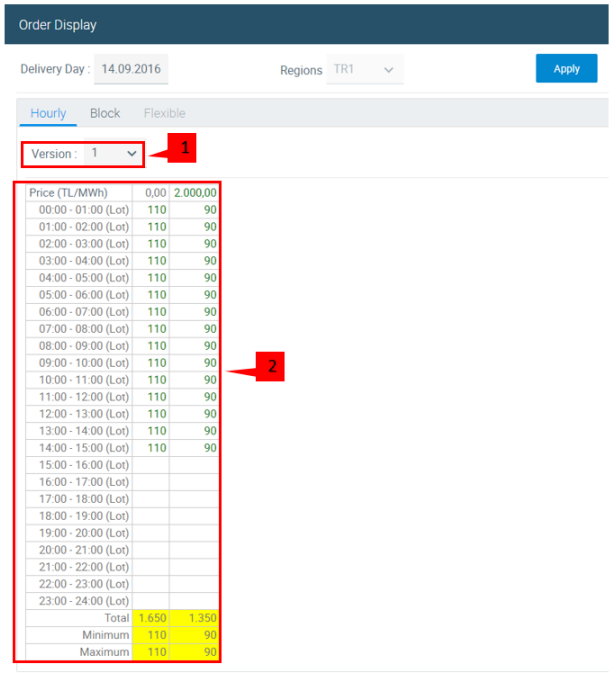
1. Delivery Day: Set a date to display the details of order belonging to relevant delivery day.

2. Regions: In case of benefiting from multiple regions to trade, you can filter your transactions in accordance with the relevant regions. However, filter currently is unable due to existence of single region named (TR1).

3.Apply: After setting date and/or region, “click” on this button to display the details of order belonging to relevant delivery day.

4.Order Type: You can choose the type order that you want to view details.

7.3.2. Single Hourly Order Display Section



Price (TL/MWh)	0,00	2.000,00
00:00 - 01:00 (Lot)	110	90
01:00 - 02:00 (Lot)	110	90
02:00 - 03:00 (Lot)	110	90
03:00 - 04:00 (Lot)	110	90
04:00 - 05:00 (Lot)	110	90
05:00 - 06:00 (Lot)	110	90
06:00 - 07:00 (Lot)	110	90
07:00 - 08:00 (Lot)	110	90
08:00 - 09:00 (Lot)	110	90
09:00 - 10:00 (Lot)	110	90
10:00 - 11:00 (Lot)	110	90
11:00 - 12:00 (Lot)	110	90
12:00 - 13:00 (Lot)	110	90
13:00 - 14:00 (Lot)	110	90
14:00 - 15:00 (Lot)	110	90
15:00 - 16:00 (Lot)		
16:00 - 17:00 (Lot)		
17:00 - 18:00 (Lot)		
18:00 - 19:00 (Lot)		
19:00 - 20:00 (Lot)		
20:00 - 21:00 (Lot)		
21:00 - 22:00 (Lot)		
22:00 - 23:00 (Lot)		
23:00 - 24:00 (Lot)		
Total	1.650	1.350
Minimum	110	90
Maximum	110	90

Figure 52: Single Hourly Order Display Section

1. Version: To view details and different versions of a submitted single hourly order for the same delivery day, filtering option is available in this select box.

2. Display the details of single hourly order in relevant delivery day and order version.

7.3.3. Block Order Display Section

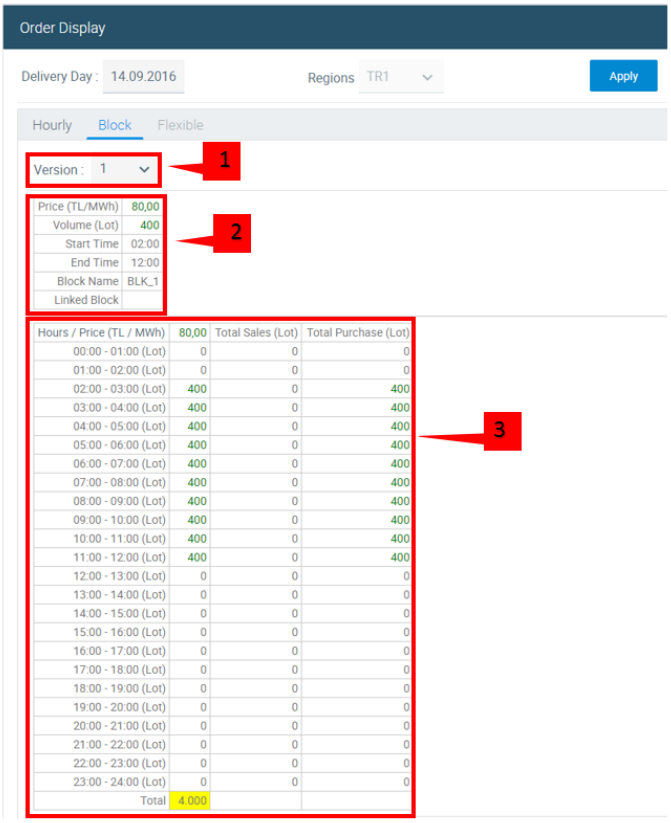


Figure 53: Block Order Display Section

1.Version: To view details and different versions of a submitted block order for the same delivery day, filtering option is available in this select box.

2. Display submitted block order in relevant delivery day and order version.

3. Display the details of block order in relevant delivery day and order version.

7.3.4. Flexible Order Display Section

Figure 54: Flexible Order Display Section

1. To view details and different versions of a submitted flexible order for the same delivery day, filtering option is available in this select box.

2. Display the details of flexible order in relevant delivery day and order version.

7.4. Bilateral Contracts

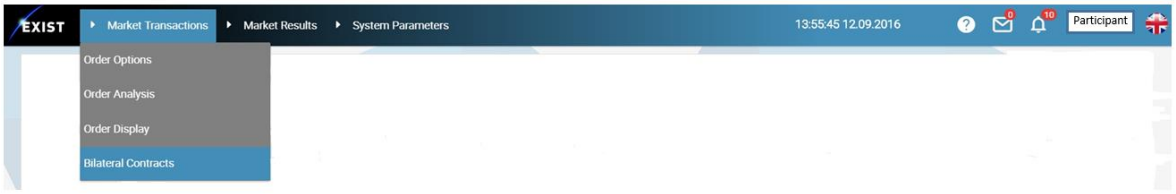


Figure 55: Bilateral Contracts Tab

- Bring mouse cursor on “Market Transactions” section on banner to display tabs and go to “Bilateral Contracts” section by one click.

7.4.1. Homepage

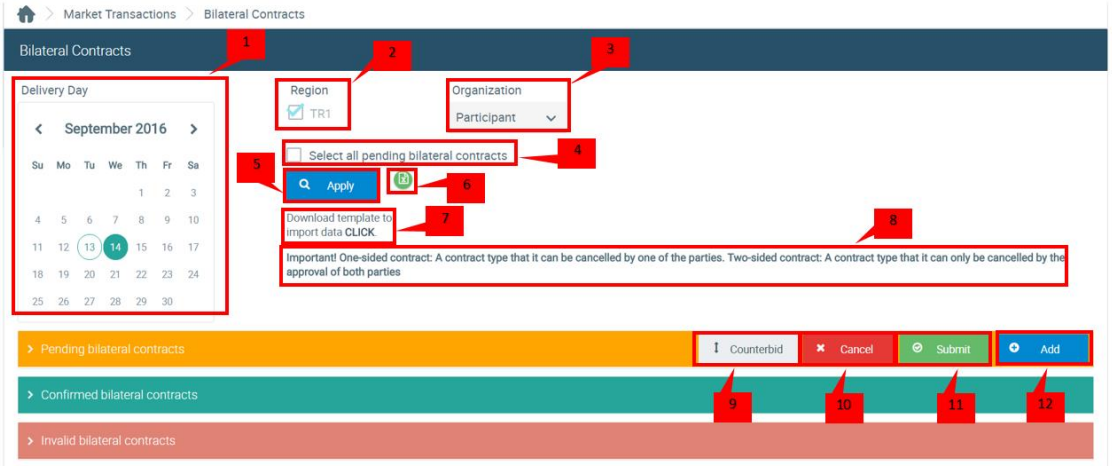


Figure 56: Bilateral Contracts Homepage

1. Delivery Day: Display the deliver day of Bilateral Contract. ‘24‘Mark indicates present day, whereas ‘25 ‘mark indicates the delivery day of bilateral contract.
2. Region: In case of benefiting from multiple regions to trade, you can filter your transactions in accordance with the relevant regions. However, filter currently is unable due to existence of single region named (TR1).
3. Organization: Display the name of counterparty that participates bilateral contract. You can select the counterparty on the list or you can type name of legal entity to find counterparty.
4. Choose all pending bilateral contracts: “Click” on here to choose all unconfirmed bilateral contracts.
5. Apply: After selecting date and organization, “click” on here to filter your request.
6. Export: “Click” on here to export pending, confirmed and invalid bilateral contracts in “.xlsx” format.
7. Import template: “Click” on here to download bilateral contract template files to upload created bilateral contract to the system.
8. Counterbid: “Click” on this button to create a counterbid as long as country party has a valid contract. Please make sure that if counter party has a purchase contract, your contract must have same values with it as a sale contract. If counter party has a sale contract, your contract

must have same values with it as a purchase contract. After using this section, you may have changes on contract values and then submit it.

9. Cancel: "Click" on this button to cancel all selected bilateral contracts.
   - Once counterparty does not submit any counterbid, the existing bilateral contract will be cancelled no matter what is the contract type and sent to "Invalid Bilateral Contracts" section.
   - A one-sided contract in pending bilateral contracts list will be cancelled and sent to "Invalid Bilateral Contracts" section if one of the parties cancels the contract.
   - A one-sided contract in confirmed bilateral contracts list will be cancelled and sent to "Invalid Bilateral Contracts" section if one of the parties cancels the contract.
   - A two-sided contract in confirmed bilateral contract's values will be turned into "0" and new version of it will be added to "Pending Bilateral Contracts" section if it is cancelled by one of the parties. However, last version of bilateral contract will remain as confirmed bilateral contract as long as counterparty does not cancel the contract.

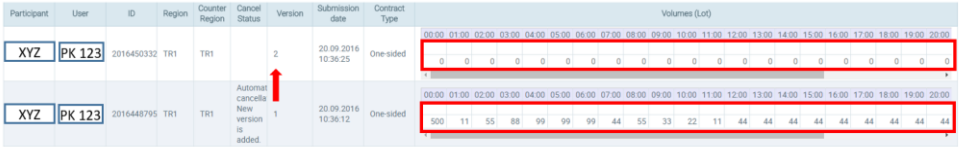


Figure 57: Cancelled contract

10. Submit: In case of having any change on the values of pending or confirmed bilateral contracts, "click" on this button to submit your contract with all updates.
11. Add: "Click" on this button to go to "Add/Copy Bilateral Contract" section.
12. Reminder: "Important! One-sided contract: A contract type that it can be cancelled by one of the parties. Two-sided contract: A contract type that it can only be cancelled by the approval of both parties"

7.4.2. Add/Copy Bilateral Contract

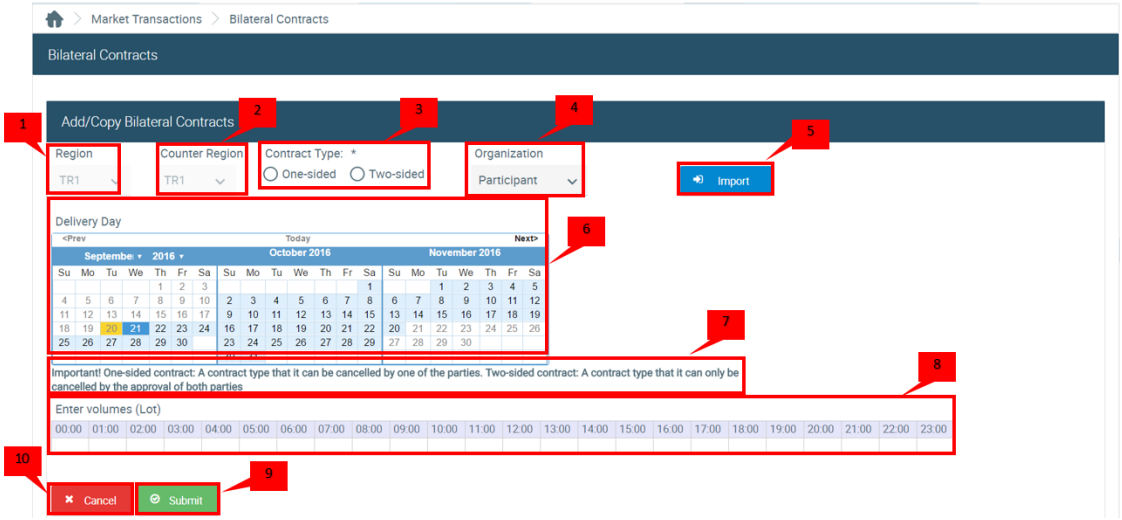


Figure 58: Contract adding section

1. Region: In case of benefiting from multiple regions to trade, you can filter your bilateral contracts in accordance with the relevant regions. However, filter currently is unable due to existence of single region named (TR1).
2. Counter area: Display the bilateral contract's region where being sent to relavant party.
3. Contract Type: There are two contract types (contract termination types), one sided and two sided, while creating a bilateral contract. In one sided and confirmed bilateral contract type, approval of one of the parties will be necessary to cancel the contract whereas in two sided bilateral contract, approval of both parties is necessary to cancel the contract.
4. Organization: "Select" the counterparty to send bilateral contract.
5. Import Import: "Click" on this button to import bilateral contract template file which contains edited and valid information to the system.
6. Delivery day: Once you go to "Add/Copy Bilateral Contract" page, you may find a calendar having days in different colors. A day colored "white" as ' 23 ' indicates that you cannot have bilateral contract in this day. A day colored "yellow" as ' 24 'indicates the present day. A day colored "blue" as ' 26 'indicates selected day. A day colored "grey" as ' 27 'indicates eligible days to make bilateral contract.
7. Reminder: "Important! One-sided contract: A contract type that it can be cancelled by one of the parties. Two-sided contract: A contract type that it can only be cancelled by the approval of both parties."
8. Contract values: Enter required values for bilateral contracts. After entering a value in a cell, you may drag this cell to copy that value to the other cells.
9. Submit: "Click" on this button to submit your contract after you set date, organization and area for relevant bilateral contract
10. Cancel: "Click" on this button to cancel contract without submission.

7.4.3. Changing Contract Type

Contract type of pending or confirmed contracts cannot be changed. Thus, in case you want to change contract type in the aftermath of creating any type of bilateral contract such as "One-Sided" or "Two-Sided", existing bilateral contract should be cancelled in accordance with the rules stated in section 7.4.1 item 9 and then it must be viewed in "invalid bilateral contracts" section for both sides. Thereafter, you can create a new bilateral contract as selecting a new contract type.

7.4.4. Pending Bilateral Contracts

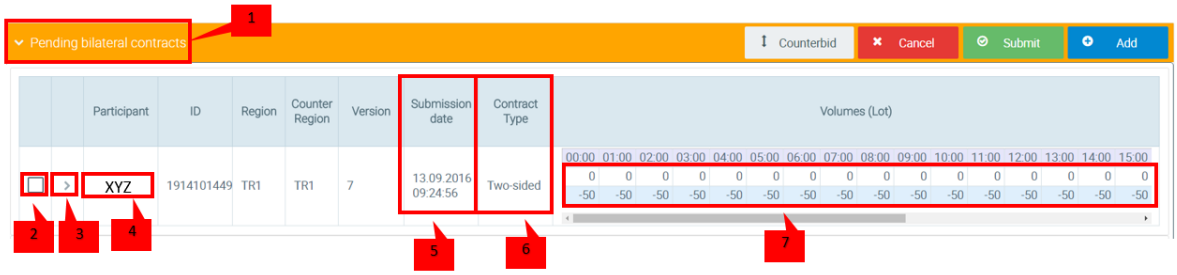


Figure 59: Pending Bilateral Contracts

1. Section that displays the pending bilateral contracts.
2. “Click” on here to make a counterbid or cancel contract being sent by counterparty.
3. Display the past versions of pending bilateral contract. You can view bilateral contracts history as it is explained in “Figure 60”. Here in section 3.1, all bilateral contracts are listed from the last version to first one. You can close this screen by clicking on arrows mentioned with 3.2 or 3.3.

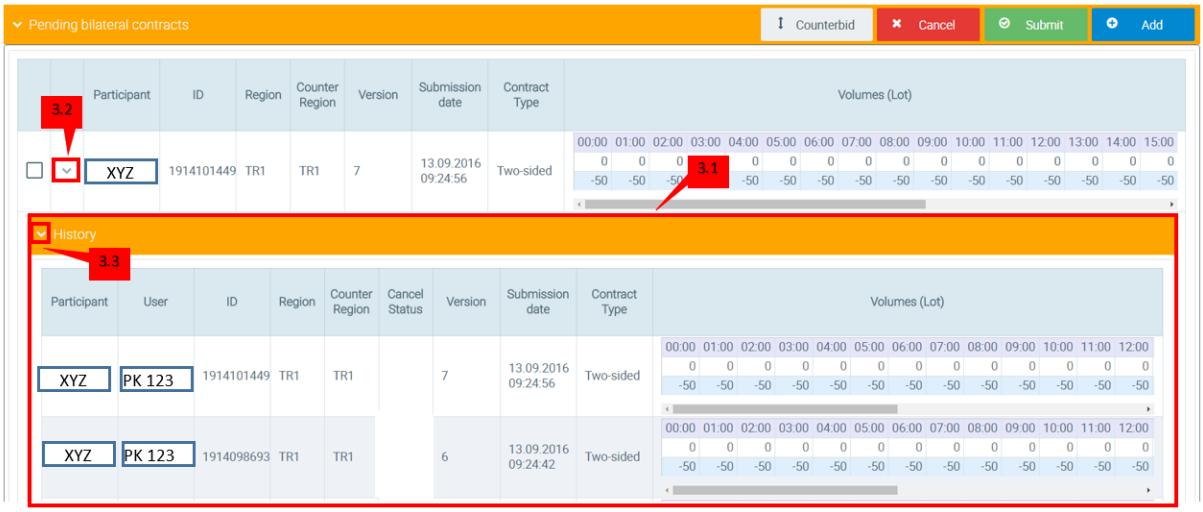


Figure 60: Pending Bilateral Contract History

The name of participant is viewed in this box. A red exclamation mark besides pending bilateral contract, as it is shown in figure 61, alerts that there is a change on confirmed bilateral contract by counterparty.

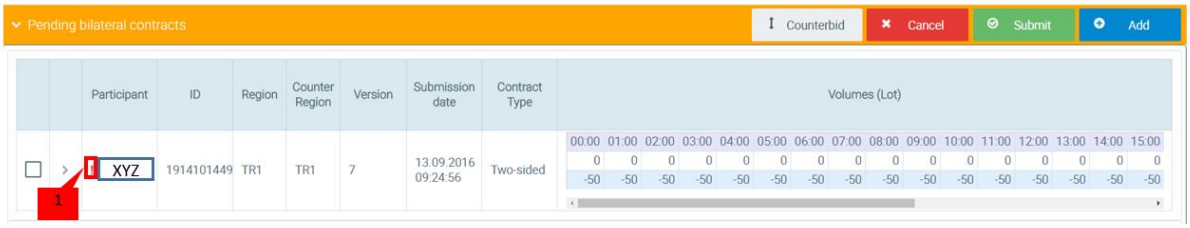


Figure 61: Changing Alert of Bilateral Contract

4. Display the submission date of bilateral contract.
5. Display bilateral contract type.
6. Display bilateral contract values.
7. Below “Pending Bilateral Contracts” section, there is figure 62 which indicates total volumes of each bilateral contract you made. Here;

- Main Party – Total Purchase: Display the total volume of pending bilateral contract in purchase side by main party.
- Main Party – Total Sales: Display the total volume of pending bilateral contract in sales side.
- Counterparty-Total Purchase: Display the total volume of pending bilateral contract in purchase side by counterparty.
- Counterparty-Total Sales: Display the total volume of pending bilateral contract in sales side by counterparty.

Figure 62: Pending Bilateral Contract Total Volume Table

7.4.5. Confirmed Bilateral Contracts

Figure 63: Confirmed Bilateral Contract

- Section that displays the confirmed bilateral contracts.

1. "Click" on here to open list of confirmed bilateral contracts.
2. "Click" on here to choose the relevant contract that you want to make any change.
3. To display past versions of confirmed bilateral contract, "click" on arrow mark indicated in figure 63 with label 3. To close history screen, "click" on arrow marks indicated in figure 64 with labels '3.1' and '3.2'. Moreover, to copy your confirmed bilateral contract to another delivery day, "click" on button indicated in figure 64 with label '3.3'. Please note that copying section is akin to features of "Add/Copy Bilateral Contract" section explained in 2nd part.

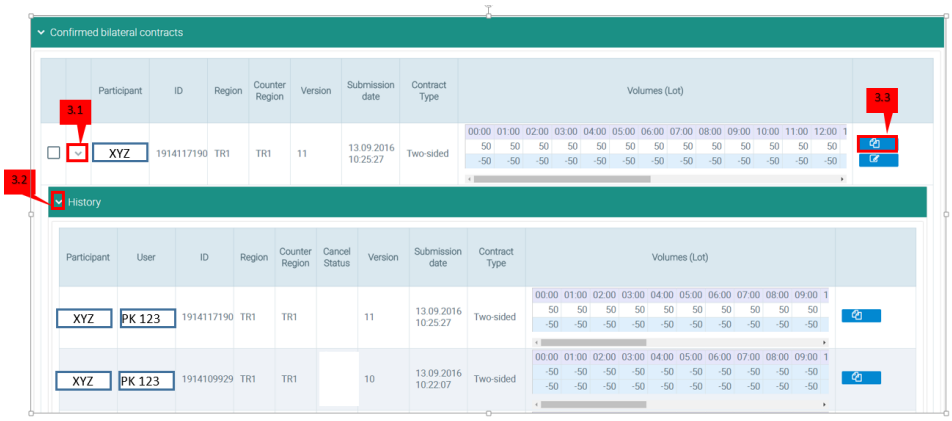


Figure 64: Confirmed Bilateral Contract History Screen

4. Display the name of counterparty that you made a bilateral contract.
5. Display the confirmation date of bilateral contract.
6. Display the bilateral contract type.
7. Display the volumes regarding relevant bilateral contract. Top row displays the volume details of your contract, whereas bottom row displays the volume details of counterparty's contract. Moreover, you can make changes on volumes in relevant row if you want to edit your contract.
8. Copy contract: "Click" on here to go to "Add/Copy Bilateral Contract" section to copy created contract to selected day(s). You can press "Ctrl" to select multiple days for copying contract. Copying transaction contains volume of bilateral contracts and you can change counterparty in relevant list.
9. Contract update: "Click" on here to go to "Add/Copy Bilateral Contract" section to edit created contract. You can update in two ways;
   - Once you update "Confirmed" and "Two-Sided" bilateral contract, updated contract will appear in "Pending Bilateral Contracts" section and last version of confirmed contract will stay in "Confirmed Bilateral Contracts" section.
   - Once you update "Confirmed" and "One-Sided" bilateral contract, updated contract will appear in "Pending Bilateral Contracts" section and last version of confirmed contract will be removed from "Pending Bilateral Contracts" section.
10. Below "Confirmed Bilateral Contracts" section, there is figure 65 which total volumes of each bilateral contract you made in purchase and sales side. Here;
    - Total Purchase Volume: Display the total purchase volume of confirmed bilateral contract in relevant hour.
    - Total Sales Volume: Display the total sales volume of confirmed bilateral contract in relevant hour.

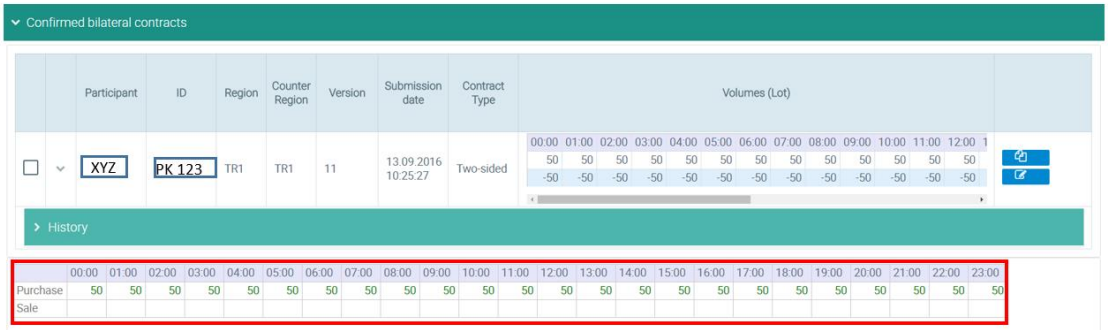


Figure 65 : Confirmed Bilateral Contract Total Volume Table

7.4.6. Invalid Bilateral Contracts

Figure 66: Invalid Bilateral Contract

- Section that displays invalid bilateral contracts. Please note that pending bilateral contracts will be removed form system after bilateral contracts gate closure.

1. “Click” on here to open invalid bilateral contracts section.
2. “Click” on here to display past versions of invalid contracts. You can close this section by clicking on arrows mentioned with ‘2.1’ or ‘2.2’.

Figure 67: Invalid Bilateral Contract History Screen

8. MARKET RESULTS

8.1. Results

8.1.1. Regional Results

8.1.2. Homepage

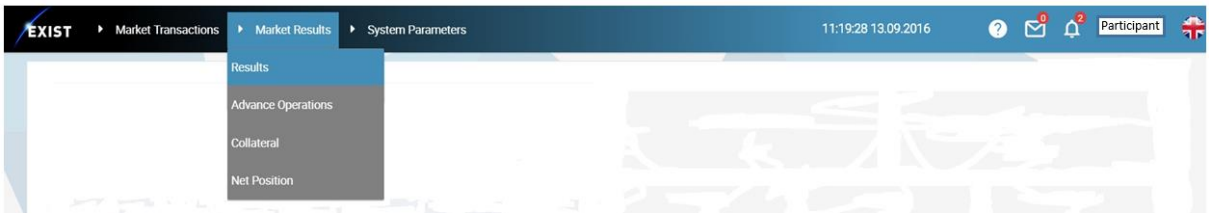


Figure 68: Results Tab

Bring mouse cursor on “Market Results” section on banner to display tabs and go to “Results” section by one click after Market Clearing Prices (MCP) are published on the screen.

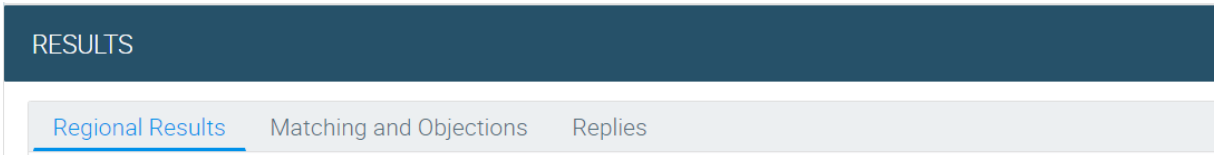


Figure 69: Regional Results Section Tab

“Click” on regional results tab to view the market clearing prices for each region.

8.1.2.1. Regional Results Buttons

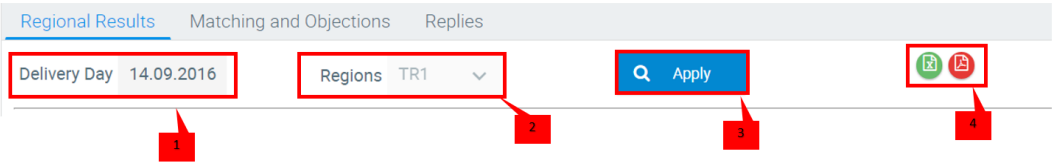


Figure 70: Regional Results Buttons

1. After final market result is announced, the last delivery date will be shown as default. Thereafter you can filter the days from calendar includes the present delivery day and day before last delivery day.
2. Regions: In case of benefiting from multiple regions to trade, you can filter regional results in accordance with the relevant regions. However, filter currently is unable due to existence of single region named (TR1)
3. Apply: "Click" on this button to view regional results for relevant delivery day.
4. "Click" on this button to export details of Regional Results in Excel format.

   "Click" on this button to export details of Regional Results in PDF format.

8.1.2.2. Regional Prices/Volumes

Figure 71: Regional Results Values Section

1. Hours: Display the each hour sequentially such as (00:00-01:00, 01:00-02:00, etc.)

2. MCP: Display the calculated Market Clearing Price for each hour.

3. Matched Volume in Purchase Side: Display the matched volume in purchase side for single hourly order and block order. Total matched volume unit is Lot for each hour.

4. Matched Volume in Sales Side: Display the matched volume in sales side for single hourly order and block order. Total matched volume unit is Lot for each hour.

5. Price independent: Display the price independent order volume in purchase side (purchase volume in the 2000 TL/MWh price step) and the price independent order volume in sales side (purchase volume in the 0 TL/MWh price step) for each hour in a daily basis.

6. Purchase Volume in 0 TL/MWh Price Step: Display the all purchase order volumes in terms of Lot for each hour in the 0 TL/MWh Price Step.

7. Sales Volume in the 2000 TL/MWh Price Step: Display the all sales order volumes in terms of Lot for each hour in the 2000 TL/MWh Price Step.

8.1.3. Matching and Objections

You can view your matched orders in this section. You can also object to the results

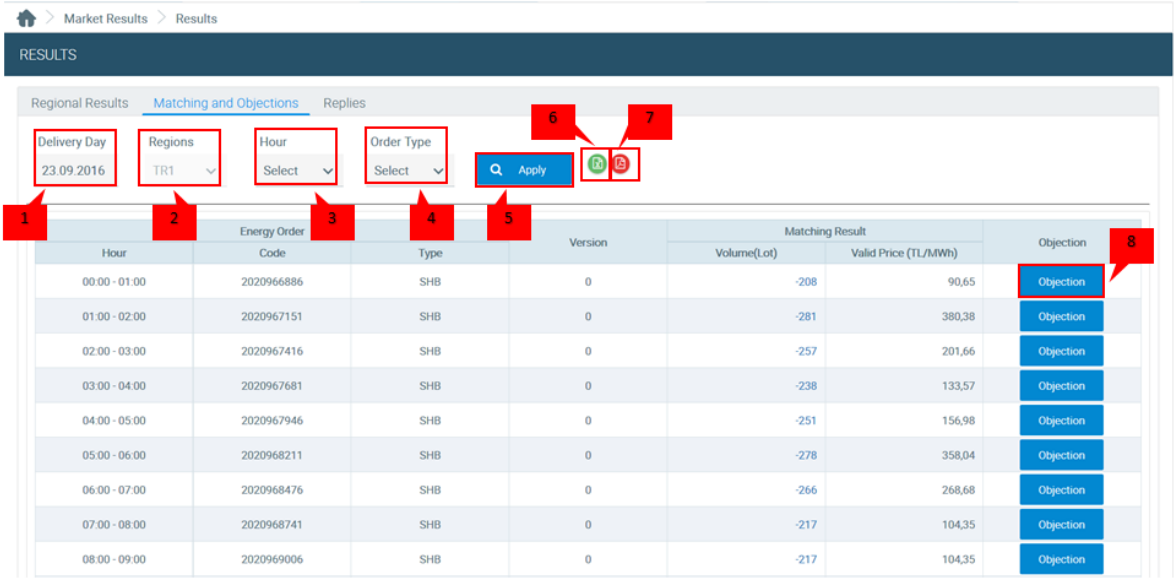


Figure 72: Matching and Objection Section

1. Delivery Day: Choose a date to view matched orders and objections for a relevant delivery day.
2. Regions: In case of benefiting from multiple regions to trade, you can filter regional results in accordance with the relevant regions. However, filter currently is unable due to existence of single region named (TR1)
3. Hour: Choose an hour to filter results in accordance with relevant delivery day
4. Order Type: Choose order type including single hourly order, block order, flexible order to filter orders in accordance with relevant delivery day.
5. Apply: After filtering Delivery Date, Hour and Order Type, "click" on this button to list matched orders in accordance with all filters you made.
6. "Click" on this button to export details of Matched Orders and Objections in Excel format.
7. "Click" on this button to export details of Matched Orders and Objections in PDF format.
8. Objection: "Click" on this button to object matched orders for the relevant delivery day in case of any mistake.

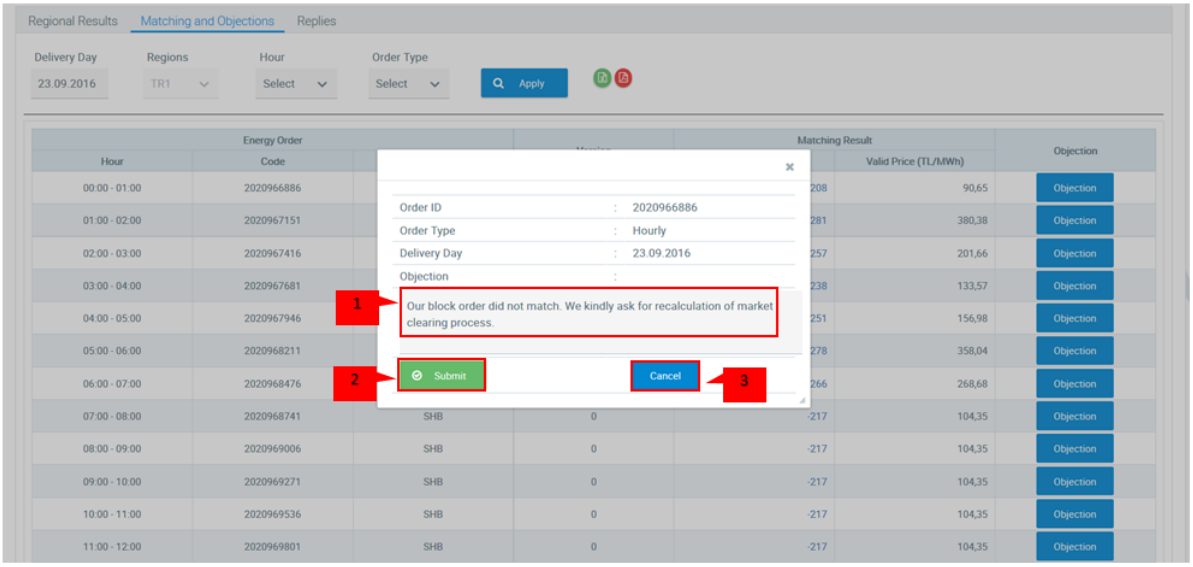


Figure 73: Objection Section

Once you click on objection button, the objection screen will be opened as a pop-up.

1. Display the reason why the participant has objection in this part.
2. Submit: Explain the reason of objection, and "click" on submit button to send your objection to the market operator.
3. Cancel: "Click" on this button to close pop-up without submitting your objection to the market operator.

8.1.4. Replies

Display the answer given by market operator to market participant's objection.

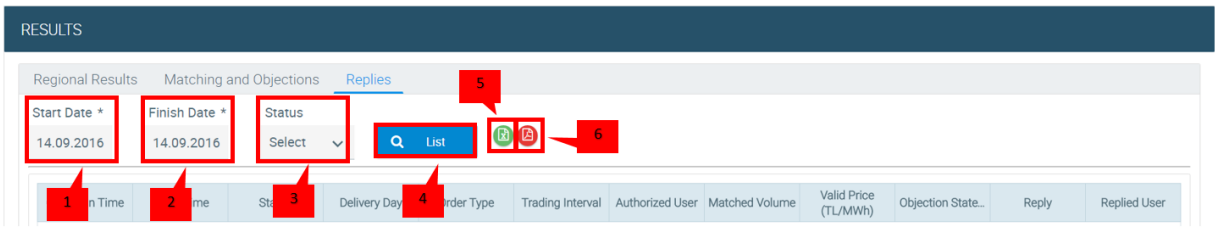


Figure 74: Objection and Replies Section

1. Start Date: Set "Start date" to view replies for all objections.
2. Finish Date: Set "Finish date" to view replies for all objections.
3. Status: You can filter the status includes unanswered, accepted and rejected of answers in this section
4. List: After filtering starting date, finish date and status, "click" on this button to list and view replies for all objections.
5. "Click" on this button to export details of Replies in Excel format.
6. "Click" on this button to export details of Replies in PDF format.

8.2. Advance Operations

Figure 75: Advance Operations Tab

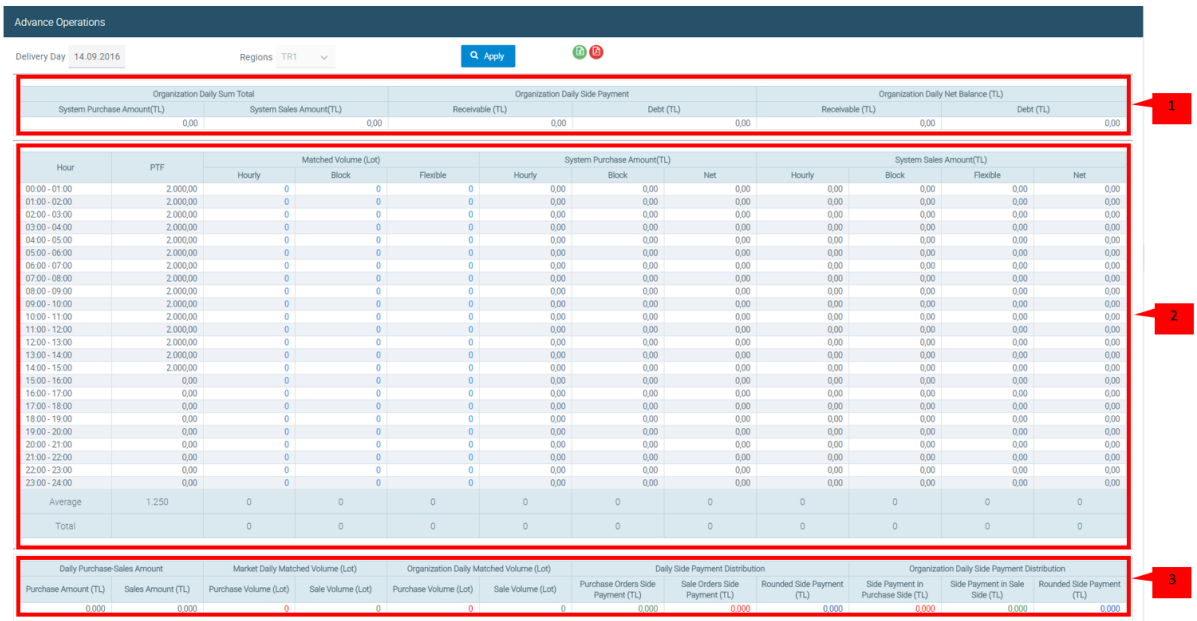


Figure 76: Advance Operations Section

1. Display the “Participant Daily Sum Total”, “Participant Daily Side Payment” and “Participant Difference Net (Monetary) Position” data in delivery date in Advance Operations section.

2. Display the “Matched Volume”, “System Purchase Amount”, “System Sale Amount” and “Side Payment” data for every hour in delivery day in Advance Operations section.

3. Display the “Daily Total Purchase Amount”, “Daily Total Sale Amount”, “Daily Side Payment Amount”, “Market Daily Volume”, “Participant Daily Volume” data in delivery day in Advance Operations section.

8.2.1. Advance Operations Section

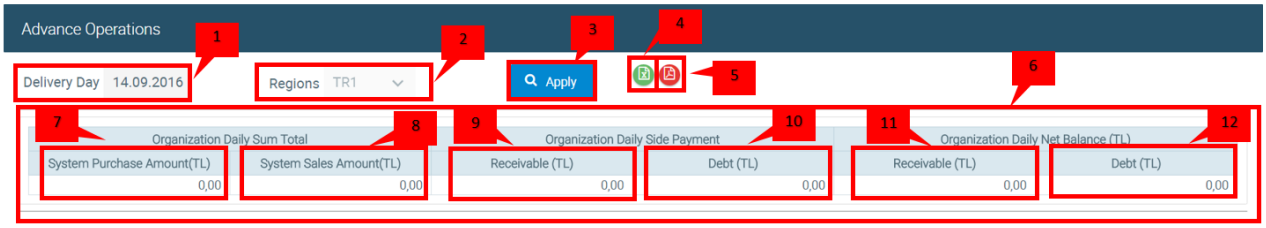


Figure 77: Advance Operations Section-1

1. Delivery Day: Select the date to view advance operations.
2. Regions: In case of benefiting from multiple regions to trade, you can filter your Advance Operations in accordance with the relevant regions. However, filter currently is unable due to existence of single region named (TR1).
3. Apply: Apply: “Click” on this button to view advance operation in accordance with selected delivery day and region.
4. “Click” on this button to export details of Advance Operations in Excel format.
5. “Click” on this button to export details of Advance Operations in PDF format.
6. Display the Daily Sum Total which contains Organization Daily Sum Total, Organization Daily Side Payment, and Organization Daily Net Sum.
7. Display daily total system purchase amount for purchase side by market participant.
8. Display daily total system sales amount for sales side by market participant.
9. Display the balance receivable of side payment resulted from daily transactions among participants.
10. Display the debt balance of side payment resulted from daily transactions among participants.
11. Display the net receivable balance receivable resulted from daily transactions and the side payment.
12. Display the net debt balance resulted from daily transactions and the side payment.

Hour	PTF	Matched Volume (Lot)			System Purchase Amount(TL)			System Sales Amount(TL)			
		Hourly	Block	Flexible	Hourly	Block	Net	Hourly	Block	Flexible	Net
00:00 - 01:00	2.000,00	0	0	0	0,00	0,00	0,00	0,00	0,00	0,00	0,00
01:00 - 02:00	2.000,00	0	0	0	0,00	0,00	0,00	0,00	0,00	0,00	0,00
02:00 - 03:00	2.000,00	0	0	0	0,00	0,00	0,00	0,00	0,00	0,00	0,00
03:00 - 04:00	2.000,00	0	0	0	0,00	0,00	0,00	0,00	0,00	0,00	0,00
04:00 - 05:00	2.000,00	0	0	0	0,00	0,00	0,00	0,00	0,00	0,00	0,00
05:00 - 06:00	2.000,00	0	0	0	0,00	0,00	0,00	0,00	0,00	0,00	0,00
06:00 - 07:00	2.000,00	0	0	0	0,00	0,00	0,00	0,00	0,00	0,00	0,00
07:00 - 08:00	2.000,00	0	0	0	0,00	0,00	0,00	0,00	0,00	0,00	0,00
08:00 - 09:00	2.000,00	0	0	0	0,00	0,00	0,00	0,00	0,00	0,00	0,00
09:00 - 10:00	2.000,00	0	0	0	0,00	0,00	0,00	0,00	0,00	0,00	0,00
10:00 - 11:00	2.000,00	0	0	0	0,00	0,00	0,00	0,00	0,00	0,00	0,00
11:00 - 12:00	2.000,00	0	0	0	0,00	0,00	0,00	0,00	0,00	0,00	0,00
12:00 - 13:00	2.000,00	0	0	0	0,00	0,00	0,00	0,00	0,00	0,00	0,00
13:00 - 14:00	2.000,00	0	0	0	0,00	0,00	0,00	0,00	0,00	0,00	0,00
14:00 - 15:00	2.000,00	0	0	0	0,00	0,00	0,00	0,00	0,00	0,00	0,00
15:00 - 16:00	0,00	0	0	0	0,00	0,00	0,00	0,00	0,00	0,00	0,00
16:00 - 17:00	0,00	0	0	0	0,00	0,00	0,00	0,00	0,00	0,00	0,00
17:00 - 18:00	0,00	0	0	0	0,00	0,00	0,00	0,00	0,00	0,00	0,00
18:00 - 19:00	0,00	0	0	0	0,00	0,00	0,00	0,00	0,00	0,00	0,00
19:00 - 20:00	0,00	0	0	0	0,00	0,00	0,00	0,00	0,00	0,00	0,00
20:00 - 21:00	0,00	0	0	0	0,00	0,00	0,00	0,00	0,00	0,00	0,00
21:00 - 22:00	0,00	0	0	0	0,00	0,00	0,00	0,00	0,00	0,00	0,00
22:00 - 23:00	0,00	0	0	0	0,00	0,00	0,00	0,00	0,00	0,00	0,00
23:00 - 24:00	0,00	0	0	0	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Average	1.250	0	0	0	0	0	0	0	0	0	0
Total		0	0	0	0	0	0	0	0	0	0

Figure 78: Advance Operations Section-2

1. Display the hourly average and total of 24 hourly details of Market Clearing Price, Matched Volume, System Sale Amount, System Purchase Amount and Net Position.

2. Display the Hourly Market Clearing Price on the basis of Conciliation Period.

3. In this section, you can view the matched single hourly orders’, block orders’ and flexible orders’ volume in terms of Lot in hourly basis. Matched orders in purchase side are viewed positively and matched orders in sales side are viewed negatively. Furthermore, you can click

on the matched block order volume and display number and detail of order. You can also click on flexible order to view its details.

4. Display the System Purchase Amount and the Net Purchase Amount in hourly basis for single hourly order and block order.
5. Display the System Sale Amount and the Net Sale Amount in hourly basis for Single Hourly Order, Block Order and Flexible Order.
6. Display the Net balance resulted from daily transactions in the relevant day. This value which is viewed in this section is resulted from the difference between purchase and sales volume of the participant's daily orders in market.
7. Display the 24 hourly average of sum total for each column individually.
8. Display the sum total for each column individually.

Figure 79: Advance Operations Section-3

1. Daily Purchase-Sales Amount: You can view traded sum of all daily transactions in Day Ahead Market for relevant delivery day in TL (Turkish Lira) unit.

a) Purchase Amount: Display traded total purchase amount in Day Ahead Market for relevant delivery day.

b) Sales Amount: Display traded total sales amount in Day Ahead Market for relevant delivery day.

2. Market Daily Matched Volume: You can view traded total matched volume in Day Ahead Market for relevant delivery day in MWh unit.

a) Purchase Volume: Display traded total purchase volume in Day Ahead Market for relevant delivery day.

b) Sales Volume: Display traded total sales volume in Day Ahead Market for relevant delivery day.

3. Organization Daily Matched Volume: You can view traded total matched volume of your organization in purchase and sales side in Day Ahead Market for relevant delivery day in MWh unit.

a) Purchase Volume: Display traded total volume of your organization in purchase side in Day Ahead Market for relevant delivery day.

b) Sales Volume: Display traded total volume of your organization in sales side in Day Ahead Market for relevant delivery day.

4. Daily Side Payment Distribution: You can view total sum of side payment for each item in TL (Turkish Lira) unit occurred in Day Ahead Market for relevant delivery day.

a) Purchase Orders Side Payment: Display the total side payment which is resulted from block orders in purchase side for relevant delivery day in accordance with the side payment procedures issued by Market Operator.

b) Sales Orders Side Payment: Display the total side payment which is resulted from block and flexible orders in sale side for relevant delivery day in accordance with the side payment procedures issued by Market Operator.

c) Rounded Side Payment: Display the total side payment which is resulted from rounding of volume and pricing for relevant delivery day in accordance with the side payment procedures issued by Market Operator.

5. Organization Daily Side Payment Distribution: You can view the amount of your payment or receivable, TL (Turkish Lira) unit for each item, resulted from total side payment in Day ahead Market for relevant delivery day.

a) Side Payment in Purchase Side: Display the side payment reflected on participant in accordance with the side payment procedures issued by Market Operator.

b) Side Payment in Sale Side: Display the side payment reflected on participant in accordance with the side payment procedures issued by Market Operator.

c) Rounded Side Payment: You can view the side payment, whether you receive or pay, resulted from rounding of volume and pricing for relevant delivery day in accordance with the side payment procedures issued by Market Operator.

8.3. Collateral

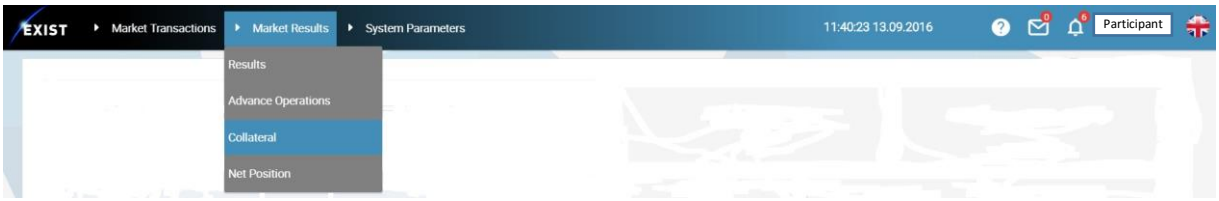


Figure 80: Collateral Tab

Collateral

Participant

Last Payment Date of Collateral: : 20.09.2016 11:00 (Please note that letter of guarantee must be issued until 10:30 and the other types of collateral must be issued until 11:00)

Payment Date : * 20.09.2016

Display

Required Cash Collateral	Available Cash Collateral	Difference
No records found.		

Total Required Collateral	Total Available Collatarel	Difference
No records found.		

Initial Collateral

Date	Initial Collateral
Beginning from 19/08/2016 - 21/09/2016	10,000.00
Beginning from 22/09/2016	10,000.00

DAM & IM Collateral Amount

Delivery Date	DAM Operations			INTRADAY Operations			TOTAL	Aggregate Default
	Receivable	Debt	Net	Receivable	Debt	Net		
19.09.2016	4,265.46	0.00	4,265.46	0.00	0.00	0.00	0.00	0.00
18.09.2016	3,329.06	0.00	3,329.06	0.00	0.00	0.00	0.00	
17.09.2016	3,799.75	0.00	3,799.75	0.00	0.00	0.00	0.00	

- Number of day in default : 0
- Default coefficient : 0.000

Imbalance Collateral Amount

Term	Average SMP (TL/MWH)	Energy Imbalance Volume	Secondary Frequency Control Imbalance Volume	Imbalance Volume Subject to Collateral
01.08.2016	165.01	76.6477	0.00	76.65
01.07.2016	130.16	-136.7233	0.00	-136.72
01.06.2016	129.26	130.3757	0.00	130.38

- Beginning from 19/08/2016 - 21/09/2016 **Total Imbalance Collateral (DT)** :26,693.86
- Beginning from 22/09/2016 **Total Imbalance Collateral (DT)** :33,841.07

Risk Collateral Amount (RT)

Payment Date	Risk Collateral Amount
23.09.2016	0.000
22.09.2016	0.000
21.09.2016	0.000
20.09.2016	0.000

Additional Collateral (ET = DT + RT)

Payment Date	Additional Collateral (ET = DT + RT)
23.09.2016	33,841.070
22.09.2016	33,841.070
21.09.2016	26,693.860
20.09.2016	26,693.860

Figure 81: Collateral Section

You can click on "Market Clearing Results– Collateral check" Screen on the top menu to view the "Collateral" section. This section contains Day Ahead Market and Intraday Market transactions, initial collateral, the default days of market participant and the default coefficient, imbalance volumes and imbalance collateral amount specified in Settlement Period, risk collateral amount and additional collateral. The date on the screen shows the valid day of collateral amount.

8.3.1. Collateral Amounts

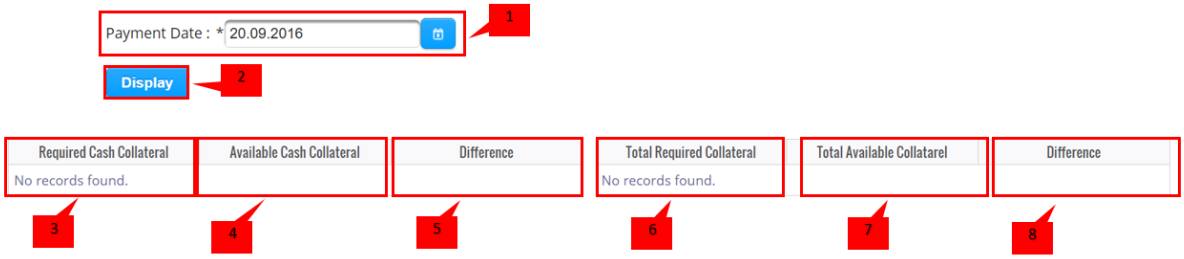


Figure 82: Collateral Amount

1. You can choose date of payment in this section.
2. "Click" on Display this button to display collateral information for the day of payment you have chosen.
3. Display required cash collateral belongs to last update time. Collateral amount unit is TL.
4. Display available cash collateral belongs to last update time. Collateral amount unit is TL.
5. Display the difference between available cash collateral and required cash collateral. Collateral amount unit is TL.
6. Display total required collateral belongs to last update time. Collateral amount unit is TL.
7. Display total available collateral belongs to last update time. Collateral amount unit is TL.
8. Display the difference between total available collateral and total required cash collateral. Collateral amount unit is TL.

8.3.2. Initial Collateral

Initial Collateral	
Date	Initial Collateral
Beginning from 19/08/2016	200,000.00

Figure 83: Initial Collateral

1. Display the validity date of initial margin.
2. Display calculated initial collateral. Amount unit is TL.

8.3.4. Market Transactions

DAM & IM Collateral Amount								
Delivery Date	DAM Operations			INTRADAY Operations			TOTAL	Aggregate Default
	Receivable	Debt	Net	Receivable	Debt	Net		
19.09.2016	4,265.46	0.00	4,265.46	0.00	0.00	0.00	0.00	0.00
18.09.2016	3,329.06	0.00	3,329.06	0.00	0.00	0.00	0.00	
17.09.2016	3,799.75	0.00	3,799.75	0.00	0.00	0.00	0.00	

- Number of day in default : 0
- Default coefficient : 0.000

Figure 84: Market Transactions Section

1. Delivery Day: Display delivery day of order.
2. Day Ahead Market Transactions: Display the receivable balance receivable, the debt balance and Net Cost in the Day Ahead Market for the relevant delivery day.

a. Receivable: Display the market participant's receivable balance receivable taken from Market Operator for Day Ahead Market transaction. Receivable is in the terms of TL and shows 2 decimal places after comma.

b. Debt: Display the market participant's debt balance debt paid to Market Operator for Day Ahead Market transaction. Debt is in the terms of TL and shows 2 decimal places after comma.

c. Net Cost: Display the market participant's net cost in the receivable and debt statement for Day Ahead Market transaction.

3. Intraday Market Transactions: Display the receivable balance, the debt balance and net cost in the Intraday Market for the relevant delivery day.

a. Receivable: Display the market participant's receivable balance taken from Market Operator for Intraday Market transaction. Receivable is in the terms of TL and shows 2 decimal places after comma.
b. Display the market participant's debts paid to Market Operator for Intraday Market transaction. Debt is in the terms of TL and shows 2 decimal places after comma.

c. Net (Monetary) Position: Display the market participant's net monetary position in the asset and liability statement for Intraday Market transaction.
4. Total: Display the aggregate amount due to total asset and liability statement for the related day.

5. Defaulted Aggregate Amount: Display the defaulted aggregate amount calculated according to formula in the Guarantee Calculation Procedure.

- Number of day in default : 0
- Default coefficient : 0.000

Figure 85: Default and Coefficient

- In the figure 84, default days of market participant and the default coefficient is calculated in accordance with procedure are viewed in this specified field.

8.3.4. Imbalance Volumes and Colleteral

Imbalance Collateral Amount

1 Term	2 Average SMP (TL/MWH)	3 Energy Imbalance Volume	4 Secondary Frequency Control Imbalance Volume	5 Imbalance Volume Subject to Collateral
01.08.2016	165.01	76.6477	0.00	76.65
01.07.2016	130.16	-136.7233	0.00	-136.72
01.06.2016	129.26	130.3757	0.00	130.38

Figure 86: Imbalance Volume Table

1. Period: Display dates for each Settlement Period. For example, " 01.02.2016" indicates the Settlement Period from 1 February to 31 February.
2. SMP Average: Display average of System Marginal Price for each Risk Period in terms of TL/MWh.
3. Energy IA: Display total imbalance amount for each Settlement Period.
4. SFC IA: Display imbalance amount specified in Settlement Period due to Secondary Frequency Control.
5. The imbalance amount using for guarantee calculation: The amount consisted in the imbalance amount is viewed in this section.

- Beginning from 11/07/2016 - 20/07/2016 Total Imbalance Collateral (DT) :0.00
- Beginning from 21/07/2016 Total Imbalance Collateral (DT) :0.00

Figure 87: Imbalance Collateral Amount

- In figure 86, according to Collateral Calculation Procedure estimated imbalance guarantee amount is viewed in between the specified dates.

8.3.5. Risk Collateral Amount

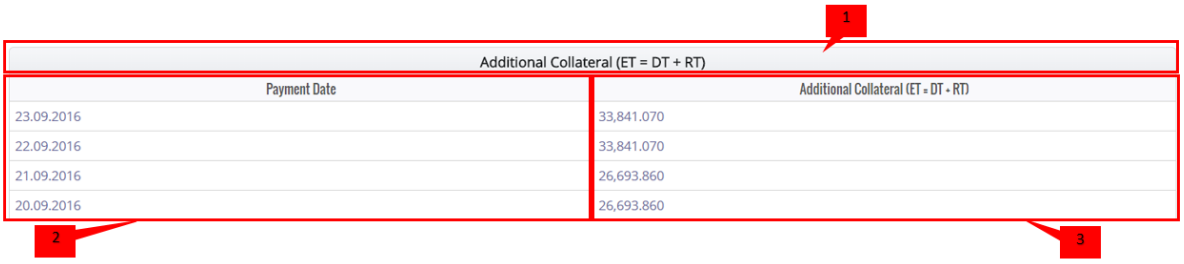
Risk Collateral Amount (RT)

Payment Date	Risk Collateral Amount
23.09.2016	0.000
22.09.2016	0.000
21.09.2016	0.000
20.09.2016	0.000

Figure 88: Risk Collateral Amount

1. Display the date of payment of Risk Collateral Amount.
2. Display the risk collateral amount of selected date of payment.

8.3.6. Additional Collateral Amount



Additional Collateral (ET = DT + RT)

Payment Date	Additional Collateral (ET = DT + RT)
23.09.2016	33,841.070
22.09.2016	33,841.070
21.09.2016	26,693.860
20.09.2016	26,693.860

Figure 89: Additional Collateral Table

1. The amount of required additional collateral is viewed in this table.
2. Display the payment date of the signified additional collateral amount.
3. Display the dates specified for additional collateral amount.

8.4. Net Position

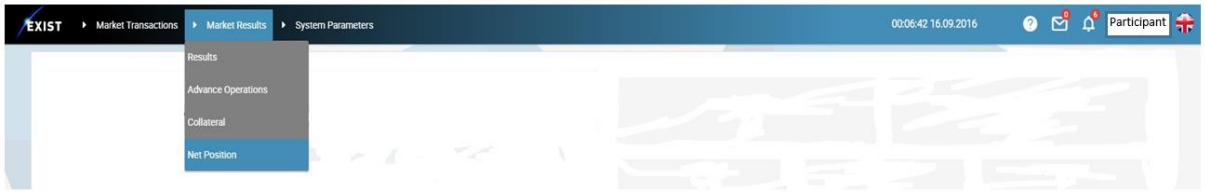


Figure 90: Net Position Tab

Bring mouse cursor on “Market Results” section on banner to display tabs and go to “Net Position” section by one click.

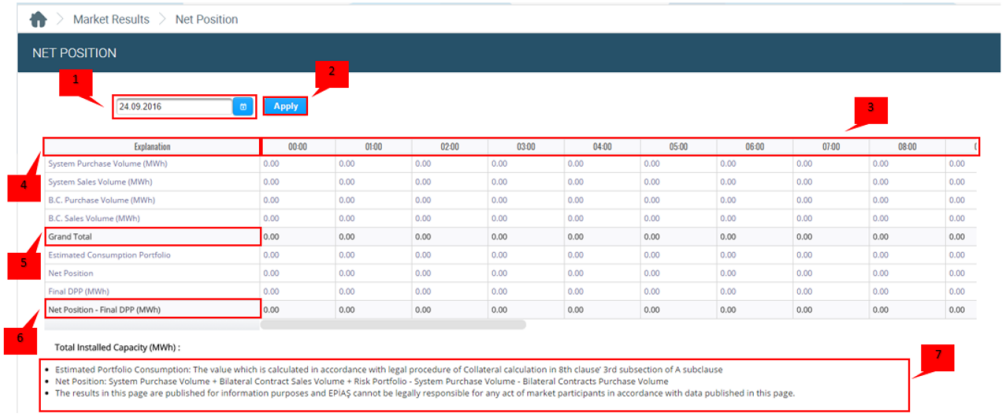


Figure 91: Net Position Section

Once you click on Net Position tab, this page will be opened.

1. Choose date to display information about Net Position.
2. Apply: "Click" on this button to display information in selected date.
3. Display hourly data for date required in this field.
4. Explanation: Display list of titles that you can view information about.
5. Grand Total: Display the sum of "System Purchase Volume", "System Sales Volume", "Bilateral Contract Purchase Volume" and "Bilateral Contract Sales Volume" on the basis of MWh for every hour.
6. Net Position– Final Daily Production Program (KGÜP): Display the amount of difference in selected data set in this field for relevant day.

Display the calculation method of some values in selected data set for relevant day and explanations of Market Operator with regard to these data.

9. SYSTEM PARAMETERS

"Click" on "System Parameters" section to add necessary parameters whilst you do your transaction in day ahead market.

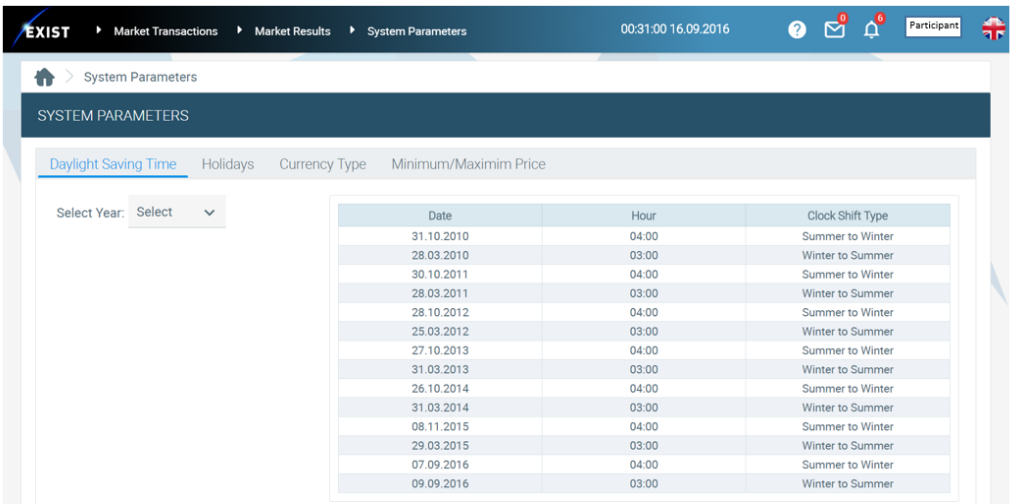


Figure 92: System Parameters

System Parameters contains following tabs;

- ✓ Daylight Saving Time
- ✓ Holidays
- ✓ Exchange rate
- ✓ Minimum/Maximum Prices
- ✓ Parameters
  - Current Parameters

Daylight Saving Time is shown as default and System Parameters let the transition between the screens by the help of tabs.

9.1 System Parameters Banner

Once you "click" on any tab in this section, system parameters banner will be available in every page.

Figure 93: Banner in System Parameters Section

Tabs provide get through the transition from one screen to another. These tabs are;

1. Daylight Saving Time
2. Holidays
3. Exchange Rate
4. Minimum / Maximum Prices

9.2 Daylight Saving Time

You can view the execution date of Summer and Winter Times. Moreover, you can view the explanations for Summer Time is 23 hours and Winter Time is 25 hours. You should pay attention order for this situation more than before because of the fact that order in the Summer and Winter Times are different from others.

- ✓ "Click" on "Daylight Saving Time" tab. After click, the tab will signal as "blue".
- ✓ Daylight Saving Time consists of " Date, Time and "Clock Shift Type"" fields.
- ✓ It is possible to do filtering on yearly basis.

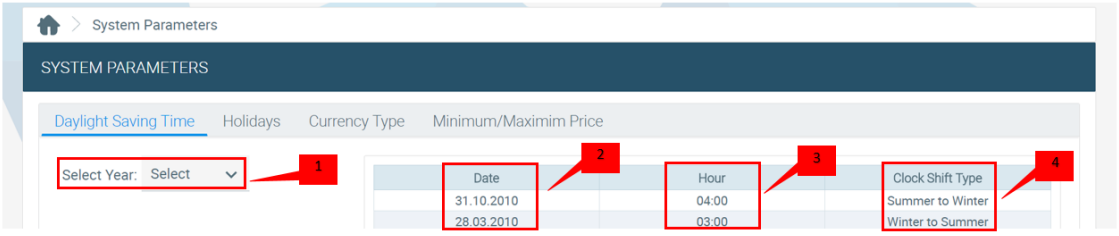


Figure 94: Daylight Saving Time

1. You can view the information of daylight saving time registered in the system by year.
2. The date of transition regarding summer or winter time is viewed in this column.

3. The time of transition regarding summer or winter time is viewed in this column.
   The clock shift type of transition regarding summer or winter time is viewed in this column.

9.3 Official Holidays

Public holidays which are registered in the system previously are shown in this section. Please note that there will be double collateral check at 11.00 a.m. and 05.00 p.m. for the last workday before weekend and/or official holiday. Moreover, the collateral check for Intraday Market will be taken place at 05.00 p.m. regularly. Thus, collateral check is of utmost importance for the last workday before weekend and/or official holidays.

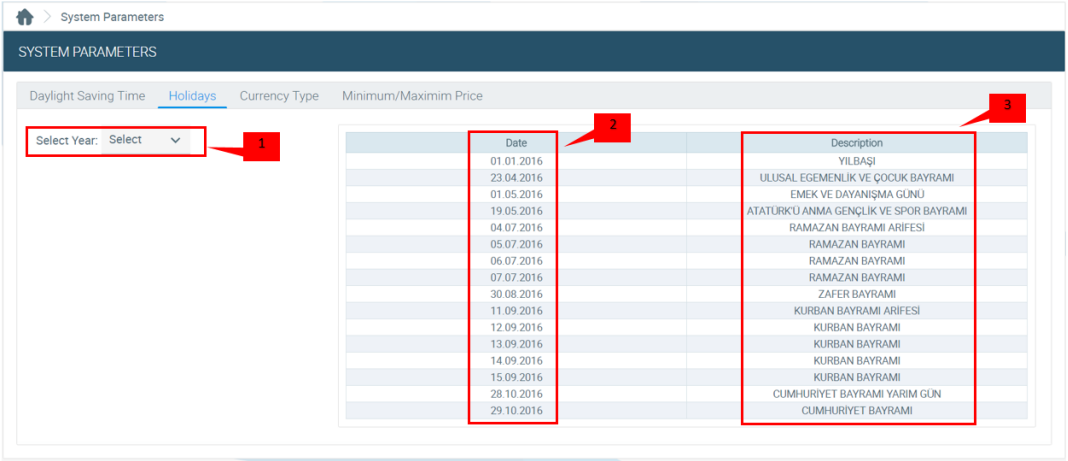


Figure 95: Holidays

1. Choose a year to view official holidays in calendar.
2. Display list of dates of official holidays in calendar will be shown specifically in accordance with chosen year in step 1.
3. Display names of official holidays in calendar will be shown specifically in a list.

9.4 Exchange Rate

You can view the current exchange rates on the basis of Euro and Dollar in this section.

- ✓ "Click" on Exchange Rate tab. After click, the tab will signal as "blue".
- ✓ Exchange rate section consists of "Start Date, Currency Type, and Exchange Rate" fields. You can filter data on yearly and weekly basis in relevant year.

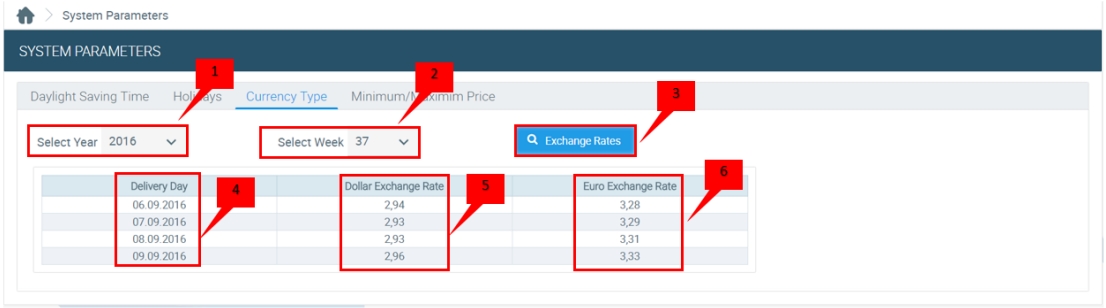


Figure 96: Currency Type

1. You can filter the exchange rates registered in the system on yearly basis.
2. You can filter the exchange rates registered in the system on weekly basis.
3. “Click” on “Exchange Rates” button to view information about selected year and week.
4. Display “ Delivery Day” which is valid for sorted exchange rate in accordance with selected date.
5. Display “Currency” which is valid for relevant delivery day.
6. Display the buying rate of Central Bank of Turkey (Dollar $, Euro €) used in translating foreign currency unit to Turkish Lira.

9.5 Minimum/Maximum Prices

You can list the maximum and minimum prices using for the system in this section. The limit of minimum price as 0 TL/MWh and the limit of maximum price as 2000 TL/MW are defined by the Market Operator. In case of any change in market conditions, Market Operator can update the minimum and maximum price limits and publish them to market participants.

- ✓ “Click” on Minimum/Maximum Price tab. After click, the tab will signal as “blue”.
- ✓ Minimum/Maximum Prices section consists of “Start Date, Minimum Price (TRY), and Maximum Price (TRY)” fields.
- ✓ Market operator-determined minimum and maximum order volume is in the range of ±100.000 Lot.

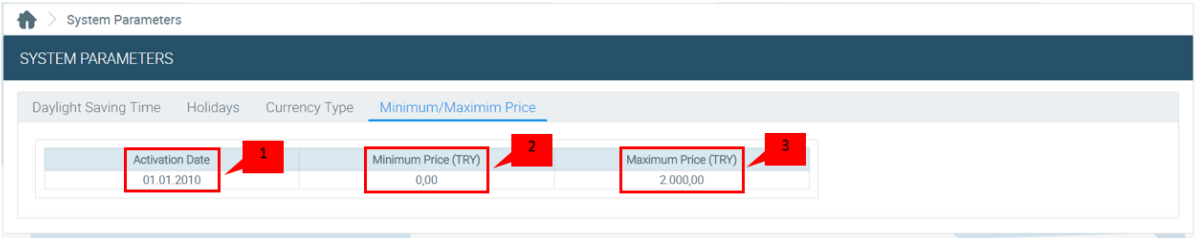


Figure 97: Min/Max Prices

To set price limits in this section, you can follow steps below;

1. Data of current parameters in regard to the starting time is viewed in this column.
2. The Price cannot be less than the minimum price for defined delivery time.
3. The Price cannot be bigger than the maximum price for defined delivery time.

Version History

Version	Version Interchange	Prepared By	Date
1.0	Day-Ahead Market User Manual v.1.0 is prepared.	Spot Market Department	30.03.2016