SEMOpx Auctions Training

Version 4.2

2022



SEMOpx Auctions Training

Agenda

- 1. ETS General overview
- 2. ETS Installation and technical requirements
- 3. ETS API overview
- 4. ETS Connection and security
- 5. ETS Trading Functionalities
- 6. ETS Trading on behalf forms (ToB)
- 7. ETS Reporting capabilities

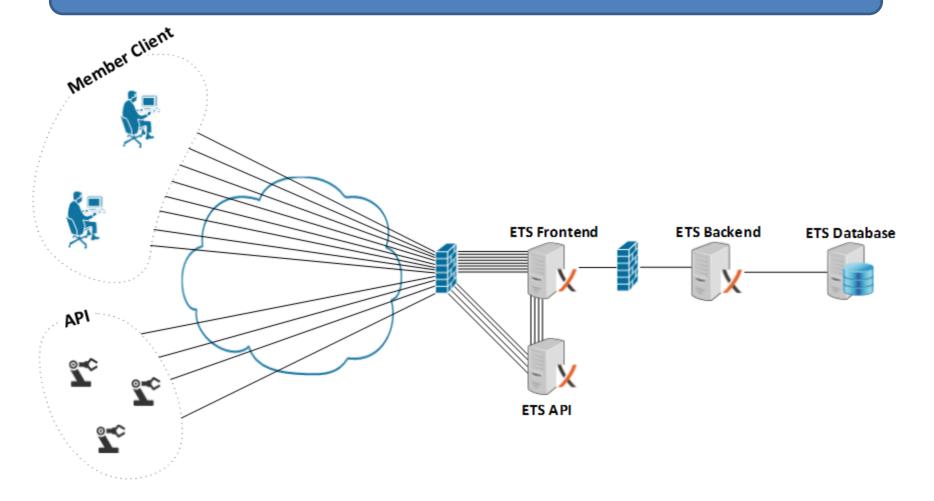


1 General Overview - Market overview

- EPEX Trading System (ETS) for Day-ahead auction and Intraday auctions
- Portfolio will be set up and will correspond to the Unit ID
 - Used to submit orders
 - Retrieved in the result files



General overview - Technical overview - ETS





2 Installation and Technical requirements

ETS - Overview of ETS Trading System

- FAT Client, executable to be installed on the PC
- Two types of clients are available with two difference installation modes:
 - Upgradable per default 'install the application as Upgradable' is ticked.
 - Fixed: when there is a new version of the client, the participant will have to manually perform the upgrade.



ETS Installation recommendation – Upgradable version

The Upgradable Client is a full client, containing all program logic needed to perform trader actions. The Upgradable Client is able to update to the latest program logic and will automatically update itself to the latest version when such code becomes available.

This ensures the client software is always up to date without the need to manually download and install the newest version.

Please be informed that the upgradable client installation is ticked by default. In order to install the fixed version, the following option needs to be un-ticked during the installation

Click Next to install to the default folder or click Change to choose another.
Install ETS Client for SEMOpx (version) to:
C:\Program Files (x86)\ETS Client for SEMOpx(version)\
Change
Install the application as Upgradable.
Back Next Cancel

Please note that it is not possible to install both the Fixed and the Upgradable versions at the same time on the same machine.

ETS - Minimum technical requirements for ETS client

Recommended system requirements for the client computer:

- Intel Dual Core or equivalent processor,
- 2048 MB internal memory,
- 100 Mb of free Hard Disk space.
- Each upgradable client version collected from the exchange server is locally stored, requiring approximately an additional 15Mb per version.

Supported operating systems:

- Windows7 Professional or Ultimate, latest service pack
- Windows8 Professional or Enterprise, latest service pack
- Windows10 Pro or Enterprise, latest service pack
- MS Excel 2010, 2013
- Please note that MS Excel Viewer is not supported.

Network settings:

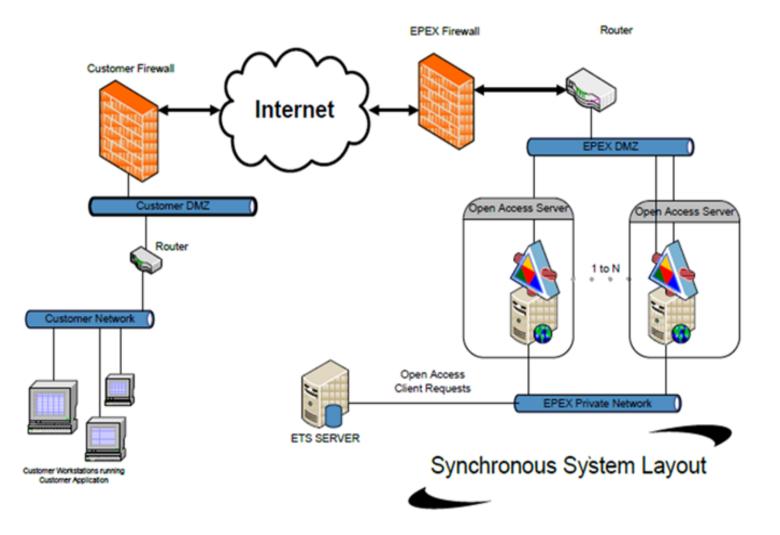
- EPEX Spot Trader Client requires a stable Internet connection.
- Recommended minimum connection speed is 256Kbit/s or better.
- All traffic is TLS encrypted.

Proxy support

 The EPEX Spot Trader Client does support connecting to an exchange using HTTP CONNECT proxy servers.



3 API Overview - ETS API





ETS API

- Is a Soap Web services
- Is secured using 2 ways authentication (TLS 1.2 + Server and Client certificate)
- Require a User and password to connect
- Allow Synchronous request like
 - Send order
 - Update order
 - Delete order
 - Retrieve order
 - Retrieve Market Results



4 Connection and Security - Starting the ETS the first time

Before a connection can be made to the servers, the Network Settings need to be defined.

After installation, the default Server Address and Server Port require modification into the settings provided by the exchange. For more information, please see latest release <u>here</u>. Enter the network details (server address, port and gateway):

44
44
4
(



ETS Secure connection

Default secure connection

The Trader Client connects using TLS 1.2 with the Exchange server. Default this is set to enabled.

Proxy connection

The Trader Client can connect over a proxy server that needs authentication and supports the use of HTTP CONNECT proxy.

The authentication protocol that is supported is the 'http basic authentication' standard, no other authentication protocols are currently implemented.

More technically: The proxy protocol used is the 'http CONNECT tunnel' standard.

When the Trader Client connects to the proxy server it will pop-up a dialog box that requests the user name and password for proxy server access.

It is possible to fill in the user name in the ETS trade client settings panel, so that the proxy user name does not need to be typed into the dialog every time a trader logs in.

In order to activate HTTP CONNECT Proxy Settings, enable the corresponding checkbox in the Global Settings.

Limit the IP address

Upon request, the exchange can restrict the connection to specific IP addressed.

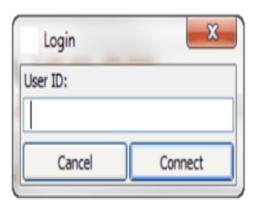
Firewall configuration

If your firewall implements packet inspection, you may need to disable this functionality for ETS. Some packet inspection system don't support the ETS implementation of TLS 1.2.



ETS - Users and passwords

- User IDs (logins) and passwords are not linked to traders. A User ID can be shared among several traders of a company (but not at the same time). It is the company's responsibility to decide if the password of a User ID can be shared among several traders or if a User ID is to be used only by one of them.
- Initial passwords are valid 7 days and they must be changed in order to extend their validity to 3 months.
- There is a specific login for the production environment and another one for the simulation environment.



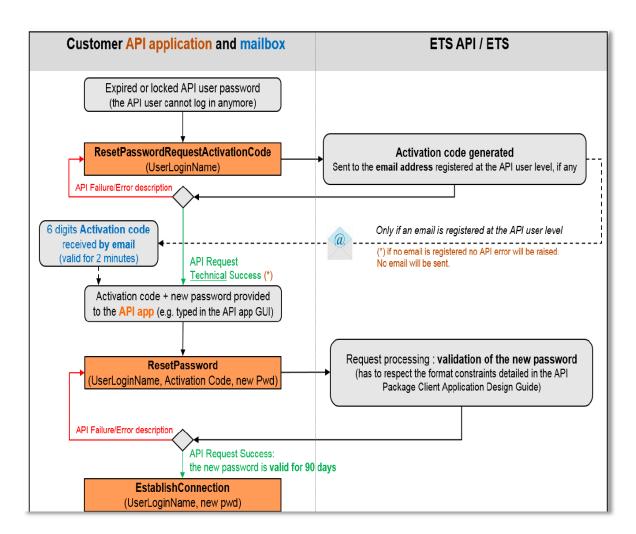
Be aware that you have a maximum of three attempts to enter a correct password.

After the third invalid attempt, your User ID will be blocked from access until the exchange operator resets your User ID.

Upon written request (email), the exchange can either reset the tries left (so the current password remains valid) or provide a new password by email. The request should come only from an authorized trader.



ETS – Password reset



Users are also able to change forgotten, expired or locked passwords through the client. From the main welcome screen, select 'change password' feature and user will get a validation code via email to enter the new password.

Users can then handle their password reset autonomously without contacting SEMOpx Market Operations. In order to activate this functionality, please make sure to provide Market Operations with the email address(es) to be associated with your respective ETS user(s).



ETS Connection to the upgradable client

Once you enter your User ID, click on the Connect button or press ENTER.

The Upgradable Client will perform a version check.

One of two things can happen, depending on the availability of newer versions:

Option 1:

If no newer version is detected, the login sequence will proceed after which the Main Tool will be presented.

Option 2:

If a newer version is detected, the newer version is automatically fetched from the exchange server. This is indicated with the 'Fetching update for' message.



The newest version will be downloaded automatically, and installed. Depending on the internet speed and size of the download, this process can take a short while.

This procedure requires a restart of the Upgradable Client once to execute the update, for which you will be prompted in a dialog.



5 ETS Trading Functionalities - Topics

• General

Welcome screen ETS General Settings ETS Trader Client Settings

• ETS Market Global View

Order management

Enter linear (stepwise) order Enter linear orders for several days at a time Modify order and check for differences Cancel Linear Order Enter Complex Order Modify Complex Order Cancel Complex Order

- Define Reasonable Control Parameters
- Check Trading Limits



ETS Welcome Screen

The Trader Client is the trading interface screen of the exchange environment. The Trader Client displays the modules that are available to the user that is logged in.



From left to right, the launcher above displays the (Dis)Connect, Global View, Client Message Book, Financial Book, Settings and Change Password icons.

The connection state bar at the bottom of the launcher indicates you are logged in and to which server-environment.

The clock to the right displays the exchange server time, modified to your local time setting. This clock will not necessarily be identical to the time of your local computer. The clock settings can be configured in the Time Zone settings.



ETS General Settings

SEMOPX	×		Settings Bo define cus gs.				
	Modules Settings (Set	tings)					a 🗟 🖬
TCOMAZE-U01@uat2.ets2.epex.spot:443 🛛 1	0:51 Cle Figmat Window to			-			10000000
	Harket Global View Preferred Market Area None Order Estry Screen	ket Global View Market Res. P S Classure	referred Area Kone	Proferred For None	ion	Preferred Date Typ	je v
	Close Block Order	Entry screen automatically a Entry screen automatically af der Entry screen automatically	ter submission	Show co	nfirmation dialog before nfirmation dialog before	Linear Order submission Block Order submission Complex Order submission submitting order for next au	
	Warn when more r	in more recent portfolio versi ecent portfolio version is ava		Update s Warn wit	en more recent portfolio	nt portfolio version is availat	
	Auction			Indexes			
	Arro Sel SEM-DA SEM-IDA1 SEM-IDA2 SEM-IDA3	PWR-MRCO-1 PWR-SEM-GB-D-1 PWR-SEM-GB-D PWR-SEM-D	Should Propage		SEM-DA SEM-DA1 SEM-IDA1 SEM-IDA2 SEM-IDA3	Garreey	Dorafian
				None		None	Set Preferred
				Norie		None	 ✓ Set Preferred

semopx

a 8 1 semo

ETS Market Global View

The Market Global View is the main trading interface.

In the upper pane of this screen a user has overview of outstanding bids, and can access bid submission screens.

In the lower pane, under Messages: an overview is given of bid submissions and other bid status change messages, as well as the titles of operator messages.

Red coloured messages indicate important information, such as Password expiry, Market Result cancellation and the reception of an exchange message.

NAME OF TAXABLE	and the second se	al View - Factory View (Ep		ent.							lon0.
SEMOPX	Concession of the local division of the loca	ut Settings Window 19	ilp -								
1 100-1	Dey Type										-
ol <u>W</u> indow	Auction Day										- Oate P
	From Date		Autton Statu			Auction Name		Narket Area	Area	Participant	
iemo px	21/07/2017	0	Al	~ A3		- BA		~ A3	- IA	AR .	
	Delivery De		All V	All	Order Buck	All V	All	All 🛩 All	All V All V	idate Time Complex	All
the second s	22/07/2017	NE-SONE-DA	PART-TS01	A NAME OF A DESCRIPTION	OBK Closed	60 min	GBP	none	none	and the second se	Al
Global View 💌 🔂 🔘 🗝	22/07/2017	NI-SONI-DA	PART-1901	SEMO-DA-12.00 2017-07-21-12:00	OBK Closed	60 min	GBP	none	none	none	
	22/07/2017	NI-SONI-IDA1	PART-TSO1	SENO-IDA1-16.30 2017-07-21-16:30	OBK Open	30 min	GBP	none	rione	0006	
	22/07/2017	NI-SONI-IDA1	PART-TSO2	SEMO-IDA1-16.30 2017-07-21-16:30	OBK Open	30 min	GBP	none	none	none	
	\$ 21/07/2017	NI-SONI-IDA2	PART-TSO1		and the state of t	30 min	689	none	none	none	
OMAZE-U01@uat2.ets2.epex.spot:443	£ 21/07/2017	NI-SONI-IDA2	PART-TS02	SEMO-IDA2-09.00 2017-07-21-09:00	OBK Closed	30 min	GBP	none	none	none	
and the second se	21/07/2017	NI-SONI-IDA3	PART-TSO1	SEMO-IDA3-15.00 2017-07-21-15:00	OBK Closed	30 min	GBP	none	none	none	
	21/07/2017	NI-SONI-IDA3	PART-TS02	SEMO-1DA3-15.00 2017-07-21-15:00	OBK Closed	30 min	GBP	none	none	none	
	22/07/2017	ROS-EIRGRID-DA	PART-TSOL	SEMO-DA-12.00 2017-07-21-12:00	OBK Closed	60 min	EUR	none	none	none	1.
	22/07/2017	ROS-EIRGRID-DA	PART-TS02	SEMO-DA-12.00 2017-07-21-12:00	OBK Closed	60 min	EUR	none	rione	none	
	22/07/2017	ROI-EIRGRID-IOA1	PART-TSO1	SEMO-10A1-16.30 2017-07-21-16:30	OBK Open	30 min	EUR.	none	none	none	
	22/07/2017	ROI-EIRGRID-IDAL	PART-TS02	SEMO-IDA1-16.30 2017-07-21-16:30	OBK Open	30 min	EVR	none	none	none	
	21/07/2017	ROI-EIRGRID-IDA2	PART-TSO1	SEMO-10A2-09.00 2017-07-21-09:00	OBX Closed	30 min	EUR,	nice	none	none	
	21/07/2017	ROS-EIRGRID-IDA2	PART-TS02	SEMO-10A2-09.00 2017-07-21-09:00	OBK Closed	30 min	EUR	none	none	none	_
	21/07/2017	ROI-EIRGRID-IDA3		SEMO-1DA3-15.00 2017-07-21-15:00	OBK Closed	30 min	EUR	none	none	none	1.
	21/07/2017	ROI-EIRGRID-IDA3	PART-TSO2	SEMO-IDA3-15.00 2017-07-21-15:00	OBK Closed	30 min	EUR	none	none	none	
and the second			1				<u> </u>				
and of commentioned t	()										
Logs of your actions +	Show Linear	Show Block Show Cr	implex Show	Market Results Show Indexes							
all market messages	Messages										
	Time			-Text							
eceived in ETS from	21 July 2017 21 July 2017			Cancelled Block Bid(s) FA							
eceived in Li O nom	21 July 2017			Submitted Block Bid(s) IV Cancelled LinearOrder PA							
he Evelenne Market	21 July 2017			Submitted LinearOrder PA							
he Exchange Market	21 July 2017			Submitted LinearOrder PA							
	21 July 2017			Submitted LinearOrder PA							
Operations											
- Personal and the second s											

Order Descriptions

Linear order description

A linear order is a set of linear curves. A linear curve is a set of (price, quantity) combinations defined for a (period, area) combination. For each of these periods, the linear order is related to a curve which defines for each price between the minimum price (Pmin) and maximum price (Pmax) of the market willingness to buy or sell a certain amount.

- the price is defined in settlement currency
- Pmin and Pmax are specific to the area for which the order is submitted

Stepwise linear orders

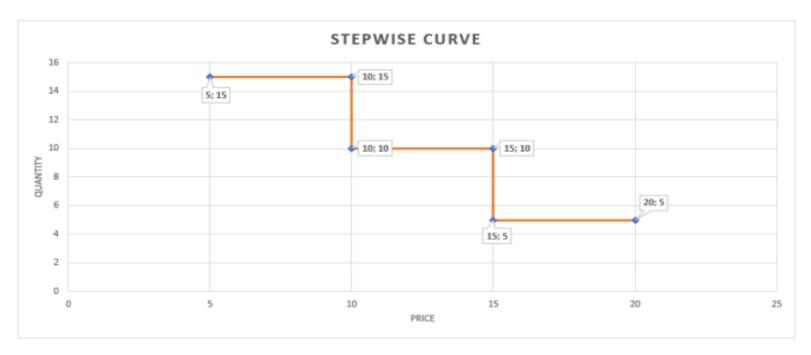
<u>Definition</u>: A stepwise order is defined by n (price, quantity) couples between the minimum price (Pmin) and the maximum price (Pmax): [(Pmin,Q1), ..., (Pmax, Qn)]

• For any couple (Pi,Qi), (Pi+1,Qi+1) within this list we have either: o Pi < Pi+1 and Qi = Qi+1 or o Pi = Pi+1 and Qi > Qi+1 excluding Pmin, Pmax Purchase quantities are indicated with positive values (Q>0). Sale quantities are indicated with negative values (Q<0).

Illustration

The below example illustrates the stepwise curve for an Area = X, Portfolio = P1, and Period = 1:

PRICE	5	10	10	15	15	20
QUANTITY	15	15	10	10	5	5



Stepwise linear order submission

er - 60 Jomit Se	min weral Delivery Days	Pmin		Prices			Pmax		
Comme		T							
			10.0	10.0	20.0	20.0	4 000 0		
nment	Period (cet/cest) 00 - 01	15.0	15.0	10.0	10.0	0.0	4,000.0		
	01 - 02	20.0	20.0	15.0	15.0	5.0	5.0	Quantities	
	02 - 03	2010	2010	40.0	10.0	010	010		
	03 - 04								
	04 - 05								
	05 - 06								
	06 - 07								
	07 - 08								
	08 - 09								
	09 - 10								
	10 - 11								
	11 - 12								
	12 - 13								
	13 - 14								
	14 - 15								
	15 - 16								
	16 - 17								
	17 - 18								
	18 - 19								
	19 - 20								
	20 - 21								
	21 - 22								
	22 - 23								
	23 - 00								
	Sum	35.0	35.0	25.0	25.0	5.0	5.0		

der - 100000	02674803 - 60 m	nin	generated					
Submit Several	Delivery Days							
er Comment								
omment Pe	riod (cet/cest)	-500.0	10.0	10.0	20.0	20.0	4,000.0	
	00 - 01	15.0	15.0	10.0	10.0	0.0	0.0	
	01 - 02	20.0	20.0	15.0	15.0	5.0	5.0	
	02 - 03							
	03 - 04							
	04 - 05							
	05 - 06							
	06 - 07							
	07 - 08							
	08 - 09							
	09 - 10							
	10 - 11							
	11 - 12							
	12 - 13							
	13 - 14							
	14 - 15							
	15 - 16							
	16 - 17							
	17 - 18							
	18 - 19							
	19 - 20							
	20 - 21							
	21 - 22							
	22 - 23							
	23 - 00							
	Sum	35.0	35.0	25.0	25.0	5.0	5.0	

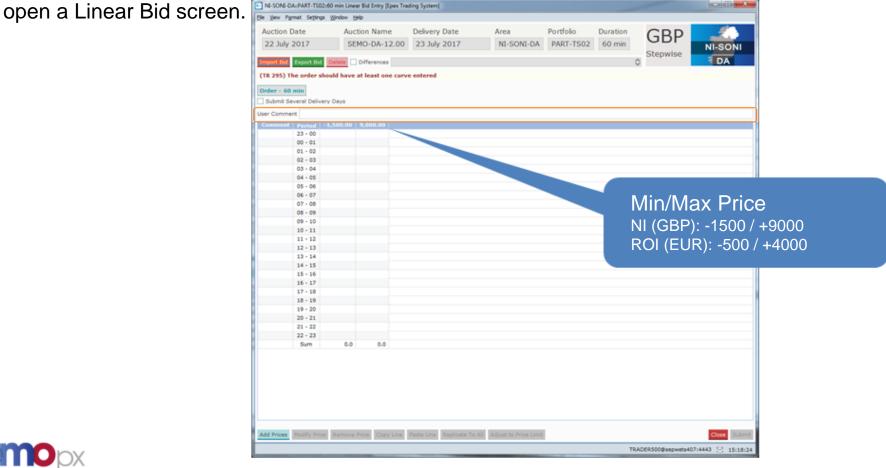
ETS API

The ETS API enables to handle linear orders (stepwise): submit, modify, retrieve, or cancel orders. Please contact SEMOpx market operation or check the ETS API package for further information.

Enter linear (Stepwise order)

The Linear Bid Entry screen can be accessed via Market Global View under the doubleclick mouse action or Show Linear button of the Market Global View screen.

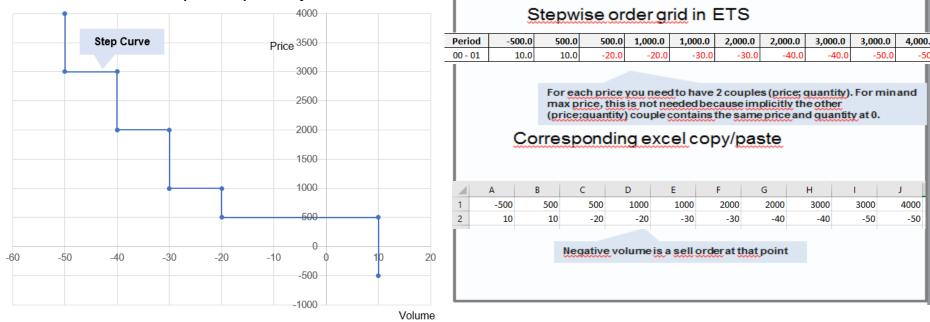
Alternatively, double-click the "Linear" or "Linear last update time" field if you wish to





ETS Stepwise Orders > order entry

- Minimum 2 (Price; Quantity) combinations per order
- A quantity (positive, negative or zero) must be entered at the price limits
- Positive: you buy
- Negative: you sell
- Zero: no action
- Orders are linear interpolated curves: The member's interest is assumed linear between two price/quantity combinations





ETS - Stepwise orders entry example

OK Except for min and max prices, each price must be inserted twice to allow a step curve.						(NOK	is miss	If one « double » price is missing, an error message appears				
Comment	Period	-500.0	30.0	30.0	4,000.0	Comment	Period	-500.0	30.0	30.0	4,000.0		
	00-01	50.0	\$0.0	40.0	40.0		00-01	50.0	40.0		40.0		
	01-02						01-02						
	02 - 03	-		-			02-03			-			
	03-04	(n					03-04			dermustb			
	04-05						04-05			urve. Quan			
	05 - 06						05-06	1		pe replicate vertical	010		
	06 - 07						06 - 07		segm	ents. Heret	he		
	07-08						07-08			is differen			
	08 - 09						08 - 09			on the left eates an e			
	09 - 10						09 - 10		well.	cutos un c			
	10 - 11						10 - 11						
	11 - 12						11 - 12						
							21-22 22-23 23-24 Sum	50.0	40.0	0.0	40.0		
						(TR 114) Illog	ical bid for hour: 00 -	01					



Example: Demand order

	-500	10	10	100	100	4000
1	30	30	20	20	10	10
2						
3						

- At a price of -500 I want to buy 30
- Between price -500 & 10 I want to buy 30
- At price 10 I want to buy between 30 & 20
- Between price 10 & 100 I want to buy 20
- At price 100 I want to buy between 20 & 10
- Between price 100 & 4000 I want to buy 10
- At price 4000 I want to buy 10, in case of curtailment the qty can be between 0 and 10

The quantity that will be allocated depending on the price in both cases is:

- At price 4000 the qty is between 0 & 10
- For a price between 4000 & 100 the qty can only be 10
- At a price 100 the qty is between 10 & 20
- For a price between 100 & 10 the qty can only be 20
- At a price 10 the qty is between 20 & 30
- For a price below 10 the qty is 30



Enter linear orders for several days

Auction Date 22 July 2017	Auct														
22 July 2017	Purce	ion Nam	e I	Delivery (Date		Area		Portfolio	o 1	Duration	GBP			
	SEM	MO-DA-1	2.00	23 July 2	2017		NI-SC	DNI-DA	PART-	TS02	60 min		NI-SONI		
Import Bid Export Bid	Delete	Differences										0	Stepwise	1	DA
No errors															
Order - 60 min															
Submit Several Deliver	y Days														
From 23/07/2017		0	To 31/0	7/2017			Q All	Monday To	Friday 3	Saturday T	o Sunday	Mon 🗹 T	ue 🔽 Wed 🗹	Thu 🗹 Fri [Sat Sun
User Comment															.1
Comment Period	1,500.00	-200.00	-200.00	-50.00	-50.00	0.00	0.00	100.00	100.00	200.00	200,00	9,000.00	N.		
23 - 00	200.0	200.0	100.0	100.0	0.0	0.0	-300.0	-300.0	-350.0	+350.0	-500.0	-500.0	1		
00 - 01	200.0	200.0	100.0	100.0	0.0	0.0	-300.0	-300.0	-350.0	+350.0	-500.0	-500.0	1		6
01 - 02	200.0	200.0	100.0	100.0	0.0	0.0	-300.0	-300.0	-350.0	-350.0	-500,0	-500.0	5		Possib
02 - 03	200.0	200.0	100.0	100.0	0.0	0.0	-300.0	-300.0	-350.0	-350.0	-500.0	-500.0	6		100
03 - 04	200.0	200.0	100.0	100.0	0.0	0.0	-300.0	-300.0	-350.0	-350.0	-500.0	-500.0	E.		to ente
04 - 05	200.0	200.0	100.0	100.0	0.0	0.0	-300.0	-300.0	-350.0	-350.0	-500.0	-500.0	1		buy an
05 - 06	200.0	200.0	100.0	100.0	0.0	0.0	-300.0	-300.0	-350.0	-350.0	-500.0	-500.0			
06 - 07	200.0	200.0	100.0	100.0	0.0	0.0	-300.0	-300.0	-350.0	-350.0	-500.0	-500.0			 sale or
07 - 08	200.0	200.0	100.0	100.0	0,0	0.0	-300.0	-300.0	-350.0	-350.0	-500.0	-500.0			
08 - 09	200.0	200.0	100.0	100.0	0.0	0.0	-300.0	-300.0	-350.0	-350.0	-500.0	-500.0			
09 - 10	200.0	200.0	100.0	100.0	0.0	0.0	-300.0	-300.0	-350.0	-350.0	-500.0	-500.0			
10 - 11	200.0	200.0	100.0	100.0	0.0	0.0	-300.0	-300.0	-350.0	-350.0	-500.0	-500.0			
11 - 12	200.0	200.0	100.0	100.0	0.0	0.0	-300.0	-300.0	-350.0	-350.0	-500.0	-500.0			
12 - 13	200.0	200.0	100.0	100.0	0.0	0.0	-300.0	-300.0	-350.0	-350.0	-500.0	-500.0			
13 - 14	200.0	200.0	100.0	100.0	0.0	0.0	-300.0	-300.0	-350.0	+350.0	-500.0	-500.0			
14 - 15	200.0	200.0	100.0	100.0	0.0	0.0	-300.0	-300.0	-350.0	-350.0	-500.0	-500.0			
15 - 16	200.0	200.0	100.0	100.0	0.0	0.0	-300.0	-300.0	-350.0	+350.0	-500.0	-500.0			
16 - 17	200.0	200.0	100.0	100.0	0.0	0.0	-300.0	-300.0	-350.0	-350.0	-500.0	-500.0			
17 - 18 18 - 19	200.0	200.0	100.0	100.0	0.0	0.0	-300.0	-300.0	-350.0	-350.0	-500.0	-500.0			
18 - 19	200.0	200.0	100.0	100.0	0.0	0.0	-300.0	-300.0	-350.0	-350.0	-500.0	-500.0			
20 - 21	200.0	200.0	100.0	100.0	0.0	0.0	-300.0	-300.0	-350.0	-350.0	-500.0	-500.0			
21 - 22	200.0	200.0	100.0	100.0	0.0	0.0	-300.0	-300.0	-350.0	-350.0	-500.0	-500.0			
22 - 23	200.0	200.0	100.0	100.0	0.0	0.0	-300.0	-300.0	-350.0	-350.0	-500.0	-500.0			
Sum	4,800.0	4,800.0	2,400.0		0.0	0.0	-7,200.0	-7,200.0	-8,400.0	-8,400.0		-12,000.0			



Modify order and check for differences

	Auctio	on Nam		elivery D	Inte		Area		Portfolio		Duration			-
								10.00	and so in the local division of				GBP	and a second
7	SEM	10-DA-1	2.00	24 July 2	017		NI-SO	NI-DA	PART-1	502	60 min		Stenwise	NI-SONI
nt Bid Dele	e 🕅 D	offerences	1									0		DA
Delivery Day	ys		•											
and 1,500	0.00	200.00	-200,00	-50.00	-50.00	0.00	0.00	100.00	100.00	200.00	200.00	9,000.0	9.	
		500.0	100.0	100.0	0.0	0.0	-300.0	-300.0	-350.0					
		500.0	100.0	100.0	0.0	0.0	-300.0	-300.0	-350.0					
				100.0	0.0	0.0								
		200.0	100.0	100.0	0.0	0.0			-350.0					
	001020	5,400.0	2,400.0	2,400.0	0.0	0.0	-7,200.0	-7,200.0	-8,400.0					
	rt Bid Delivery Day October 00 2 2 03 2 03 2 04 2 05 2 06 2 06 2 06 2 06 2 06 2 06 2 07 2 08 2 10 2 11 2 12 2 13 2 14 2 15 2 15 2 16 2 17 2 18 2 19 2 20 2 21 2 20 2 21 2 22 2 23 2 2	Image: state Image: state<	Image: style Image: style Image: style Delivery Days Differences Delivery Days Differences Differences Style Differences Style	Image: Second	Image: Second	Itelif Differences 1 Delivery Days 200.00 200.00 50.40. 500.00 00 500.0 200.00 100.0 100.0 0.0 00 500.0 500.0 100.0 100.0 0.0 01 500.0 200.0 100.0 100.0 0.0 03 200.0 200.0 100.0 100.0 0.0 03 200.0 200.0 100.0 100.0 0.0 04 200.0 200.0 100.0 100.0 0.0 05 200.0 200.0 100.0 100.0 0.0 05 200.0 200.0 100.0 100.0 0.0 06 200.0 200.0 100.0 100.0 0.0 10 200.0 200.0 100.0 100.0 0.0 11 200.0 200.0 100.0 100.0 0.0 13 200.0 200.0 100.0 100.0 0	Image: Section 2 Differences I Delivery Days Solution Solution	Itelat Differences 1 Delivery Days 2000 200.00 500.00 0.00 -0.00 00 500.00 500.00 100.0 100.0 0.00 -0.00 00 500.00 500.00 100.0 100.0 0.00 -0.00 01 500.00 200.0 100.0 100.0 0.00 -0.00 02 200.0 200.0 100.0 100.0 0.0 0.0 -300.0 03 200.0 200.0 100.0 100.0 0.0 0.0 -300.0 03 200.0 200.0 100.0 100.0 0.0 0.0 -300.0 04 200.0 200.0 100.0 100.0 0.0 0.0 -300.0 04 200.0 200.0 100.0 100.0 0.0 0.0 -300.0 05 200.0 200.0 100.0 100.0 0.0 0.0 -300.0 10 200.0 200.0 <td>Ht Bid Differences 1 Delivery Days 200.0 200.00 50.00 0.00 -0.00 100.00 -0.00 100.00 -0.00 100.00 0.00 -0.00 100.00 0.00 -0.00 100.00 0.00 -0.00 100.00 0.00 0.00 -0.00 100.00 0.00 0.00 -0.00 -0.00 100.00 0.00 0.00 -0.00</td> <td>Itelef Differences 1 Delivery Days 200,00 200,00 50,00 0.00 0.00 0.00 200,00 200,00 200,00 0.00 0.00 0.00 0.00 200,00 200,00 100,00 100,00 0.00 0.00 0.00 200,00 20</td> <td>Here Differences 1 Delivery Days Differences 1 Delivery Days Social Socia</td> <td>Rt Biol Differences 1 Delivery Days Store 04 200.</td> <td>Relif Contraction State Contraction State Contraction State Stat</td> <td>Carbon Stepwise Stepwise</td>	Ht Bid Differences 1 Delivery Days 200.0 200.00 50.00 0.00 -0.00 100.00 -0.00 100.00 -0.00 100.00 0.00 -0.00 100.00 0.00 -0.00 100.00 0.00 -0.00 100.00 0.00 0.00 -0.00 100.00 0.00 0.00 -0.00 -0.00 100.00 0.00 0.00 -0.00	Itelef Differences 1 Delivery Days 200,00 200,00 50,00 0.00 0.00 0.00 200,00 200,00 200,00 0.00 0.00 0.00 0.00 200,00 200,00 100,00 100,00 0.00 0.00 0.00 200,00 20	Here Differences 1 Delivery Days Differences 1 Delivery Days Social Socia	Rt Biol Differences 1 Delivery Days Store 04 200.	Relif Contraction State Contraction State Contraction State Stat	Carbon Stepwise Stepwise



TRADER500@sepwets407:4443 🖾 15:25:44

Cancel Linear Order

- Open existing order
- Click on delete
- Click on submit
- Deleted order is displayed in violet

jle ⊻jew Format	Settings Window Hel	p								
Оау Туре										
Auction Day										
rom Date		Auction Status	Auction Group	Aucti	on Name		Market	Area	Area	
22/07/2017	0	All	V All	✓ All			✓ All		✓ All	
Delivery Day	Area	Portfolio	Auction Date Time	Order Book Status	Duration	Currency	Linear	Last Update Time	Block	Last
All 🖌	All 🗸	Ali 🖌	All 🗸	All 🗸	All 🖌	All 🖌	All 🖌	All 🗸	All 🛩	All
23/07/2017	NI-SONI-DA	PART-TS01	SEMO-DA-12.00 2017-07-22-12:00	OBK Open	60 min	GBP	Deleted	21/07/2017 14:44:54	none	
23/07/2017	NI-SONI-DA	PART-TS02	SEMO-DA-12.00 2017-07-22-12:00	OBK Open	60 min	GBP	none		none	
23/07/2017	NI-SONI-IDA1	PART-TS01	SEMO-IDA1-16.30 2017-07-22-16:30	OBK Open	30 min	GBP	none		Exists	21/0
23/07/2017	NI-SONI-IDA1	PART-TS02	SEMO-IDA1-16.30 2017-07-22-16:30	OBK Open	30 min	GBP	none		none	
22/07/2017	NI-SONI-IDA2	PART-TS01	SEMO-IDA2-09.00 2017-07-22-09:00	OBK Open	30 min	GBP	none		none	
22/07/2017	NI-SONI-IDA2	PART-TS02	SEMO-IDA2-09.00 2017-07-22-09:00	OBK Open	30 min	GBP	none			
22/07/2017	NI-SONI-IDA3	PART-TS01	SEMO-IDA3-15.00 2017-07-22-15:00	OBK Open	30 min	GBP	none		. /	
22/07/2017	NI-SONI-IDA3	PART-TS02	SEMO-IDA3-15.00 2017-07-22-15:00	OBK Open	30 min	GBP	none		none	
23/07/2017	ROI-EIRGRID-DA	PART-TS01	SEMO-DA-12.00 2017-07-22-12:00	OBK Open	60 min	EUR	none		none	
23/07/2017	ROI-EIRGRID-DA	PART-TS02	SEMO-DA-12.00 2017-07-22-12:00	OBK Open	60 min	EUR	none		none	
23/07/2017	ROI-EIRGRID-IDA1	PART-TS01	SEMO-IDA1-16.30 2017-07-22-16:30	OBK Open	30 min	EUR	none		none	
23/07/2017	ROI-EIRGRID-IDA1	PART-TS02	SEMO-IDA1-16.30 2017-07-22-16:30	OBK Open	30 min	EUR	none		none	
22/07/2017	ROI-EIRGRID-IDA2	PART-TS01	SEMO-IDA2-09.00 2017-07-22-09:00	OBK Open	30 min	EUR	none		none	
22/07/2017	ROI-EIRGRID-IDA2	PART-TS02	SEMO-IDA2-09.00 2017-07-22-09:00	OBK Open	30 min	EUR	none		none	
22/07/2017	ROI-EIRGRID-IDA3	PART-TS01	SEMO-IDA3-15.00 2017-07-22-15:00	OBK Open	30 min	EUR	none		none	
22/07/2017	ROI-EIRGRID-IDA3	PART-TS02	SEMO-IDA3-15.00 2017-07-22-15:00	OBK Open	30 min	EUR	none		none	

Cancelled LinearOrder PART-TS02 / NI-SONI-DA / 60 min / 2017-07-23-10:00

Submitted LinearOrder PART-TS02 / NI-SONI-DA / 60 min / 2017-07-30-10:00

Submitted LinearOrder PART-TS02 / NI-SONI-DA / 60 min / 2017-07-27-10:00

Submitted LinearOrder PART-TS02 / NI-SONI-DA / 50 min / 2017-07-26-10:00

Submitted LinearOrder PART-TS02 / NI-SONI-DA / 60 min / 2017-07-25-10:00

Submitted LinearOrder PART-TS02 / NI-SONI-DA / 60 min / 2017-07-24-10:00

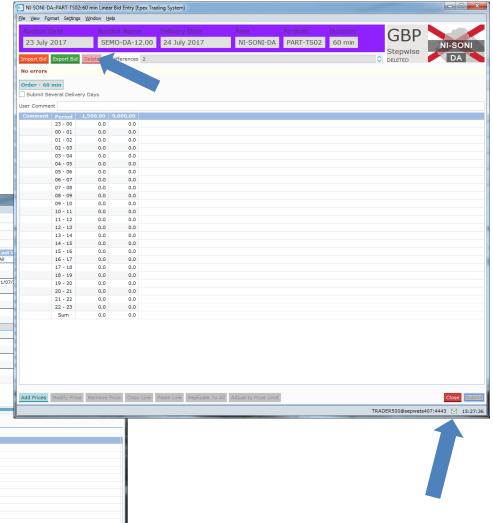
Submitted LinearOrder PART-TS02 / NI-SONI-DA / 60 min / 2017-07-23-10:00

Cancelled Block Bid(s) PART-TS01 / NI-SONI-IDA1 / 30 min / 2017-07-22-14:30

Submitted Block Bid(s) PART-TS01 / NI-SONI-IDA1 / 30 min / 2017-07-22-14:30 Cancelled LinearOrder PART-TS01 / NI-SONI-DA / 60 min / 2017-07-22-10:00

Submitted LinearOrder PART-TS01 / NI-SONI-DA / 60 min / 2017-07-22-10:00 Submitted LinearOrder PART-TS01 / NI-SONI-DA / 60 min / 2017-07-28-10:00

Submitted LinearOrder PART-TS01 / NI-SONI-DA / 60 min / 2017-07-22-10:00



TRADER500@sepwets407:4443 M 15:28:05



4essages: Time 21 July 2017 15:27:29

21 July 2017 15:24:49

21 July 2017 14:51:52

21 July 2017 14:49:44

21 July 2017 14:44:54 21 July 2017 14:44:39

21 July 2017 14:43:49 21 July 2017 14:43:49

Show Linear Show Block Show Complex Show Market Results Show Indexes

Enter Complex Orders

wish to open a Complex Bid screen for.

Global View - Factory View (Epex Trading System)		
Fyrnat Seglings gindow (940		
ay		Complex orders are not
Aution Status Aution Group		Area Participant
17 Q [AI V]AI		available for Intraday auctions
V Area Perfector Auction Date Tame Order Doo	All V All V All V All V All V All V	
17 NI-SONE-DA PART-TSOI SEMO-DA-12-00 2017-07-22-12-00 OBK Open 17 NI-SONE-DA PART-TSO2 SEMO-DA-12-00 2017-07-22-12-00 OBK Open	60 min GBP Deleted 21/07/2017 14:44:54 no 60 min GBP none no	
17 NI-SOND-IDA1 PART-TS01 SEMO-IDA1-16.30 2017-07-32-16:30 OBK Open	30 min GBP none Ex	xxxxx 22/07/2017 24/49/44 none
17 NI-SOND-IDA1 PART-TS02 SEMO-IDA1-16.30 2017-07-22-16:30 OBK Open 17 NI-SOND-IDA2 PART-TS01 SEMO-IDA2-09.00 2017-07-22-09:00 OBK Open		one cone
17 NJ-SONE-IDA2 PART-TS02 SEMO-IDA2-09.00 2017-07-32-09:00 OBK Open	30 min GBP none no	ora nora
17 NI-SOND-IDA3 PART-TS01 SEMO-IDA3-15.00 2017-07-22-15:00 OBK Open 17 NI-SOND-IDA3 PART-TS02 SEMO-IDA3-15.00 2017-07-22-15:00 OBK Open		one none
17 ROC-EIRGRID-CA PART-TSOI SENO-CA-12.00 2017-07-22-12:00 OBK Open 17 ROC-EIRGRID-CA PART-TSOI SENO-CA-12.00 2017-07-22-12:00 OBK Open		APR
17 R00-EIRGRID-DA PART-TS02 SEM0-DA-12.09 2017-07-22-12:00 OBK Open 17 R00-EIRGRID-IDA1 PART-TS01 SEM0-IDA1-16.30 2017-07-22-16:30 OBK Open		NI-SONI-DA-PART-TS01:60 min Complex Bid Entry [Epex Trading System]
17 R05-E1RGRID-10A1 PART-1502 SEM0-IDA1-16.30 2017-07-22-16:30 OBK Open 17 R05-E1RGRID-10A2 PART-1505 SEM0-10A2-09.00 2017-07-22-09-00 OBK Open		ona Bie View Figmat Settings Window Help
17 R01-EIRGRID-IDA2 PART-T502 SEMO-IDA2-09.00 2017-07-22-09:00 OBK Open	30 min EUR none no	
17 R00-E3RGRID-IDA3 PART-TS01 SEMO-IDA3-15.00 2017-07-22-15:00 OBX Open 17 R00-E3RGRID-IDA3 PART-TS02 SEMO-IDA3-15.00 2017-07-22-15:00 OBX Open		The second secon
ar war breaker was meetinger seminaris to as nev 22-15:00 OBK Open	ay man bun, none ho	25 July 201 SEMO-DA-12:00 26 July 201, NI-SONI-DA PART-IS01 60 min NI-SONI
		Stepwise
		Import Bid Export Bid Delete Differences 1 O ACTIVE
ser Show Block Show Complex Show Market Results Show Indexes		No errors
	•	Order - 60 min
017 15127129 Canceled LinearOrder PART-TS02 / N	-SOND-DA / 60 min / 2017-07-23-10:00	
	I-SOND-DA. / 60 min. / 2017-07-30-10-00	Submit Several Delivery Days
	I-SONE-DA / 60 min / 2017-07-27-30:00 I-SONE-DA / 60 min / 2017-07-26-30:00	Fixed Term Variable Term Scheduled Stop Period Increase Gradient Decrease Gradient
	1-SOND-DA / 60 min / 2017-07-25-10-00 1-SOND-DA / 60 min / 2017-07-24-10-00	1 0 3
	1-5040-0A / 60 min / 2017-07-24-10100 1-5040-0A / 60 min / 2017-07-23-10100	User Comment
	1-60A0-10A1 / 30 min / 2017-07-22-14/30 1-50A0-10A3 / 30 min / 2017-07-22-14/30	Comment Period -1,500.00 0.00 0.00 1,000.00 9,000.00 9,000.00
017 14:44:54 Cancelled LinearOrder PART-TS01 / N	-504-004 / 50 min / 2017-07-22-10:00	23 - 00 -1.0 -1.0 -5.0 -5.0 -100.0 -100.0
	1-SOND-DA / 60 min / 2017-07-22-30/00 1-SOND-DA / 60 min / 2017-07-28-30/00	00 - 01 0.0 0.0 -5.0 -5.0 -100.0 -100.0
	1-SOND-DA. / 60 min / 2017-07-22-10:00	01 · 02 0.0 0.0 ·5.0 ·5.0 ·100.0 ·100.0 Only Sell
		03 - 04 0.0 0.0 -5.0 -5.0 -100.0 -100.0 Order
		06 - 07 0.0 0.0 -5.0 -5.0 -100.0 -100.0
ne Complex Bid Entry	screen can be	07 - 08 0.0 0.0 -5.0 -5.0 -100.0 -100.0
ie complex blu Liluy	Screen can be	08 - 09 0.0 0.0 -5.0 -5.0 -100.0 -100.0
cessed via Market Gl	abol View under	09 - 10 0.0 0.0 -5.0 -5.0 -100.0 -100.0
cessed via market Gr	obal view under	10 - 11 0.0 0.0 -5.0 -5.0 -100.0 -100.0
a datable allate es		11 - 12 0.0 0.0 -5.0 -5.0 -100.0 -100.0 12 - 13 0.0 0.0 -5.0 -5.0 -100.0 -100.0
e double-click mouse	action or Show	12 - 13 0.0 0.0 -5.0 -100.0 -100.0 13 - 14 0.0 0.0 -5.0 -5.0 -100.0 -100.0
omplex button of the	Market Global	15 - 16 0.0 0.0 -5.0 -5.0 -100.0 -100.0
•		16 - 17 0.0 0.0 -5.0 -5.0 -100.0 -100.0
ew screen.		17 - 18 0.0 0.0 -5.0 -5.0 -100.0 -100.0
ew sureen.		18 - 19 0.0 0.0 -5.0 -5.0 -100.0 -100.0
		19 - 20 0.0 0.0 -5.0 -5.0 -100.0 -100.0
		20 - 21 0.0 0.0 -5.0 -5.0 -100.0 -100.0
		21 - 22 0.0 0.0 -5.0 -5.0 -100.0 -100.0 22 - 23 0.0 0.0 -5.0 -5.0 -100.0 -100.0
ternatively, double-clic	k the "Complex"	22 - 23 0.0 0.0 -5.0 -5.0 -100.0 -100.0 Sum -1.0 -1.0 -120.0 -120.0 -2,400.0 -2,400.0
•	•	
"Complex last update	a time" field you	
oompies ast updat	e ante nela you	Add Prices Modify Price Remove Price Copy Line Paste Line: Replicate To All Adjust to Price Limit Close Even



TRADER500@sepwets407:4443 🕑 09:54:49

Modify Complex Orders

	вс 🚠	▣ 🛃	12 🖂 🖂 🖾		z (o semo
Auction E 🗸	PWR-MRC-D~ 1 A	tion Date Ti April 2021 -	12:00 cet/cest 🖌 R01-	EIRGRID- V 60 nV	
mporcioral ac	port bio	Director			ACTIVE DA
Order -	60 m	aim			
Submit Sever	ral Delivery Days				
fixed Term	Variable Te		Schedule Stop Perio	ods Increase Gradient	Decrease Gradient
10.00	1		0 0	~	
	-		0 0	-	
Jser Comment					
Comment P	eriod (gmt/bst)	-500.00	4.000.00		
	23 - 00	-17.0	-17.0		
	00 - 01	-15.7	-15.7		
	01 - 02	-14.9	-14.9		
	02 - 03	-14.4	-14.4		
	03 - 04	-24.2	-14.1		
	04 - 05	-14.1	-14.1		
	05 - 06	-14.5	-14.5		
	06 - 07	-16.0	-16.0		
	07 - 08	-18.6	-18.6		
	08 - 09	-20.5	-20.5		
	09 - 10	-21.1	-21.1		
	10 - 11	-21.2	-21.2		
	11 - 12	-21.2	-21.2		
	12 - 13	-21.3	-21.3		
	13 - 14	-21.1	-21.3		
	14 - 15	-20.8	-20.8		
	15 - 16	-20.9	-20.9		
	16 - 17	-21.5	-21.5		
	17 - 18	-22.6	-22.6		
	18 - 19	-22.7	-22.7		
	19 - 20	-23.2	-23.2		
	20 - 21	-21.9	-21.9		

Following on from instructions on slide 26, choose complex order you wish to modify. Update the trading periods volumes/prices you wish to modify within the cell/s. Select "Differences" and then select "Submit".



Cancel Complex Orders

				Area			semo
	Auction Name Auction PWR-MRC-D 1 Apr				Portfolio Duratio Conv 60 nv		ROI-EIRGR
nport Bid 🕒	oport Bid Delete	Difference	1			 Stepwise ACTIVE 	
						HOTHE	
Inder -	60 min						
Submit Seve	ral Delivery Days						
ixed Term	Variable Terr	0	Schedule St	top Periods	Increase Gradient	Decrea	se Gradient
	1		0 0	order of determined in	~		
					-		
Jser Comment							
Comment	Period (gmt/bst) -		4,000.00				
	23 - 00 00 - 01	-17.0	-17.0				
	01 - 02	-15.7	-15.7				
	02 - 03	-14.4	-14.4				
	03 - 04	-14.1	-14.1				
	04 - 05	-14.1	-14-1				
	05 - 06	-14.5	-14.5				
	06 - 07	-16.0	-16.0				
	07 - 08	-18.6	-18.6				
	08 - 09	-20.5	-20.5				
	09-10	-21.1	-21.1				
	10 - 11	-21.2	-21.2				
	11 - 12	-21.2	-21.2				
	12 - 13	-21.3	-21.3				
	13 - 14	-21.1	-21.1				
	14 - 15	-20.8	-20.8				
	15 - 16	-20.9	-20.9				
	16 - 17	-21.5	-21.5				
	17 - 18	-22.6	-22.6				
	18 - 19	-22.7	-22.7				
	19 - 20	-23.2	-23.2				
	20 - 21	-21.9	-21.9				

Following on from instructions on slide 26, choose the complex order you wish to delete. Select "Delete" and then select "Submit".



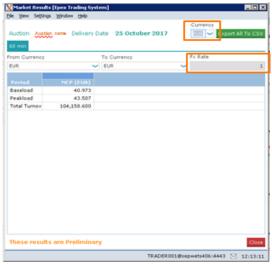
Market Results pop-up

Preliminary results (for coupled auctions only)

File View Settings Window Help Currency Auction Auction name: Delivery Date 25 October 2017 933 From Currency To Currency 0.880569308674593 EUR ✓ G8P Baseload 36.084 Peakload 38.315 104,158,600 Total Turnov These results are Preliminary TRADER001@sepwets406:4443 🖂 12:29:16 Market Results [Epex Trading Sys . IO X Ele Yew Settings Window Help Auction Auction name Delivery Date 25 October 2017 From Currency To Currency EUR. - GBP 0.880669308674593 Baseload 36.084 Peakload 30.315 Total Turnov 104,158,600 These results are Final

TRADER001@sepwets406:4443 🖂 12:25:45

- D X



Final results (for both coupled and local auctions)

		Currency	
to name Desivery D	25 October 2017		ALL TO C
	To Currency	Fx Rate	
~	EUR	~	
NCP (EUR)			
40.973			
43.507			
104,158.600			
	MCP (EUR) 40.973 43.507	EUR HCP (EUR) 40.973 43.507	To Currency Px Rate EUR 40.973 43.507



Define Reasonable Control Parameters

	11:03:27				
O User Reasonable Control P	arameters [Settings]				-0
Ele Figmat Window Help					
Global Settings Modul	es Settings Block Definitions	leasonable Control Parameters			Se
Reasonable Control Par	ameters				
				Imp	ort from Excel Exp
Area	Portfolio Duration	Volume difference at Pmin	Yolume difference at Pmax	Order side change at Pmin Orde	
NI-SONI-DA	COMPANYA-T01 60 min			~	
NI-SONI-IDA1	COMPANYA-T01 30 min			~	
NI-SONI-IDA2	COMPANYA-T01 30 min			~	
NI-SONI-IDA3	COMPANYA-T01 30 min			~	
ROI-EIRGRID-DA	COMPANYA-T01 60 min			~	
ROI-EIRGRID-IDA1	COMPANYA-T01 30 min			~	
ROI-EIRGRID-IDA2	COMPANYA-T01 30 min			~	
ROI-EIRGRID-IDA3	COMPANYA-T01 30 min			~	



Check Trading Limits

SEMOPX ol Window COMAZE-U01@uat2.etvZ.epex.spot:443 Financial Torre Limits Monitor - My view (Financial) Process					e a e
Trading Limit Day	Exchange		Central Counter Party		
24/11/2017	O] All	~ ~	Al	<u></u>	Reset Selections
Select Settlement Bember		Select Area		Al Al	<u>_</u>
		KI-SOM-DA KI-SOM-DA KI-SOM-IDA1 KI-SOM-IDA3 KO-EIRGRID-DA ROD-EIRGRID-DA ROD-EIRGRID-DA ROD-EIRGRID-IDA2 ROD-EIRGRID-IDA2 ROD-EIRGRID-IDA3			
Trading Limits					
	1 1		50 Clearin	In Ladrament Al Al V gflenber gflenber	
Trading Limit Usage Settlement Hember All All All All All All All All All Al	Perfolio Al				





SEMOpx - Trading on Behalf (ToB)

Trading of Behalf process allows SEMOpx members a fall back process to continue trading in the DAM and Intraday Auctions if their connection to the trading system (ETS) fails or the member experiences a technical problem that prevents them from placing orders.

In case of such issues, Excel backup forms are available <u>here</u> on the SEMOpx website.

Trading on behalf process **Process** DAM **IDA1** IDA2 IDA3 1. Complete DAM bidding NI IDA1 bidding NI & ROI **IDA2** bidding NI & ROI **IDA3 bidding NI & ROI** the required **DAM complex NI** IDA1 complex NI & ROI **IDA2** complex NI & ROI **IDA3 complex NI & ROI** excel form DAM bidding ROI **DAM complex ROI** 2. Email the completed form to*: marketops@ops.semopx.com. 3. You should immediately contact the Market Operation here by telephone, selecting option 1.

* Orders will be entered on members' behalf, on a best efforts' basis.

• SOBT: Submission on Behalf of Trading Tool was decommissioned on the 14th September 2021. For further information please see market message <u>here.</u>

SEMOpx - Trading on Behalf (ToB)

The following provides instructions on how to fill in the TOB forms:

1. Select the correct form based on the impacted auction (SEM-DA / SEM GB IDA1/SEM GB IDA2/SEM IDA3), per area NI/ROI, 25-Hours for Long Day DST or the ones for normal day.

• The ones for the normal day should be used for Short Day DST without filing in the impacted periods.

2. Fill in the trader name (**only authorized traders** are permitted to send a ToB form and request its submission) and the respective portfolio as well as the type of the order (new, modification of existing one or cancellation of existing one)) of an existing one)

FROM COMPANY			
Trader Name	NE	W BID	
ETS Portfolio name to be used	MC	ODIFY BID	
	CA	ANCEL BID	

3. Ensure that the auction (and area), the trading and delivery days are correct.

rea	SEM-GB-IDA1-ROI	Trading day	Delivery day	
		4 February 2022	5 February 2022	

4. Add prices and volumes carefully

			F	PRICES i	n EUROS	(with 1 decim	als) / VO	LUMES i	n MW (with 1 de	cimal)
PERIOD	-150,0	3000,0								
23:00-23:30										
23:30-00:00										
00:00-00:30										
00:30-01:00										
01:00-01:30										
01:30-02:00										
02:00-02:30										
~~ ~~ ~~ ~~										

• For Complex Orders (CO), please fill in the additional below fields:

Fixed Term	Variable Term	Schedule Stop Periods	Increase Gradient	Decrease Gradient	Comment

7 ETS Reporting capabilities

				Ble Ve	ew Format 5	Settings Window b	selp					1.1			
				Day Ty											
				Auctio											
				From D		Auctio	n Status	Auction	Group	Auction Name		Market Area			Part
				27/07		C All		All		All		All			
				Time	1.5.5.1.1	Order Back St	atus Duratu	n Currency	Linear	Last Update Time	Diucis	Last Undate Time	Complex	THE .	Mr. Lung
				Manual	~	All	∼ Al	- All -	All V			All	Al V	All	~
				2017-	07-27-12:00	OBK Closed	60 min	GBP	none		none		none		
				2017-	07-27-12:00	OBK Closed	60 min	GBP	none		none		none		1
				The second se			60 min	GBP	none		none		none		
				and the second s		OBK Closed	30 min	GBP	Exists	26/07/2017 10:47:36	Exists	26/07/2017 11:06:58			
				1-0-01010	7-27-16:30	OBK Closed	30 min	GBP	none		none		none		-//-
				10 Sec Concern	7-27-16:30	OBK Closed	30 min	GBP	none		none		none		
				and the second sec	7-27-16:30	OBK Closed	30 min 30 min	GBP	none		none		none	-	9
				<	1-21-03:00	ook open	ay min	GOP	none		none		none		
Austion Day	Area Set		Aurt	ion Name	5	Area		Duration		Participant	Portfol	in	urrency	-	
From Date 27/07/2017	Area Set			on Name NoID-16.30		Area NI-SONI-IDA1	Ų	Duration 30 min	~	Participant A2A	Portfol A2A-1		urrency SBP	>	
From Date	SEMO IDAL	xport Al	V Sen					30 min							
From Date 27/07/2017	SEMO IDAL	kport Al	V Sen	noID-16.30	~	NI-SONI-IDA1			-101	AZA		r01 🗸	58P	~	sepwets411
From Date 27/07/2017	SEMO IDA1 Export Single To CSV	kport Al	V Sen		~	NI-SONI-IDA1		30 min	1-TO1 Blo				SBP	~	sepwets411
From Date 27/07/2017 Export To Exc	SEMO IDA1 Export Single To CSV		Sen	voID-16.30 Total Schedu	√ Ie	NI-SONI-IDA1	i ar Schedule	30 min ortfolio: A2/ le Ref	1-101 Blo	A2A .	A2A-1	Complex Schedu	SBP	~	sepwets411
From Date 27/07/2017 Export To Exc Period (CET	SEMO IDA1 Export Single To CSV Export Single To CSV HCP 1099.577762139338494	HEV 1.0	Sen	total Schedu	Ƴ Ie Sale	NI-SONI-IDA1	l ar Schedule Purchase Sa	30 min ortfolio: A7/ le Het 1 -1.0	A-TO1 Bio	A2A	A2A-1	Complex Schedu Purchase	SBP	~	sepwets411
From Date 27/07/2017 Export To Exc Period (CET 00:00 - 00:30	SEMO IDA1 Export Single To CSV E 1099.577762139338494 1099.577762139338494	нсv 1.0 1.0	Sen	Total Schedu Purchase 1.0	For Sinte 1.0	NI-SONI-IDA1	i ar Schedule Turchase S .0 0.1	30 min ortfolio: A77 le: Net i -1.0	1-T01 Blo 1	AZA Northead and a characterization of the characteriz	A2A-1	Complex Schedu Purchase 0.0 0 0.0 0	SBP	~	sepwets411
From Date 27/07/2017 Export To Exc Period (CET 00:00 - 00:30 00:30 - 01:00	 SEMO IDA1 Export Single To CSV HCP 1099.577762139338494 1099.577762139338494 1099.577762139338494 	HCV 1.0 1.0 0	V Sen	Total Schedu Purchase 1.0 0.0	fe Sale 1.0 1.0	NI-SONI-IDA1	ar Schedule Purchase 54 .0 0.1	30 min ortfolio: A2/ lle: 7(et) -1.0) -1.0) 0.0	1-T01 Blo 1 (A2A Ck Schedule Purchase Sale 0.0 1.0 0.0 1.0	A2A-1	Complex Schodu Purchase 5 0.0 0 0.0 0 0.0 0	58P	~	sepwets411
From Date 27/07/2017 Export To Exc D0:00 - 00:30 00:30 - 01:30 01:30 - 01:30 01:30 - 02:00 02:00 - 02:30	 SEMO IDA1 Export Single To CSV HCP 1099.577762139338494 1099.577762139338494 1099.577762139338494 1099.577762139338494 1099.577762139338494 	HCV 1.0 1.0 0 0	Sen 1 To CSV Net 0.0 0.0 0.0 0.0 0.0	Total Schedu Purchase 1.0 0.0 0.0 0.0 0.0	fe Sale 1.0 1.0 0.0 0.0 0.0 0.0	NI-SONI-IDA1	1 ar Schedule Purchase S .0 0.0 .0 0.0 .0 0.0 .0 0.0	30 min ortfolio: A2/ le 9ie -1.0 0 -1.0 0 0.0 0 0.0	t-TO1 Blo	A2A ck Schedule Parchase Sale 0.0 1.0 0.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	A2A-1	Complex Schedu Purchase 5 0.0 C 0.0 C 0.0 C 0.0 C 0.0 C	58P Sale 1.0 1.0 1.0 1.0	~	sepwets411
From Date 27/07/2017 Export To Exc Period (CET 00:00 - 00:30 00:30 - 01:00 01:00 - 01:30 01:30 - 02:00	SEMO IDA1 Export Single To CSV 1 1099.577762139338494 1099.577762139338494 1099.577762139338494 1099.577762139338494 1099.577762139338494 1099.577762139338494 1099.577762139338494	HCV 1.0 1.0 0 0	Sen 1 To CSV Net 0.0 0.0 0.0 0.0	Total Schedu Purchase 1.0 0.0 0.0 0.0	C Sale 1.0 0.0 0.0	NI-SONI-IDA1	1 ar Schedule Purchase SS .0 0.1 .0 0.1 .0 0.1	30 min ortfolio: A2/ le 9ie -1.0 0 -1.0 0 0.0 0 0.0	t-TO1 Blo	A2A Ck Schedule Parchase Sale 0.0 1.0 0.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	A2A-1	Complex Schedu Purchase 5 0.0 0 0.0 0 0.0 0 0.0 0 0.0 0 0.0 0 0.0 0	58P Sale 1.0 1.0 1.0 1.0 1.0	~	sepwets411
From Date 27/07/2017 Export To Exc 00:00 - 00:30 00:30 - 01:30 01:50 - 02:30 02:30 - 03:30 03:00 - 03:30	SEMO IDAL Export Single To CSV P 1099.577762139338494 1099.577762139338494 1099.577762139338494 1099.577762139338494 1099.577762139338494 1099.577762139338494 1099.577762139338494 1099.577762139338494	HCV 1.0 1.0 0 0 0 0	Sen 1 To CSV Net 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	Total Schedu Purchase 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	C Sale 1.0 0.0 0.0 0.0 0.0 0.0 0.0	NI-SONI-IDA1	ar Schedule ar Schedule Purchase 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	30 min cortfolio: A2/ le Net -1.6 -1.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	1-701 Išlo 1 (1 (1 (1 (1 (1 (1 (1 (1 (1 (A2A Ck Schedule Forchose Sale 0.0 1.0 0.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	A2A-1	Complex Schedu Purchase 0.0 0 0.0 0 0.0 0 0.0 0 0.0 0 0.0 0 0.0 0 0.0 0	58P Sale 5.0 1.0 1.0 1.0 1.0 1.0 1.0	~	sepwets411
From Date 27/07/2017 Export To Exo 00:00 - 00:30 01:00 - 01:30 01:30 - 02:00 02:30 - 02:30 03:30 - 03:30 03:30 - 04:00	SEMO IDAL Export Single To CSV P 1099.577762139338494 1099.577762139338494 1099.577762139338494 1099.577762139338494 1099.577762139338494 1099.577762139338494 1099.577762139338494 1099.577762139338494 1099.577762139338494 1099.577762139338494 1099.577762139338494 1099.577762139338494 1099.577762139338494 1099.577762139338494	HCV 1.0 1.0 0 0 0 0 0	Sen 1 To CSV Net 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	Total Schedu Purchase 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	C S-10 S-10 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	NI-SONI-IDA1	i ar Schedule Purchase 5- .0 0.4 .0 0.4 .0 0.4 .0 0.4 .0 0.4 .0 0.4 .0 0.4 .0 0.4	30 min cortfolio: A2/ le Het -1.6 -1.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	1-701 Bio 1 (A2A ck.Schedule: Parchase Sale 0.0 1.0 0.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	A2A-1	Complex Schedu Purchase 5 0.0 0 0.0 0 0	58P	~	sepwets411
From Date 27/07/2017 Export To Exc 00:00 - 00:30 00:30 - 01:00 01:00 - 01:30 01:30 - 02:00 02:00 - 02:30 02:30 - 03:30 03:30 - 04:00 04:00 - 04:30	SEMO IDAL Export Single To CSV 0 1099.577762139338494	HCV 1.0 1.0 0 0 0 0 0 0 0	Sen To CSV Net 0.0 -1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	Total Schedu Purchase 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	C Sale 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	NI-SONI-IDA1	ar Schedule Purchase 5: .0 0.1 .0 0.4 .0 0.4 .0 0.4 .0 0.4 .0 0.4 .0 0.4 .0 0.4 .0 0.4 .0 0.4 .0 0.4 .0 0.4 .0 0.4 .0 0.4	30 min tortfolio: A2/ I.e Pice -1.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	I-TOI Blo I	A2A ck Schedule Parchase Sale 0.0 1.0 0.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	A2A-1	Complex Schedu Purchase 5 0.0 0 0.0 0 0	58P	~	sepwets411
From Date 27/07/2017 Export To Exc Period (CET 00:00 - 00:30 00:30 - 01:30 01:30 - 02:00 02:00 - 02:30 02:30 - 03:30 03:30 - 04:00 04:00 - 04:30 04:30 - 05:00	SEMO IDA1 Export Single To CSV 1 1099.577762139338494	HCV 1.0 1.0 0 0 0 0 0 0 0 0 0	Sen 1 To CSV 1 To CSV 1 To CSV 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	Total Schedu Purchase 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	ter Sate 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	NI-SONI-IDA1	ar Schedule Purchase 5: .0 0.1 .0 0.1 .0 0.1 .0 0.1 .0 0.1 .0 0.1 .0 0.1 .0 0.1 .0 0.1 .0 0.1 .0 0.1 .0 0.1 .0 0.1 .0 0.1 .0 0.1 .0 0.1 .0 0.1	30 min tortfolio: A2/ Ide Piet -1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	1-101 Bio 1 () 1 () 1 () 1 () 1 () 1 () 1 () 1 ()	A2A Parchase Sale 0.0 1.0 0.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	A2A-1	Complex Schedu Purchase 5 0.0 0 0.0 00000000	4e 560 560 560 560 560 560 560 560 560 560	~	sepwets411
From Date 27/07/2017 Export To Exc Period (CET 00:00 - 00:30 01:30 - 01:00 01:30 - 02:30 02:30 - 03:30 03:00 - 03:30 03:00 - 04:30 04:00 - 04:30 05:00 - 05:30	SEMO IDA1 Export Single To CSV 1 1099.577762139336494 1099.577762139336494 1099.577762139336494 1099.577762139338494	HCV 1.0 1.0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Sen 1 To CSV Ret 0.0 -1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	Total Schedu Purchase 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	ter Sale 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	NI-SONI-IDA1	Image: Schedule Purchase: S: .0 0.1 .0 0.1 .0 0.1 .0 0.1 .0 0.1 .0 0.1 .0 0.1 .0 0.1 .0 0.1 .0 0.1 .0 0.1 .0 0.1 .0 0.1 .0 0.1 .0 0.1 .0 0.1 .0 0.1	30 min Tortfolio: A2/ le 96 -1.6 -1.6 0.000 0.00	I-TO1 IBio I.	A2A ck Schodule Parchase Sale 0.0 1.0 0.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	A2A-1	Complex Schedu Purchase 5 0.0 0 0.0 0 0 0.0 0 0 0.0 0 0 0.0 0 0 0.0 0 0 0.0 0 0 0 0	4e 55% 55% 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	~	sepwets411
From Date 27/07/2017 Export To Exc 00:00 - 00:30 00:30 - 01:00 01:00 - 01:30 01:30 - 02:00 02:00 - 02:30 03:00 - 03:30 03:00 - 03:30 03:30 - 04:00 04:30 - 05:30 04:30 - 05:30 05:30 - 06:00	SEMO IDAL Expert Single To CSV 0 1099.577762139338494	HCV 1.0 1.0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	V Sen 1 To CSV Net 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	Total Schedu Purchase 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	Contraction (Contraction) Contraction (Contract	NI-SONI-IDA1	ar Schedule vorchase S vorchase S	30 min ortfolio: A2/ Ide Hee 1.6 -1.6 0 -1.0 0 0.0 0 0.0 0 0.0 0 0.0 0 0.0 0 0.0 0 0.0 0 0.0 0 0.0 0 0.0 0 0.0 0 0.0 0 0.0	1-701 Blo 1 () 1 () 1 () 1 () 1 () 1 () 1 () 1 ()	A2A Ck Schedule Parchase Sale 0.0 1.0 0.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	A2A-1	Complex Schedu Purchase 9 0.0 0 0 0.0 0 0	He Sale Sale 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	~	sepwets411
From Date 27/07/2017 Export To Exc 00:00 - 00:30 00:30 - 01:00 01:00 - 01:30 01:30 - 02:30 02:30 - 03:30 03:30 - 04:00 04:00 - 04:30 04:00 - 05:30 05:50 - 05:30 06:00 - 06:30	SEMO IDAL Expert Single To CSV 0 1099.577762139338494	HCV 1.0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Sen To CSV To CSV To CSV O.0 O.0	Total Schedu Purchase 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	Image: Scale Scale 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	NI-SONI-IDA1	ar Schedule Purchase S: .0 0.1	30 min ortfolio: A27 Ic 9/ce 0 -1.6 0 -1.6 0 0.0 0 0.0 0 0.0 0 0.0 0 0.0 0 0.0 0 0.0 0 0.0 0 0.0 0 0.0 0 0.0 0 0.0 0 0.0	1-T01 Bio 1 (A2A ck. Schedule: Parchase Sale 0.0 1.0 0.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	A2A-1	Complex Schedu Purchase 5 0.0 0 0.0 0 0	Le	~	sepwets413
From Date 27/07/2017 Period (CE1 00:00 - 00:30 00:30 - 01:30 01:30 - 02:30 01:30 - 02:30 02:30 - 03:30 03:30 - 03:30 03:30 - 03:30 04:00 - 03:30 04:30 - 05:30 05:30 - 05:30 06:00 - 05:30 06:30 - 07:00	SEMO IDAL Expect Single To CSV 0 1099.577762139338494	HCV 1.0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	V Sen 1 To CSV 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	Total Schedu Purchase 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	40 Sale 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	NI-SONI-IDA1	Image: Schedule: Purchase: 5: 0 0.1 .0 0.1	30 min tortfolio: A2/ I.e Pice -1.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	t-TOI Bio I	A2A Parchase Sale 0.0 1.0 0.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	A2A-1	Complex Schedu Purchase 5 0.0 0 0.0 0 0	Le Sale	~	sepwets411
From Date 27/07/2017 Export To Exc Period (CET 00:00 - 00:30 01:30 - 02:00 01:30 - 02:00 02:00 - 02:30 02:30 - 03:30 03:30 - 03:30 03:30 - 04:00 04:00 - 04:30 04:30 - 05:00 05:50 - 05:30 06:50 - 07:00 07:00 - 07:30	SEMO IDAL Export Single To CSV 1 1099.577762139338494	HCV 1.0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Sen Sen To CSV To CSV O	Total Schedu Purchase 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	40 Sale 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	NI-SONI-IDA1	Image: Schedule Purchase: S: 0 0.1 .0 0.1	30 min tortfolio: A2/ 1 -1.0 -1.0 0 -0.0 0 0.0 0 0.0	1-T01 Bio	A2A Parchase Sale O.0 1.0 0.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	A2A-1	Complex Schedu Purchase 5 0.0 C 0.0 C 0.	4e 561e 760 760 760 760 760 760 760 760 760 760	~	sepwets411
From Date 27/07/2017 Export To Exc Period (CET 00:00 - 00:30 00:30 - 01:30 01:30 - 02:00 02:00 - 02:30 02:30 - 03:30 03:30 - 04:00 04:00 - 04:30 04:30 - 05:00 05:00 - 05:30 05:30 - 06:00 06:00 - 06:30 07:00 - 07:30	SEMO IDAL Expect Single To CSV 0 1099.577762139338494	HCV 1.0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	V Sen 1 To CSV 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	Total Schedu Purchase 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	40 Sale 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	NI-SONI-IDA1	Image: Schedule: Purchase: 5: 0 0.1 .0 0.1	30 min tortfolio: A2/ 1 -1.0 -1.0 0 -0.0 0 0.0 0 0.0	1-T01 Bio	A2A Parchase Sale 0.0 1.0 0.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	A2A-1	Complex Schedu Purchase 5 0.0 C 0.0 C 0.	Le Sale		sepwets411
From Date 27/07/2017 Export To Exc 00:00 - 00:30 01:30 - 01:30 01:30 - 02:00 02:30 - 03:30 03:30 - 03:30 03:30 - 04:00 04:00 - 04:30 04:30 - 05:30 05:30 - 05:30 05:30 - 06:30 06:00 - 06:30 07:00 - 07:30 07:00 - 07:30	SEMO IDAL Export Single To CSV 1 1099.577762139338494	HCV 1.0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Sen Sen To CSV To CSV O	Total Schedu Purchase 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	40 Sale 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	NI-SONI-IDA1	Image: Schedule Purchase: S: 0.0 0.1 .0 0.1	30 min tortfolio: A2/ 1 -1.0 -1.0 0 -0.0 0 0.0 0 0.0	1-T01 Bio	A2A Parchase Sale O.0 1.0 0.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	A2A-1	Complex Schedu Purchase 5 0.0 C 0.0 C 0.	4e 561e 760 760 760 760 760 760 760 760 760 760		sepwets411