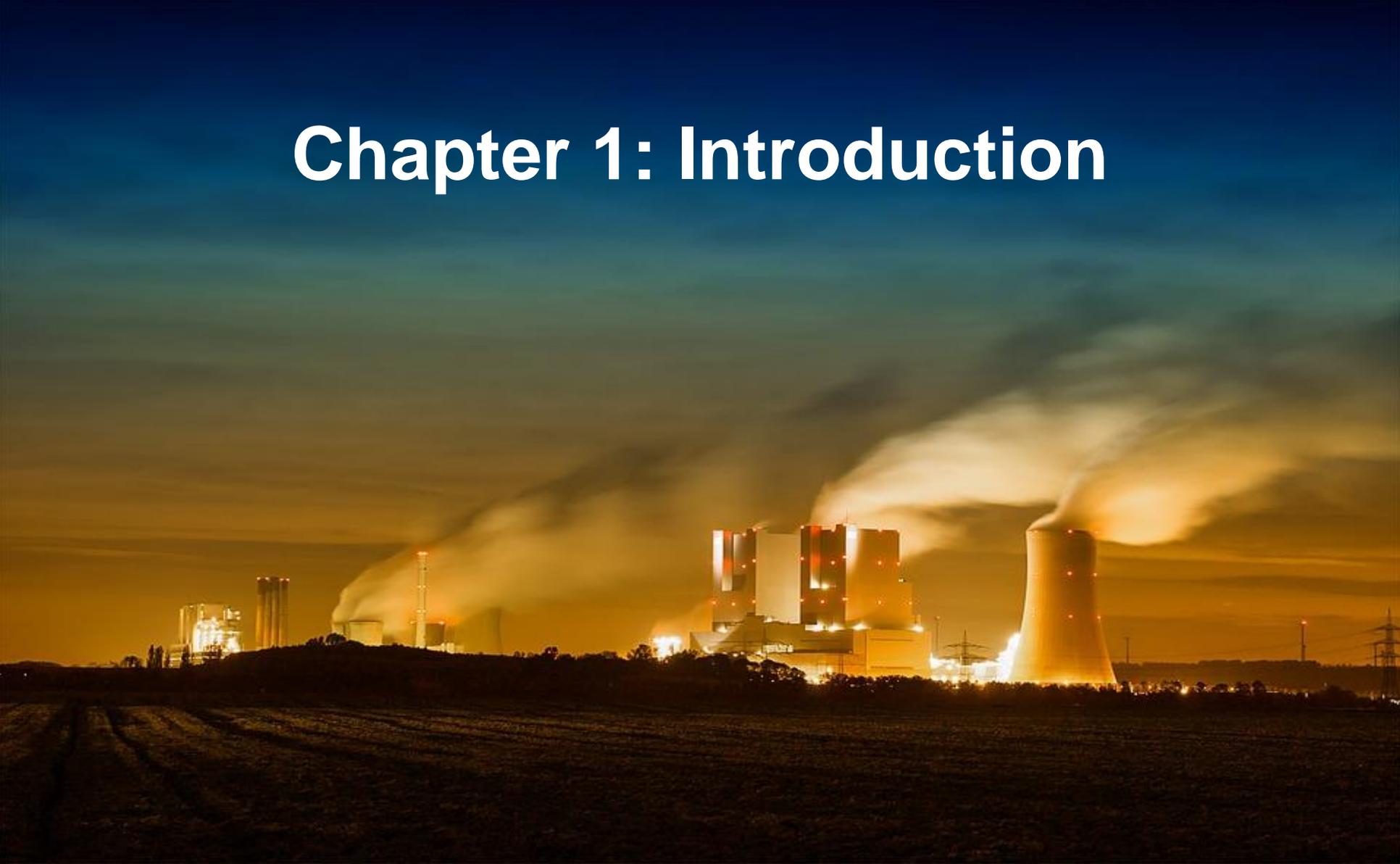


SEMOpX Registration

March 2021
Version 2

Chapter 1: Introduction



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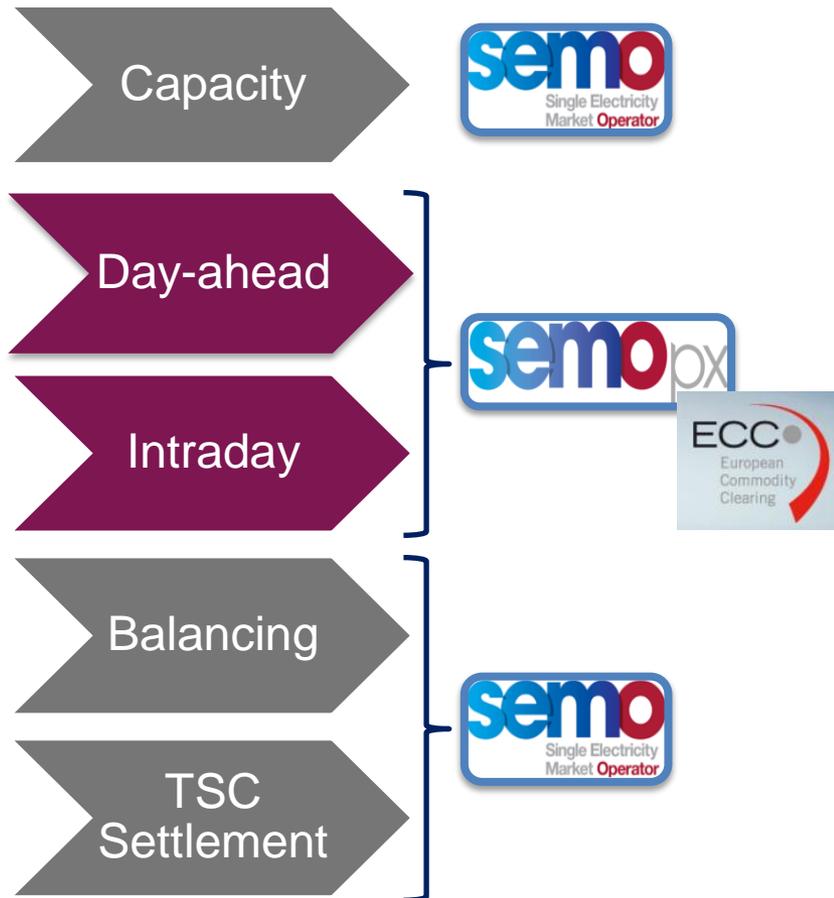
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Who to Register with?



The organisation to contact regarding registration for the Day Ahead and Intraday Markets is SEMOpX. For context, the organisations relevant for each of the I-SEM markets are shown also.

Overview – 1/2

Capacity

Day-ahead

Intraday

Balancing

TSC
Settlement

The focus of these slides is registration for the **SEMOpX** markets.

For simplicity, the term '**SEMOpX markets**' is used in this document to refer to the **Day Ahead Auctions, Intraday Auctions and Intraday Continuous market** as operated by SEMOpX, a designated Nominated Electricity Market Operator (NEMO) for the I-SEM.

Companies intending to trade in the Day Ahead and Intraday markets of the SEM must have registered units under the Trading and Settlement Code (TSC) first.

In addition, companies can also register to trade in the SEMOpX markets using units owned by other companies, where they have permission from the owner of the unit to do so.

Any contracted volumes from the SEMOpX markets that are not delivered or consumed are subject to imbalance settlement under the TSC.

Governing Rules

The SEMOpx markets are governed by a set of rules known as the [SEMOPx Rules](#). The SEMOPx Rules define obligations and responsibilities of the parties involved in the Day Ahead and Intraday Markets operated by SEMOPx, including registration, trading, and conduct.

As an accompaniment to the SEMOPx Rules, a set of [Operating Procedures](#) establish the detailed arrangements for trading on the Exchange.

ECC as the Clearing House for SEMOPx also have a set of [ECC Clearing Rules](#) which companies must agree to in order to settle and clear the trades completed on SEMOPx.

Chapter 2: Entity Model

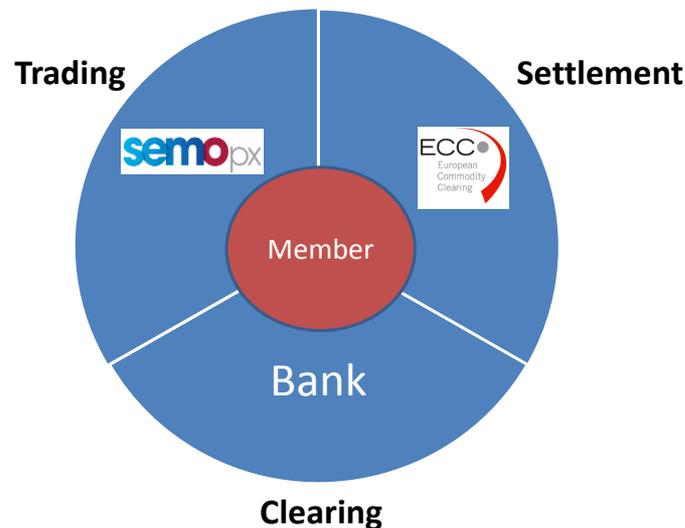


Parties Involved – 1/3

There are a four parties involved in setting up to trade in the SEMOpX markets. The parties facilitate different functions of the markets. The diagram on the right provides details of the parties and functions they facilitate.

Member is the company that is trading on the exchange. It can be the Participant trading under the TSC, or a 3rd Party which has been given the right to trade in the SEMOpX markets on behalf of the financially responsible Party under the TSC.

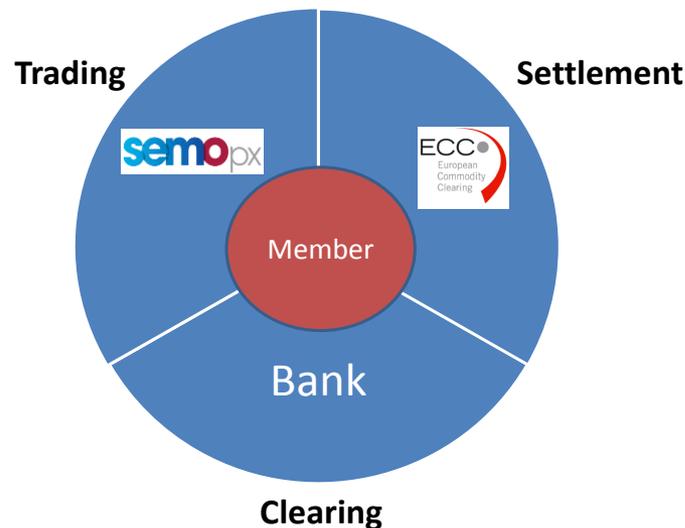
SEMOpX is the power exchange that provides facilities for members to trade Day Ahead and Intraday under the I-SEM arrangements. This includes the trading systems for the auctions and continuous trading. SEMOpX uses the services of EPEX who operate the trading systems on behalf of SEMOpX.



Parties Involved – 2/3

ECC is the clearing house that performs the settlement of completed trades from the SEMOpx exchange. ECC is also the central counterparty to each trade, meaning it is effectively buying from each member and selling to each member.

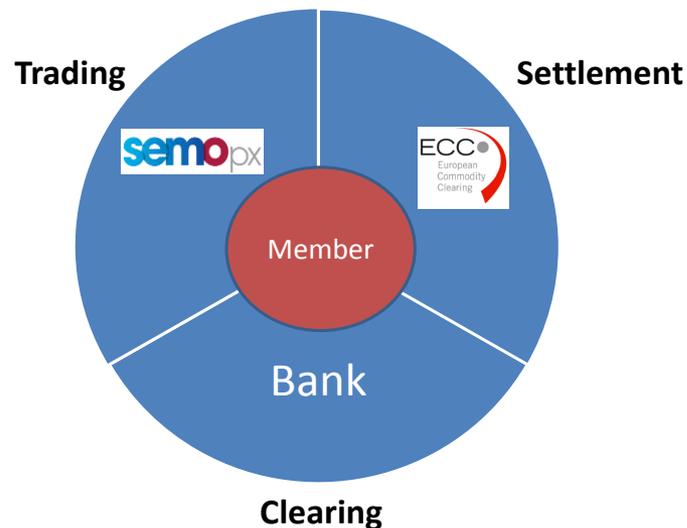
Banks are institutions that allow the transfer of funds (clearing) in the SEMOpx markets between the Member and ECC. They may also meet ECC's collateral requirements on behalf of the Member trading with SEMOpx.



Parties Involved – 3/3

For a company to participate in the SEMOpx markets, the company must:

- ✓ Register as a member with SEMOpx
- ✓ Register with ECC
- ✓ Contract a Bank to perform clearing with ECC
- ✓ Have the right to settle SEMOpx contracts against a unit registered under the Trading and Settlement Code.

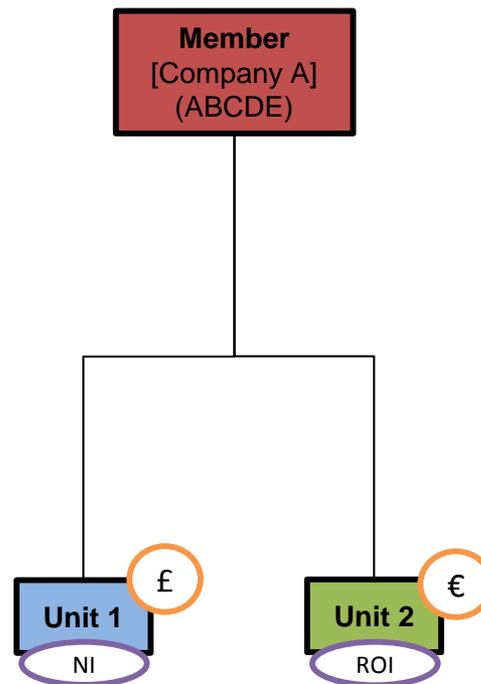


Entity Model – 1/2

The SEMOpX markets require the use of certain “entities” to represent a company and its units in the Day Ahead and Intraday markets. This allows the correct representation of the unit for the purposes of SEMOpX market trading, and ECC settlement and clearing.

The setup of these entities is referred to as the ‘SEMOpX Entity Model’.

The entities relevant to the SEMOpX markets are shown in the diagram below. A description of each is given on the next page.



Entity Model – 2/2

Entity	Description
Member	<p>The company that has acceded to the SEMOpx Rules and is thereby bound by the Rules. The same Member can trade for both units designated in Northern Ireland and Republic of Ireland jurisdictions. However, the currency of trading, settlement and invoicing will be based on the jurisdiction and market trading currency, with separate invoices for different currencies.</p>
Unit	<p>A generation, supply or other type of unit registered in order to allow trading and settlement of purchases and sales in the SEMOpx markets. The unit must be registered under the TSC before trading in the SEMOpx markets can begin. The naming convention for the SEMOpx units is the same naming used for the TSC and a unit registered in the SEMOpx markets will have the same ID as the unit under the TSC. The unit is the common link between the SEMOpx markets and the TSC. Any concluded trades from the SEMOpx markets are lodged against the same unit as part of the TSC imbalance settlement.</p> <p>A Member can only trade in the SEMOpx markets using units that are:</p> <ol style="list-style-type: none">1. Registered in the SEMOpx markets under their Member2. Registered under the TSC for imbalance settlement3. For which they have the right to settle contracts from the SEMOpx markets against:<ol style="list-style-type: none">a) Through being financial responsible for the units under the TSC (own unit), orb) Having the appropriate agreements in place with the TSC unit owner to use their unit (3rd Party)

Entity Model (Own Units) – 1/2

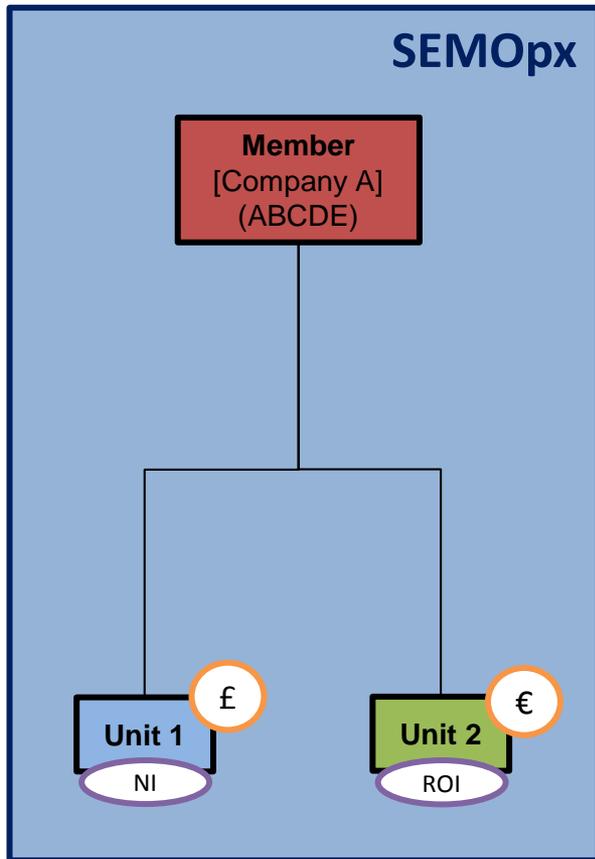
The diagram on the next page shows the SEMOpx entity model and compares this to the TSC entity model.



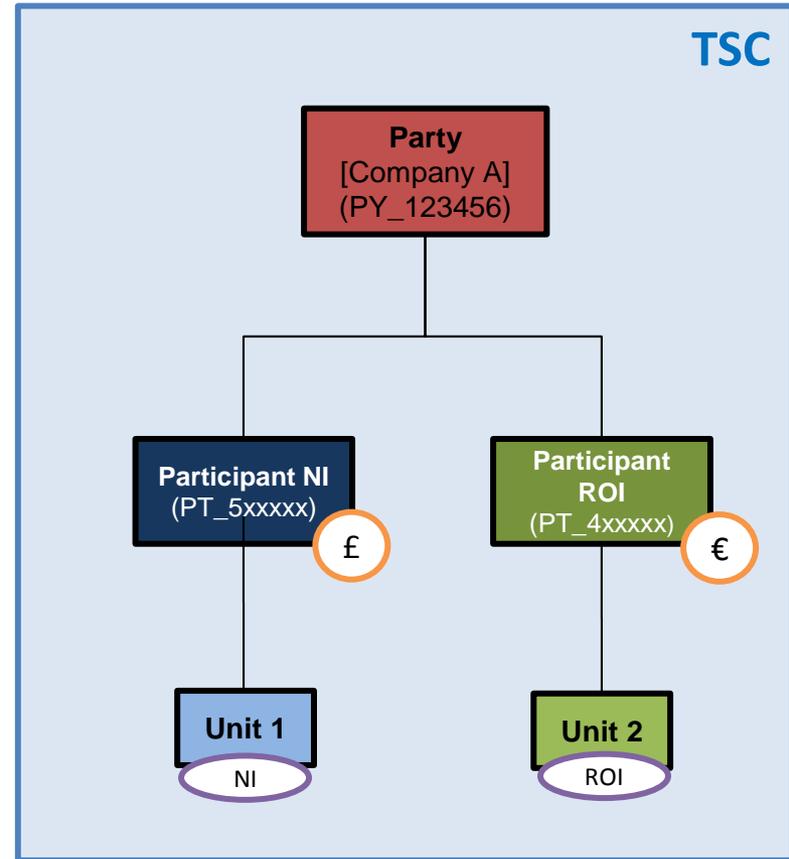
SEMOpx uses a single Member instead of the multiple Participants per jurisdiction for the TSC. The unit and unit IDs used for the SEMOpx and TSC are the same in both entity models.

The setup is also used for the scenario where a company is the financially responsible Party for the unit under TSC and also sets up the same company to trade in the SEMOpx markets for the unit. This is known as an **'Own Unit'** setup.

Entity Model (Own Units) – 2/2



↔
Equivalent



==
Equal

SEMOpX entity model compared with the TSC entity model for the same Company trading in both

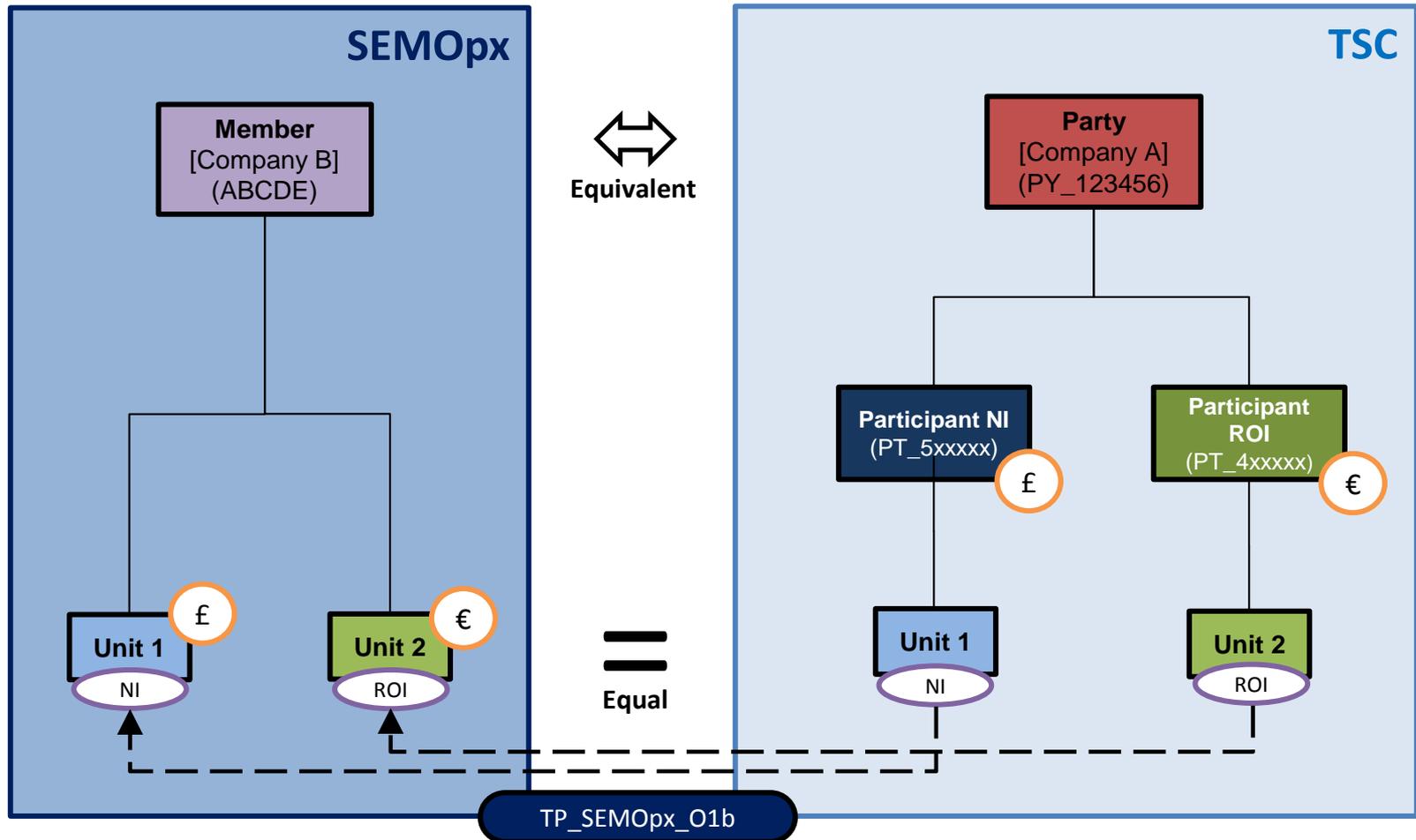
Entity Model (3rd Party Trading) – 1/3

There is also an option to have a **3rd Party** trade for a financially responsible Party of the units under the TSC, on their behalf in the SEMOpX markets.

All trades concluded in the SEMOpX markets are linked back to the TSC for imbalance settlement of the unit.

The following illustrates an example of such a 3rd Party arrangement as it relates to the SEMOpX markets and the TSC.

Entity Model (3rd Party Trading) – 2/3



TP01b agreement in place to allow 3rd Party trading in SEMOpx markets by Company B using Company A's units

Entity Model (3rd Party Trading) – 3/3

A 3rd Party for the SEMOpx markets is similar in concept to the Intermediary used under the TSC and Capacity Market, whereby a 3rd Party takes financial responsibility for a unit in a given market. The extension to this concept is that the financially responsible Party under the TSC agrees to include these concluded trades from the SEMOpx markets as part of imbalance settlement of the unit under the TSC.

The financially responsible Party from the TSC and the 3rd Party in the SEMOpx markets are required by ECC to complete a **3rd Party Trading Agreement** (called a **TP_SEMOpx_01b**) agreement which confirms this relationship and the acceptance of the unit owner to include contracts from the SEMOpx markets as part of the Imbalance Settlement.

Entity Model (Other Detailed Examples)

There are further options in the SEMOpx entity setup based on the following considerations:

- Company trading itself in both SEMOpx and TSC
- 3rd Party trading in the SEMOpx markets on behalf of a unit owner in the TSC
- 3rd Party trading in the SEMOpx markets on behalf of multiple unit owners in the TSC
- 3rd Party trading in both the SEMOpx markets and TSC for a unit owner

If you have any questions on the options for setting up entities for SEMOpx feel free to contact registration@semopx.com.

Naming Convention

The naming convention for the SEMOpX Entity Model is provided below.

Entity	Naming Convention	Description
Member	nnnnnnnnnn (3-10 characters)	Means any company who is a party to the SEMOpX Framework Agreement and is thereby bound by the SEMOpX Rules, and shall include its successors and permitted assigns.
Unit	GU_nnnnnn, or DSU_nnnnnn, or SU_nnnnnn, or AU_nnnnnn, or TU_nnnnnn	The Unit ID for a unit in the SEMOpX markets must be the same exact naming as the TSC unit it represents. In the context of the SEMOpX markets there is no distinction between suppliers, generators and other types of units. They are all just units that can both buy and sell power in the SEMOpX markets.

Chapter 3: Registration Process

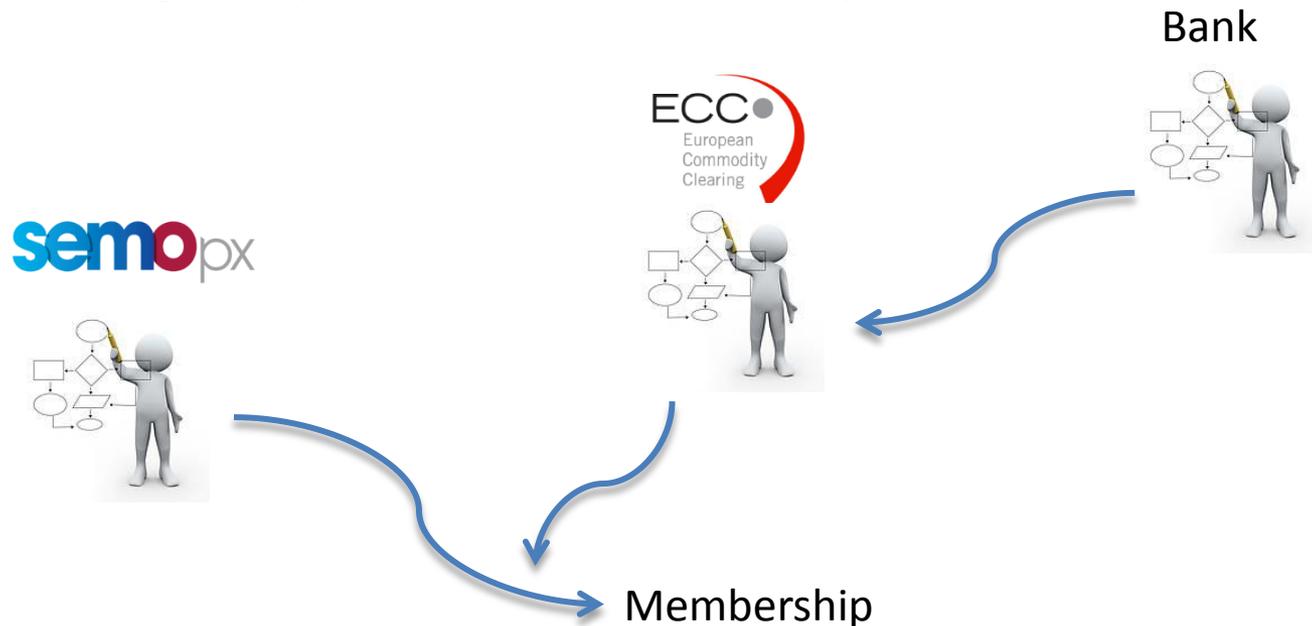


Overall Registration Process

Given there are three organisations involved in the registration for the SEMOpx, namely, SEMOpx, ECC and a Bank, each has its own registration processes and timelines.

All three processes need to be come together at the appropriate time to allow completion of the registration.

The following pages provide the registration processes for SEMOpx, ECC and a Bank, including details of the high level process and documentation required.



SEMOpX Registration

1

- Contact registration@semopx.com for the SEMOpX registration pack and return once completed (*Member Application, Unit Application, Users Application, Traders Application, REMIT Notification Form*) to registration@semopx.com
- *Assumption is that as part of their Balancing Market registration the company have already provided a latest Company Report

2

- SEMOpX review application documents and revert with a SEMOpX Accession Agreement
- SEMOpX contact ECC Member Readiness advising the details of the applicant
- If the Member has requested API access, SEMOpX contact them in relation to required Conformance Testing (a Non Disclosure Agreement (NDA) will need to be completed)

3

- On receipt of the signed copy of the SEMOpX Accession Agreement, EirGrid legal review and EirGrid and SONI execute
- On receipt of a REMIT Notification Form with ACER code, SEMOpX log ATS ticket requesting mapping for incoming Member

4

- SEMOpX confirm readiness with ECC (formal email with admission confirmation required)

5

- SEMOpX advise EPEX of Member set up details (in accordance with Member Management Business Process, sending Member Referential File via Ponton)
- SEMOpX advise the Member/Unit set up due to SEMOpX TradingOps
- SEMOpX progress updates in relevant Market Systems tables e.g. NEMO and advise all stakeholders (settlement, trading, managers)

6

- Members ensure that Trading Limits are set in SEMOpX
- Member is active to trade on SEMOpX markets
- SEMOpX confirm that two additional REMIT files (Auctions & Continuous) are received from EPEX for the first delivery date

ECC Registration

ECC is the **clearing house** that performs the **settlement of concluded trades** from the SEMOpX exchange.

ECC is also the **central counterparty** to each trade meaning it is effectively buying from each member and selling to each member, taking title and ownership of the trade during the transactions.

In order to settle and clear SEMOpX concluded trades , a company must be registered with ECC as a member.

A member must decide which model of clearing membership they wish to have.

- **Non-Clearing Member (NCM):** is a member that uses a Clearing Member as a guarantor and payment agent.
- **Direct Clearing Participant (DCP):** is a member that chooses to use a Settlement Bank as a payment agent but posts its own collateral with ECC. This membership option is intended to allow small and medium sized companies to participate without the need for a Clearing Member. Any trading by a DCP is pre-funded which restricts the exposures to available collateral.

ECC Registration (NCM vs DCP)

The table below summarises the ECC membership models and the implications of each:

	Non-Clearing Member (NCM)	Direct Clearing Participant (DCP)
Bank	Clearing Member	Settlement Bank
Guarantee Function	Yes, by Clearing Member	No, not needed as uses pre-trade limits
Limit	Voluntary, set by Clearing Member	Mandatory, set by ECC based on collateral posted by DCP
Prefunding	No, guaranteed by Clearing Member	Collateral provided by DCP to set trade limit
Collateral	Yes, posted by Clearing Member	Yes, posted by DCP
Default Fund Contribution	Yes, by Clearing Member	Yes, by DCP
Margining	Yes, cleared and future exposure considered	No, as pre-trade limits

ECC Registration Process

The general process for admission of a member to ECC is outlined below.

1

- Contract a Settlement Bank or Clearing Member

2

- Submit admission forms to ECC

3

- ECC reviews admission documents

4

- Technical setup of trading and clearing systems

5

- Admission as Direct Clearing Participant or Non-Clearing Member

ECC Registration Guide

The below guide includes checklists of required documents and explanations of the relevance of each document to the ECC registration processes. The guide also includes information on the SEMOPx registration forms.

4. ECC Application Checklist

In addition to registering with SEMOPx, there is a requirement to register with European Commodity Clearing (ECC) as either a Non-Clearing Member or Direct Clearing Participant. This allows the clearing and settlement of trades completed in the Day Ahead and Intraday Markets.

Not all forms or supporting information may be relevant to all membership applications. Details of the relevancy of documentation are provided in the checklist below and further details are provided in Section 5.

ECC's application forms can be found on the ECC website [NCM/DCP](#), or by contacting ECC or SEMOPx directly.

4 (a) Non-Clearing Member Checklists

The forms requiring completion as a Non-Clearing Member (NCM) are:

Document ID	Document Name	Relevance	Submission Format	
KYC	"Know your Customer" Questionnaire	Mandatory	Signed, scanned copy emailed to ECC	<input type="checkbox"/>
NCM01	Application for Admission as Non Clearing Member	Mandatory	Signed 1x original via ECC via registered post	<input type="checkbox"/>
NCM02	Non-Clearing Member Agreement	Mandatory	Signed triplicate (3x) originals to ECC via registered post	<input type="checkbox"/>
TP_SEMOPx_01a, or TP_SEMOPx_01b	Trading Participant in the Power Spot - Own Agreement, or - 3rd Party Agreement	Mandatory (at least one of TP01a or TP01b)	Signed, scanned copy emailed to ECC	<input type="checkbox"/>
TP07	VAT Details	Mandatory	Signed, scanned copy emailed to ECC	<input type="checkbox"/>
TP10	Setup of User IDs	Optional	Signed, scanned copy emailed to ECC	<input type="checkbox"/>
Supporting Information	Examples include: <ul style="list-style-type: none"> Certificate of Company Register Proof of Signatures Last 3 Annual Reports/Business Plan If member of VAT group: proof of VAT group Shareholder Structure 	As specified in the above applications forms	Scanned copies emailed to ECC	<input type="checkbox"/>

4 (b) Direct Clearing Participant Checklists

The forms requiring completion as a Direct Clearing Participant (DCP) are:

Document ID	Document Name	Relevance	Submission Format	
KYC	"Know your Customer" Questionnaire	Mandatory	Signed, scanned copy emailed to ECC	<input type="checkbox"/>
DCP01	Application for admission as a Direct Clearing Participant	Mandatory	Signed 1x original to ECC via registered post.	<input type="checkbox"/>
CM02	Clearing Agreement	Mandatory	Signed duplicate (2x) originals to ECC via registered post	<input type="checkbox"/>
TP_SEMOPx_01a, or TP_SEMOPx_01b	Trading Participant in the Power Spot - Own Agreement, or - 3rd Party Agreement	Mandatory (at least one of TP01a or TP01b)	Signed 1x original to ECC via registered post	<input type="checkbox"/>
TP07	VAT Details	Mandatory	Signed, scanned copy emailed to ECC	<input type="checkbox"/>
TP10	Setup of User IDs	Optional	Signed, scanned copy emailed to ECC	<input type="checkbox"/>
O09	Limit Adjustment Form	Mandatory but provided by ECC later, not as part of initial application	Signed, scanned copy emailed to ECC	<input type="checkbox"/>
O10	Cash Collateral Form	Mandatory but provided by ECC later, not as part of initial application	Signed, scanned copy emailed to ECC	<input type="checkbox"/>
SWIFT Agreement	SWIFT Agreement	Mandatory but provided by ECC later, not as part of initial application	Signed, 1x original to ECC via registered post.	<input type="checkbox"/>

Supporting Documents	Relevance	Submission Format	
Examples include: <ul style="list-style-type: none"> Certificate of Company Register Proof of Signatures Last 3 Annual Reports/Business Plan If member of VAT group: proof of VAT group Shareholder Structure 	As specified in the above applications forms	Scanned copies emailed to ECC	<input type="checkbox"/>

ECC Registration Forms (Specifics) – 1/2

The registration requirements for Non-Clearing Members and Direct Clearing Participants have similarities and differences. The table below illustrates the main documentation required by ECC for each type of membership.

Non-Clearing Member	Direct Clearing Participant
Submission of Know Your Customer Questionnaire	
Evidence of SEMOpX Membership Agreement	
Evidence of Unit registration under the Trading and Settlement Code	
NCM Agreement with ECC and Clearing Member	DCP Clearing Agreement with ECC
Clearing Member Agreement with Clearing Member	Settlement Agreement with Settlement Bank
Defined by Clearing Member	Confirmation of country of origin approved by ECC for Direct Clearing Participants
	Contribution to Clearing Fund depending on trading limit
	Pledged Settlement account in favour of ECC
	Power of Attorney for ECC to debit settlement account
	Deposit of Collateral
	Proof of minimum equity of 50k€ or bank guarantee or guarantee of a parent company

Registration Forms (Specifics) – 2/2

One of the most important elements of the registration is the “Know Your Customer” Questionnaire. This is required by ECC to ensure the legitimacy of the company seeking membership. This can take a number of months to complete (e.g. 3 months). **Therefore the timelines to complete this process should not be underestimated and the process should be started well in advance of the proposed trading start date.**

Clearing Member/Settlement Bank Registration

The choice of ECC membership, either Non-Clearing Member (NCM) or Direct Clearing Participant (DCP), determines the type of Bank the member must contract with to provide the clearing services between the member and ECC.

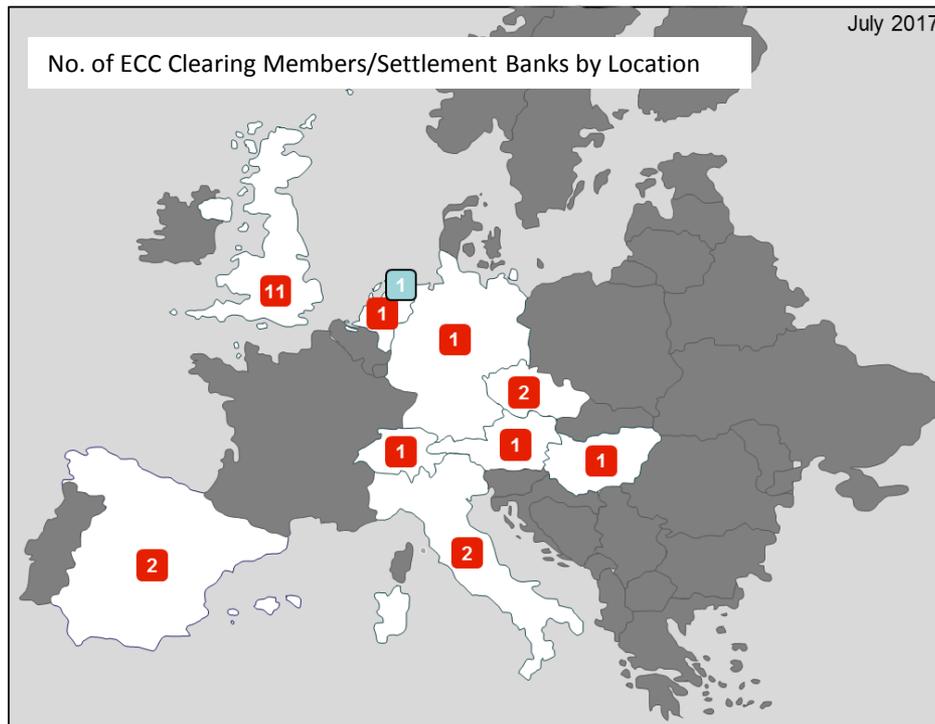
The table below summarises these options as they relate to SEMOpx.

	Non-Clearing Member	Direct Clearing Participant
Trading Exchange	SEMOpx	SEMOpx
Central Counterparty	ECC	ECC
Bank	Clearing Member	Settlement Bank

The process of contracting a Bank should be started several months in advance of the planned trading start date. The process itself often requires time to meet with Banks to discuss their offerings, make a decision on which Bank contract with, contract finalisation and the Banks own “Know Your Customer” processes. **Therefore the timelines to complete this process should not be underestimated.**

Available Clearing Members and Settlement Banks

There are a number of Clearing Members and Settlement Banks that hold licences with ECC. The list of these is provided on the right. ECC are continuously adding new Clearing Members and Settlement Banks. Please visit the ECC website for the latest listing and contact information for [Clearing Members](#) and [Settlement Banks](#).



Settlement Bank:

1. ABN Amro Bank N.V.

Clearing Members:

1. ABN AMRO Clearing Bank N.V.
2. Banca Akros SpA
3. Banca Popolare di Sondrio SCPA
4. Banco Santander, S.A.
5. Bayerische Landesbank
6. BNP Paribas Commodity Futures Ltd.
7. Citigroup Global Markets
8. ED&F Man Capital Markets Limited
9. Goldman Sachs International
10. INTL FCStone LTD
11. J.P. Morgan Securities plc.
12. KELER CCP Ltd.
13. Macquarie Bank International
14. Marex Financial Limited
15. Merrill Lynch International
16. Morgan Stanley & Co. International plc
17. Oesterreichische Kontrollbank AG
18. Raiffeisenbank a.s.
19. Renta 4 Banco
20. Societe Generale Newedge UK Limited
21. UBS AG
22. UniCredit Bank Czech Republic and Slovakia, a.s.

Fees and Charges

Fees are charged by the respective parties involved in the SEMOpx markets. A summary of these fees is provided below.

Please refer to the SEMOpx and ECC Price lists on the respective websites for the latest official price lists.

Party	Fee Type	Non-Clearing Member (NCM)	Direct Clearing Participant (DCP)
SEMOpx	Exchange Fees	Annual Fee & Once off entry Fee to be determined €5000	
ECC	Variable Fees	ECC Clearing Fees for both Day Ahead and Intraday markets: 0.036 EUR-Cent/MWh for trades in EUR 0.032 GBP-Pence/MWh for trades in GBP	
	Annual Fee	None but must have variable fees of at least €1,000	€12,500 for all spot markets € 9,000 / £6,000 for single market (e.g. SEMOpx)
	Expenses for cash	respective negative interest rate on cash collateral	
	Limit Adjustment Fee	depending on Clearing Member	€100 / £70 per limit /collateral adjustment
Bank	Bank Fees	Individual Bank fees depending on bank and model	

SEMOpx and ECC fees are settled via payment to ECC by the Clearing Member/Settlement Bank of the Non-Clearing Member/Direct Clearing Participant respectively.

Chapter 4: User Access



Systems and User Access – 1/2

As part of registration, a company will need to specify the users that:

- a) Require access to the trading and settlement/clearing system
- b) Are key contacts and authorised persons

The three systems that relate to the SEMOpx markets are:

1. **ETS:** an EPEX Trading System that is used for SEMOpx **Day Ahead and Intraday auctions**
2. **M7:** an EPEX system used for SEMOpx **continuous trading**
3. **SMSS:** ECC's **settlement and clearing** system

The systems access can be either 'Type 2' - meaning login by a user to a User Interface (i.e. screen), or 'Type 3' using computer to computer access (i.e. webservices/FTP).

Systems and User Access – 2/2

Examples of the types of key contacts and authorised persons are provided in the table on the right.

Full details are provided in the relevant registration guide and registration forms.

Any changes to user access, key contacts or authorisations are made through submission of the relevant forms available from the SEMOpx or ECC websites.

SEMOpx	ECC
Traders	General
Front Office Manager	Invoicing
Back Office Manager	Emergency contact
Membership	
IT Contact	
Compliance Officer	
Risk Officer	
Legal Contact	

Agent of Last Resort (AoLR) Service

Related to the SEMOpX markets is the Agent of Last Resort Service.

Capacity

Day-ahead

Intraday

Balancing

TSC
Settlement

SEMO as the market operator of the Trading and Settlement Code arrangements provides a service to certain types of units to facilitate trading in the Day Ahead and Intraday Market Auctions.

The service is called the Agent of Last Resort (AoLR) and:

- Provides bidding capability in the Day Ahead and Intraday Auctions
- Submits Physical Nominations (PNs) for units to the System Operators

The service is available to generation units that are either:

- a) Renewables; or,
- b) Below the De minimis (<10MW) in size

The owner of the units (or a 3rd Party trading on behalf of the units in the Day Ahead and Intraday Markets) must still register themselves with SEMOpX, ECC and obtain a Clearing Member/Settlement Bank in order to participate using the AoLR.

Further information is provided on the AoLR Service in a separate training module.

Chapter 5: Course Summary



Review of Learning Objectives

As a result of this training module, for Day Ahead and Intraday markets, you should now:

Understand the parties involved



Understand the entity model used to represent a company and its units



Understand the process for registering with the different parties



Understand what information is required for registering with the different parties



Contact Details

The following are the key contact details for SEMOpx and ECC. If you have any questions or queries on the registration process please feel free to contact SEMOpx in the first instance.

SEMOpx



SEMOpx
The Oval
160 Shelbourne Road,
Ballsbridge
Dublin 4
D04 FW28
Ireland



If you have any questions
on the application
process or details please
contact:
ROI: 1800 72 6772
NI: 0800 072 6772
International: + 353 (1)
237 0584
(Option 4)



registration@semopx.com

ECC



European Commodity
Clearing AG
Member Readiness
Augustusplatz 9
04109 Leipzig
Germany



If you have any questions
on the ECC application
process or details please
contact:
+49 341 24680 261



MemberReadiness@ecc.de