

Clearing European Energy Markets

South-East and East European Gas Platform (SEEGAS) 2nd Stakeholder Meeting, 10 March 2021

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ECC is part of EEX Group

European Commodity Clearing AG (ECC)

is a clearing house and Central Counterparty (CCP) which has specialised in energy and commodity products.

As part of EEX Group, ECC provides clearing services for EEX, EEX Asia and EPEX SPOT and for partner exchanges HUPX, HUDEX, NOREXECO, SEEPEX and SEMOpx.

As a member of EEX Group, ECC belongs to Group Deutsche Börse.

>eex group

>eex	>epexspot	> eexasia	>nodal
>ecc	> nodal <mark>clea</mark> r	<mark>∢gre</mark> xel	> pxe



ECC offers clearing and settlement services to a broad range of markets

ECC was founded in 2006 as a subsidiary of EEX specialised on clearing services. Since then it has grown into the **central clearing house** for energy and commodity products in Europe with connection to a variety of exchanges.

ECC provides clearing services as a CCP and performs shipping activities. Each of these elements comprises

- Risk management
- Physical settlement (delivery)
- Financial settlement (payment)

ECC partner exchanges and asset classes:

EPEX SPOT (Power)	
PXE (Power)	
HUPX (Power)*	SPOT
SEEPEX (Power)*	0 T
SEMOpx (Power)*	
EEX (Natural Gas, Emissions)	
EEX (Power, Natural Gas, Emissions, Agriculturals, Biomass, Freight, Iron Ore)	DE
HUDEX (Power)*	RIVA
NOREXECO (Fibre)*	DERIVATIVES
EEX Asia (Dry Bulk Freight, Iron Ore)	С

ECC offers access to a large clearing network

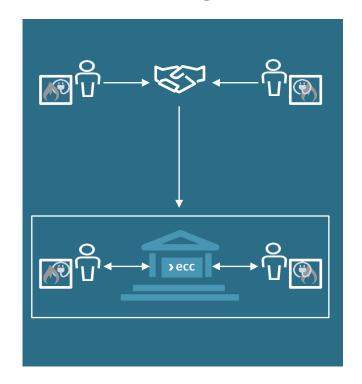
600+ **Participants**

31 **Power and Natural Gas TSOs**

30 **Clearing Members**

ABN AMRO Clearing Bank N.V.	MAREX Financial Limited	
Banca Akros SpA	Mizuho Securities USA LLC	
Banca Popolare di Sondrio SCPA	Morgan Stanley & Co. International plc	
Banco Santander, S.A.	Morgan Stanley Europe SE	
Bayerische Landesbank	National Bank of Greece SA	
BNP Paribas Commodity Futures Ltd.	Oesterreichische Kontrollbank AG	
BofA Securities Europe SA	Raiffeisenbank a.s.	
Citigroup Global Market Europe AG	Renta 4 Banco S.A.	
Citigroup Global Markets Limited	Societe Generale International Limited	
ED&F Man Capital Markets Limited	Société Générale SA	
Goldman Sachs International	StoneX Financial Ltd	
J.P. Morgan AG	UBS AG	
J.P. Morgan Securities plc	UniCredit Bank AG	
KELER CCP Ltd.	UniCredit Bank Czech Republic and	
Macquarie Bank Europe	Slovakia, a.s.	
Macquarie Bank International Limited		

Benefits of CCP clearing CCP clearing makes markets secure



The central counterparty (CCP) takes over the counterparty risk for each participant and guarantees payment and delivery of each contract, even if one of the counterparties defaults

- Clearing and settlement is 'what comes after the handshake.'
- After a trade has been concluded, it will be cleared by ECC. Through this, ECC serves as the contractual partner for both buyer and seller.

By using a **central counterparty**, market participants benefit from:

- Anonymity
- Stable infrastructure
- Standardised processes
- Several lines of defense
- Regulated markets and high operational standards

ECC provides clearing and settlement services

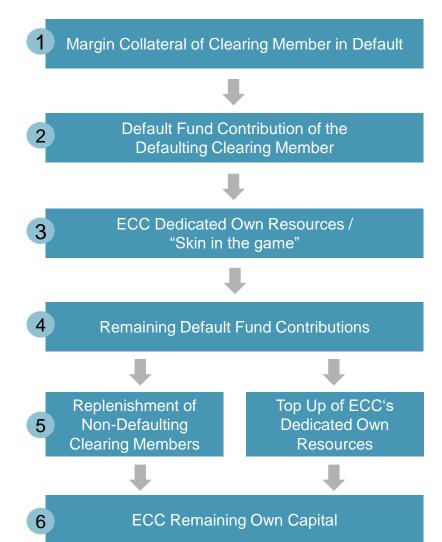
Clearing all activities from the time a commitment is made for a transaction until it is settled		Settlement process of the legally binding fulfillment of contractual obligations	
 Assumption of counterparty risk as Central Counterparty (CCP) Risk management processes like margin and limit system, member management Close-out netting Monitoring Reporting Failure handling 		 Delivery versus payment Transfer of funds (financial settlement): Connection to central bank and commercial banks Physical Settlement: Delivery through TSOs or registries Netting of payments 24/7 helpdesk 	
Risk Management	Physi Settlen (Delive	nent	Financial Settlement (Payment)

Risk Management: a CCP's core function

- ECC mitigates risk for participants through a comprehensive system of limits, margins, our clearing member model and the Default Fund in accordance with regulatory standards (EMIR, CPSS-IOSCO).
- ECC accepts multiple types of collateral including cash, EUAs and a wide range of securities as well as bank guarantees for spot markets.
- ECC provides own funds ("Pre-Funded Financial Resources" or "skin in the game"), which are used in the event of a Clearing Member default before the contributions by non-defaulting Clearing Members to the Default Fund.

Risk management is a CCP's core function and results in **high requirements for the CCP to effectively isolate counterparty risk** (resilient operational/default processes, financial resources, "lines of defense").

ECC's Default Waterfall

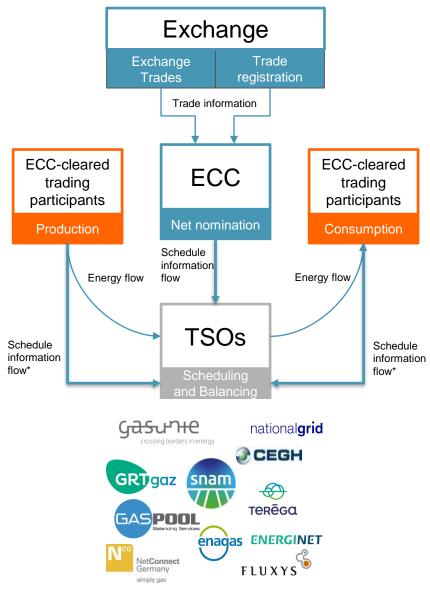


Physical Settlement Process

Nomination Process:

- Trade information is gathered from the order book trading on exchange or Trade Registration deals.
- ECC aggregates nominations per market participant (MP) and delivery market time unit for the respective TSO into one nomination schedule.
- TSO confirms the correct matching of nominated schedules by both the MP and ECC as its counterpart. If a mismatch occurs the TSO sends an alarm message.

ECC Physical Settlement Natural Gas (Within Day, Day Ahead, Physical Futures)



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Payment: ECC as a CCP ensures the financial settlement for all transactions

- As the Central Counterparty, ECC carries out **cash settlement** of all transactions concluded on its partner exchanges.
- ECC has a large and international network of banks that are involved in the financial settlement. Currently 30 banks are admitted as Clearing Members. Members have the possibility to switch between these banks if needed (e.g. backup).
- ECC's financial settlement in Europe is done via the robust and reliable TARGET2 infrastructure of ECB or with the help of commercial Payment Banks, where needed.
- ECC is approved as a designated payment system according to Article 10 of the Settlement Finality Directive 98/26/EC, which makes all payments final (i.e. irrevocable in case of bankruptcy).
- ECC provides participants with reduced financial exposure through daily settlement.





Benefits of clearing with ECC as a CCP

- With a global network of more than 600 participants, clearing banks and TSO's, ECC will find a counterparty for each business.
- With cross-margining benefits across nine energy and commodity exchanges, ECC provides capital efficiency to all participants.
- ECC's core competence is risk management. ECC relies on a stable infrastructure, standardised processes and several lines of defenses ("Default waterfall")

- ECC is the expert when it comes to physical settlement of commodities, offering 24/7 customer support.
- ECC provides full transparency of applied risk models and parameters as well as settlement processes to clients.
- ECC offers different membership models tailored to the specifics needs of clients and markets.



Thank you for your attention!