

part of eex group



One Clear Connection to Commodities

European Commodity Clearing –
clearing and settlement of energy and
commodity products

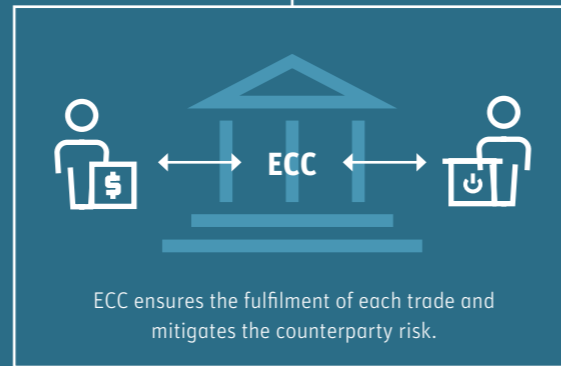


What actually is clearing?

Clearing assures the proper fulfilment of each contract concluded or registered on ECC's partner exchanges.



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.



One Clear Connection to Commodities

European Commodity Clearing (ECC) is the leading clearing house for energy and related commodity products in Europe and beyond.

- > Clearing with ECC means being connected to Europe's major energy and commodity exchanges. One clearing house membership provides access to this network and a large variety of asset classes.
- > ECC assumes clearing as well as physical and financial settlement of transactions concluded and registered for clearing on all partner exchanges.
- > ECC connects global commodity markets through integrated and automated clearing and settlement processes and eliminates the counterparty risk through professional risk mitigation measures.

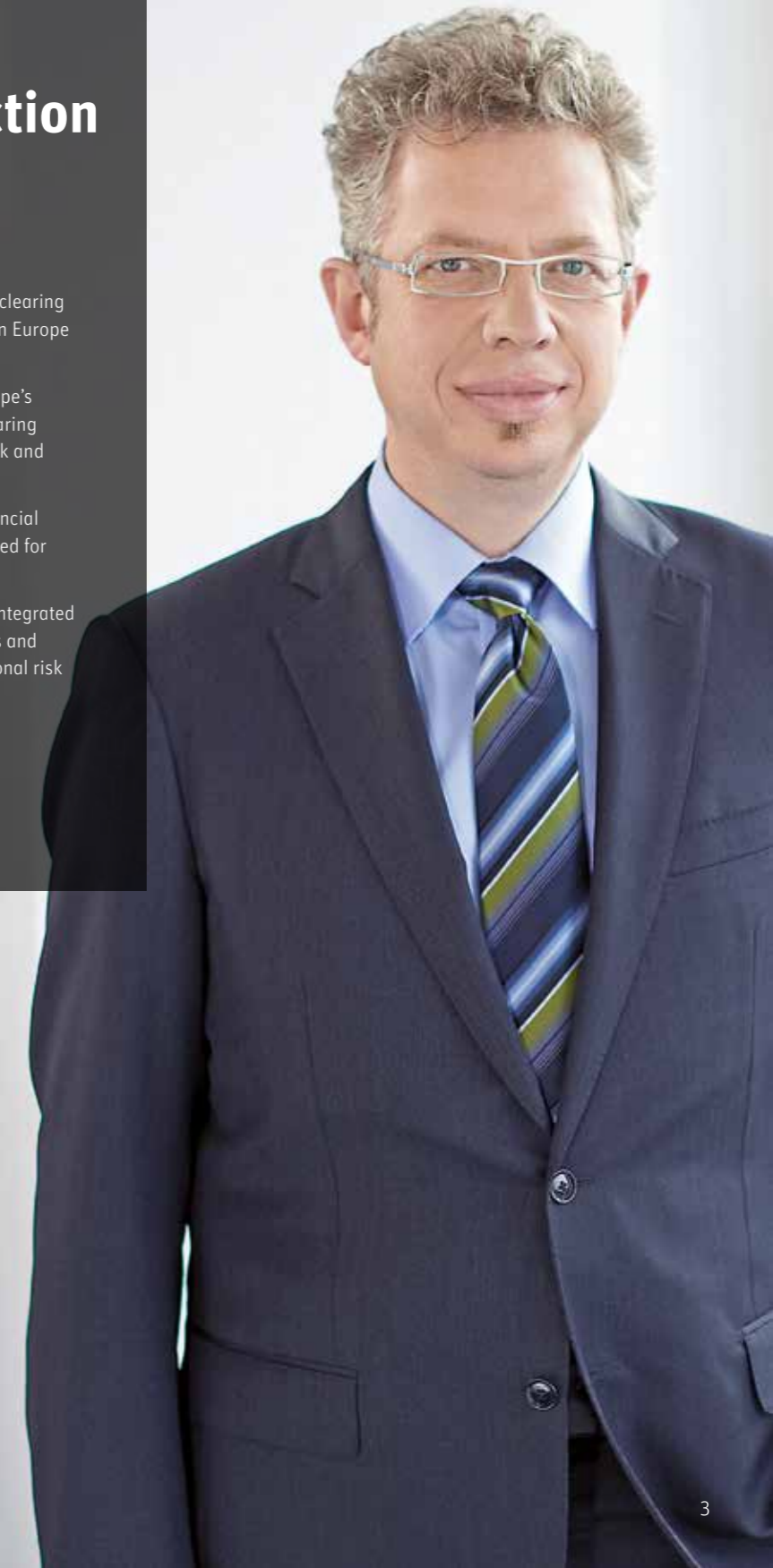
Clearing provides security and operational efficiency.

Explained in a nutshell:
Watch our video

www.ecc.de > About > News > Videos



Dr. Götz Dittrich
Chief Operating Officer

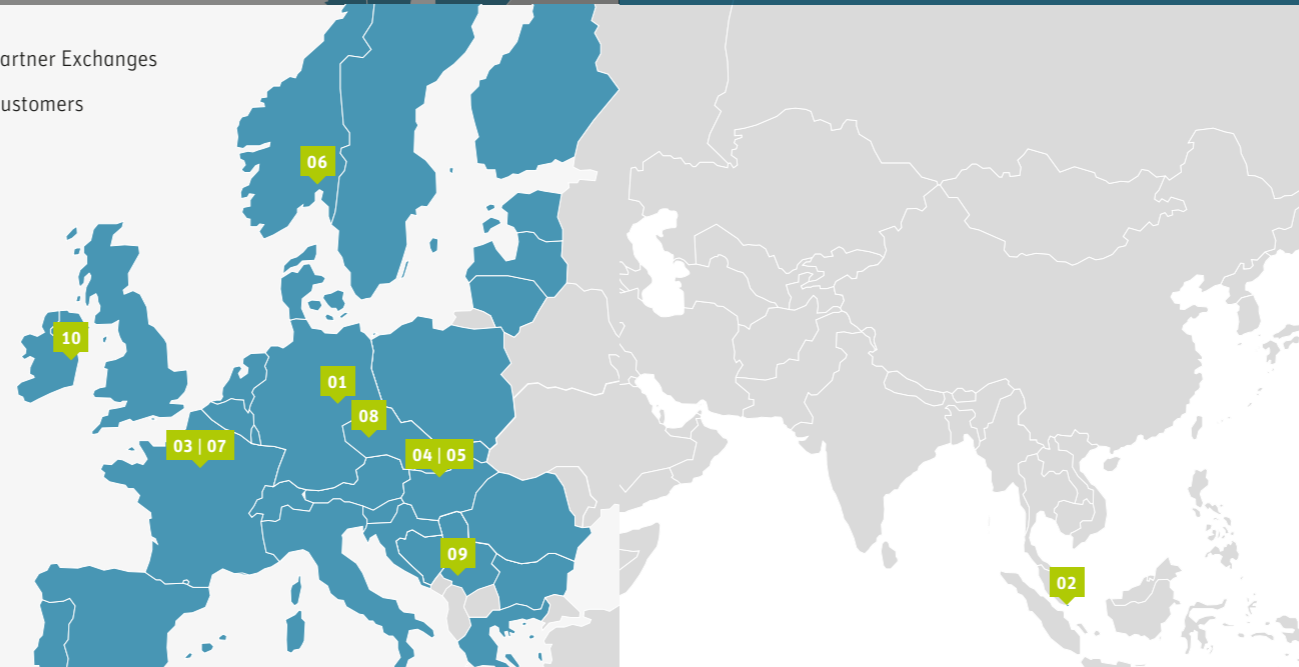


ECC's network of partners

ECC connects
497 participants
from 32 countries.

ECC provides clearing and settlement services for various partner exchanges. By maintaining standardised interfaces and procedures, ECC reduces complexity and costs.

- Partner Exchanges
- Customers



Partner Exchanges

- 01 EEX (Leipzig, Germany)
- 02 EEX Asia (Singapore)
- 03 EPEX SPOT (Paris, France)
- 04 HUDEX (Budapest, Hungary)
- 05 HUPX (Budapest, Hungary)
- 06 NOREXECO (Oslo, Norway)
- 07 Powernext (Paris, France)
- 08 PXE (Prague, Czech Republic)
- 09 SEEPEX (Belgrade, Serbia)
- 10 SEMOpX (Dublin, Ireland; Belfast, United Kingdom)

Clearing Members

- > ABN AMRO Clearing Bank N.V.
- > Banca Akros SpA
- > Banca Popolare di Sondrio SCPA
- > Banco Santander, S.A.
- > Bayerische Landesbank
- > BNP Paribas Commodity Futures Ltd.
- > Citigroup Global Markets
- > Commerzbank AG
- > ED&F Man Capital Markets Limited
- > Goldman Sachs International
- > INTL FCStone LTD
- > J.P. Morgan Securities plc.
- > KELER CCP Ltd.
- > Macquarie Bank International
- > MAREX FINANCIAL LIMITED
- > Merrill Lynch International
- > Morgan Stanley & Co. International plc
- > Oesterreichische Kontrollbank AG
- > Raiffeisenbank a.s.
- > Renta 4 Banco S.A.
- > Societe Generale International Limited
- > UBS AG
- > UniCredit Bank Czech Republic and Slovakia

Settlement Banks

- > ABN Amro Bank N.V.

ECC is continually expanding its network of clearing members and settlement banks.

More information: www.ecc.de > About

ECC's cleared products

| | | |
|------------------|--|--|
| EEX | Power Derivatives Market: AT, BE, CH, CZ, DE, DE/AT, ES, FR, GR, HU, IT, NL, Nordics, PO, RO, SK, UK (Upcoming: BG, SI, RS) Emission Spot and Derivatives Markets: EUA, EUAA, CER | Freight Derivatives Market Agriculture Derivatives Market: Dairy Products, Potatoes Biomass Derivatives Market: Wood Pellets Iron Ore Derivatives Market |
| EEX Asia | Freight Derivatives Market: Dry Bulk Time Charter Freight Futures Dry Bulk Time Charter Freight Options Dry Bulk Trip Time Charter Freight Futures Dry Bulk Voyage Route Freight Futures | Iron Ore Derivatives Market Iron Ore 62% Fe CRF China Futures/Options |
| EPEX SPOT | Power Spot Market: AT, BE, CH, DE, FR, NL, UK Capacity Guarantees: French Capacity Markets | |
| HUDEX | Power Derivatives Market: HU | |
| HUPX | Power Spot Market: HU | |
| NOREXECO | Pulp Derivatives Market | |
| POWERNEXT | Natural Gas Spot Market: CEGH VTP, ETF, GASPOOL, NBP, NCG, PEG Nord, TRS, TTF, ZEE and ZTP hubs | Natural Gas Derivatives Market: CEGH CZ VTP, CEGH VTP, ETF, GASPOOL, NBP, NCG, PEG Nord, PSV, TRS, TTF, ZEE and ZTP hubs (Upcoming: JKM LNG Future) |
| PXE | Power Spot Market: CZ | |
| SEEPEX | Power Spot Market: RS | |
| SEMOpX | Power Spot Market: IE | |

3,923.5^{TWh}
cleared in power markets in 2018

Power and gas account
for the largest share of ECC's
settlement volume.

1,962.9^{TWh}
natural gas cleared in 2018



Power



Natural Gas



Environmental
Markets



Agricultural products



Global Commodities



Pulp

Access to ECC

To participate in the range of clearing services ECC provides several access models.



Non-Clearing Members (NCM)

- › Trading participants on spot and/or derivatives markets cleared by ECC
- › Connected to ECC through a clearing member that acts as a guarantor and payment agent for transactions concluded by the non-clearing member
- › The exposure resulting from trading activities of the non-clearing member is managed through margining. Margins are collateral requirements that are calculated post-trade.

Clearing Members (CM)

- › Account keeping and financial settlement for non-clearing members
- › Trading participants on spot and/or derivatives cleared by ECC
- › Guarantee for trades performed by non-clearing members on spot and/or derivatives markets connected to ECC
- › Can provide access to exchange trading on own account and a large scale of additional services for trading participants

Direct Clearing Participant Clearing Members (DCP)

- › Trading participants on specific spot markets cleared by ECC
- › Connected to ECC through a Settlement Bank that acts as payment agent for transactions of the DCP
- › Pre-trade limits set in the trading system need to be collateralised in advance

ECC's range of services

Physical settlement (delivery)

ECC has a high level of expertise in the physical settlement of power and natural gas and is connected to more than 20 Transmission System Operators (TSOs) and registries.

Financial settlement (payment)

ECC guarantees financial fulfilment and carries out financial settlement for purchases and sales of all transactions concluded on ECC's partner exchanges.

Risk management services

ECC's risk management consists of several lines of defence providing a high level of protection for trading participants and clearing members.

Straight-Through Processing (STP)

ECC offers Straight-Through Processing (STP) of transactions registered at the partner exchanges by brokers.

Reporting services

ECC provides clearing members and trading participants with a service to delegate their EMIR reporting obligations to ECC.

ECC has established integrated processes and highly efficient operations for clearing and settlement services of energy and commodity products.

Physical Settlement

As a clearing house specialising in physical commodity markets, ECC works together with a network of TSOs and registries. Together with these partners, ECC's 24/7 nomination processes support an accurate and reliable transmission of electricity and gas.

ECC develops unique solutions for the energy markets' physical needs.

Financial Settlement

ECC guarantees financial fulfilment for all transactions concluded or registered on ECC's partner exchanges. For the settlement process, ECC cooperates with international banks which are either clearing members or settlement banks.

The payment flow occurs automatically, and is fast and secure.

Mike Hartmann
Head of Financial Settlement & Invoicing

ECC Clearing in the Framework of Market Coupling



Market Coupling in the power markets

ECC supports the vision of an integrated cross-border wholesale energy market in Europe.

Together with our partner exchanges, network operators and trading participants, ECC is involved in various projects for connecting European markets, which is otherwise known as Market Coupling.

Market Coupling optimises the allocation process of cross-border capacities thanks to a coordinated calculation of prices and flows between countries.

Characteristics of Financial Settlement

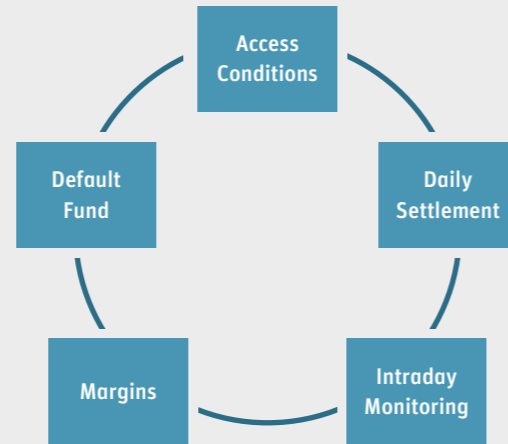
- > ECC performs cash settlement for all transactions concluded at the partner exchanges.
- > Processing until the daily cut-off time at 4 pm with t+1 payment.
- > Currency settlement: ECC's financial settlement includes Euro as well as British Pound Sterling and US-Dollar.
- > ECC has established a harmonised invoicing and fee settlement process across all of its products, markets and asset classes.



Risk Management

Managing risk is an essential function of ECC, a central counterparty (CCP) licensed under the European financial market regulations for CCPs ('EMIR').

- > ECC establishes strict access conditions for its members to ensure their financial soundness and operational reliability.
- > ECC settles variation margin and deliveries on a daily basis.
- > ECC monitors exposures intraday on a near to real-time basis.
- > ECC collects margins from members that cover exposure with a confidence level of at least 99%.
- > ECC collects default fund contributions that cover the exposure in excess of the 99% confidence level.



Risk Management Instruments

Straight-Through Processing (STP)

ECC offers Straight-Through Processing (STP) of transactions registered by brokers on the partner exchanges.

- > The STP service is currently offered for all derivatives products traded on EEX and on the PEGAS platform operated by Powernext.
- > ECC works together with a variety of brokers and independent interface providers who use the STP gateway.



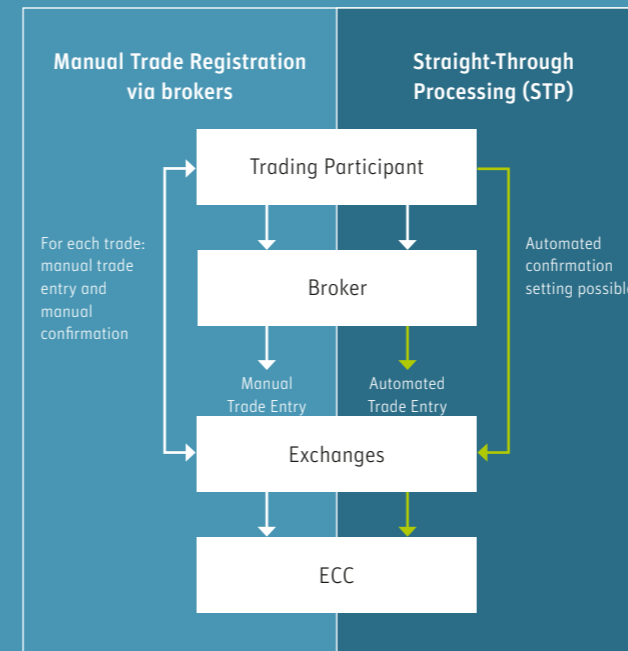
ECC calculates margins for all open positions & transactions across all connected markets, products and exchanges.

Upcoming: New Derivatives Clearing System

ECC uses two clearing systems:

- > Spot market transactions are settled through ECC's Spot Market Settlement System (SMSS).
- > Trade and position management for derivatives, risk management and collateral management including the delivery of the respective reports are implemented in the EUREX clearing system.

In June 2019, ECC will migrate its derivatives position and transaction management from the EUREX classic clearing system to the C7 clearing system. C7 is the state-of-the-art clearing platform of Deutsche Börse Group and has been significantly extended and improved to serve customers across various markets with highly reliable solutions.



Our STP service enables transactions to be registered for further clearing and settlement at ECC.

Pieter Hauffe
Expert Business Analysis and Projects

Reporting Services

As part of EEX Group, ECC provides the opportunity to bundle reporting obligations on behalf of its clients.

Reporting according to EMIR Article 9

The reporting service according to the EMIR regulation covers all derivatives markets cleared by ECC.

Our service:

- > Trade and position reporting for Financial Counterparties (FC) and Non-Financial Counterparties (NFC).
- > Exposure reporting for Non-Financial Counterparties exceeding the EMIR Clearing Threshold (NFC+) and Financial Counterparties.

We support our members in reducing their reporting efforts.



Contact

EEX Group actively supports participants in fulfilling reporting obligations. For all questions related to regulatory reporting, please contact:

Phone: + 49 341 2156 - 380

E-mail: reporting-services@eex.com

EEX Group Reporting Services

MiFID II / MiFIR

MiFID II Directive
No. 2014/65/EU,
MiFIR Regulation (EU)
No. 600/2014

REMIT

Regulation (EU)
No. 1227/2011 &
1348/2014

EMIR

Regulation (EU)
No. 648/2012

Clearing & Settlement

- > For all clearing related questions
- > Available from 7:30 a.m. to 7:00 p.m. CET

Phone: + 49 341 24680 - 444

Fax: + 49 341 24680 - 409

E-mail: clearing@ecc.de

24/7 Scheduling Hotline

- > For questions concerning physical delivery
- > Available 24 hours, 7 days a week

Phone: + 49 341 24680 - 345

Fax: + 49 341 24680 - 409

E-mail: clearing@ecc.de

Member Readiness

- > For all admission related questions
- > Available from 9:00 a.m. to 6:00 p.m. CET

Phone: + 49 341 24680 - 261

Fax: + 49 341 24680 - 559

E-mail: memberreadiness@ecc.de

Direct Clearing Team

- > For all questions concerning Direct Clearing processes (limit, collateral and payment)
- > Available from 9:00 a.m. to 5:30 p.m. CET

Phone: + 31 20 305 4671

E-mail: directclearing@ecc.de

EEX Group provides
market platforms and
clearing houses for energy
and commodity products
across the globe.

ECC is the leading clearing house for energy and commodity products in Europe. ECC assumes the counterparty risk and guarantees the physical and financial settlement of transactions, providing security and cross-margining benefits for its customers.

As part of EEX Group, ECC provides clearing services for EEX, EEX Asia, EPEX SPOT, Powernext and Power Exchange Central Europe (PXE), as well as the partner exchanges HUPX, HUDEX, NOREXECO, SEEPEX und SEMOpX.

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04109 Leipzig
Germany

www.ecc.de

As of January 2019

› eex group

› eex

› ecc

› epexspot

› powernext

› pegas

› px

› nodal

› nodalclear

› eexasia