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

Dr. Marco Herrmann, Senior Clearing Strategy, ECC
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.
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 offers clearing and settlement services to a broad range of markets

**ECC partner exchanges and asset classes:**

<table>
<thead>
<tr>
<th>SPOT</th>
<th>DERIVATIVES</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPEX SPOT (Power)</td>
<td>EEX (Power, Natural Gas, Emissions, Agriculturals, Biomass, Freight, Iron Ore)</td>
</tr>
<tr>
<td>PXE (Power)</td>
<td>HUDEX (Power)*</td>
</tr>
<tr>
<td>HUPX (Power)*</td>
<td>NOREXECO (Fibre)*</td>
</tr>
<tr>
<td>SEEPEX (Power)*</td>
<td>EEX Asia (Dry Bulk Freight, Iron Ore)</td>
</tr>
<tr>
<td>SEMOpx (Power)*</td>
<td></td>
</tr>
</tbody>
</table>

*3rd party partner exchanges
ECC offers access to a large clearing network

<table>
<thead>
<tr>
<th>Participants</th>
<th>Clearing Members</th>
</tr>
</thead>
<tbody>
<tr>
<td>600+</td>
<td>30</td>
</tr>
</tbody>
</table>

### Power and Natural Gas TSOs
- 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.
- BofA Securities Europe SA
- Citigroup Global Market Europe AG
- Citigroup Global Markets Limited
- ED&F Man Capital Markets Limited
- Goldman Sachs International
- J.P. Morgan AG
- J.P. Morgan Securities plc
- KELER CCP Ltd.
- Macquarie Bank Europe
- Macquarie Bank International Limited

### Clearing Members
- MAREX Financial Limited
- Mizuho Securities USA LLC
- Morgan Stanley & Co. International plc
- Morgan Stanley Europe SE
- National Bank of Greece SA
- Oesterreichische Kontrollbank AG
- Raiffeisenbank a.s.
- Renta 4 Banco S.A.
- Societe Generale International Limited
- Société Générale SA
- StoneX Financial Ltd
- UBS AG
- UniCredit Bank AG
- UniCredit Bank Czech Republic and Slovakia, a.s.
Benefits of CCP clearing

CCP clearing makes markets secure

- 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

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.
ECC provides clearing and settlement services

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

- **Risk Management**
- **Physical Settlement (Delivery)**
- **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”).

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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.

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*in some markets only
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!