



CLEARING & RISK MANAGEMENT SERVICES FOR THE ELECTRICITY SPOT MARKET

APRIL 2021

CLEARING CONCEPT

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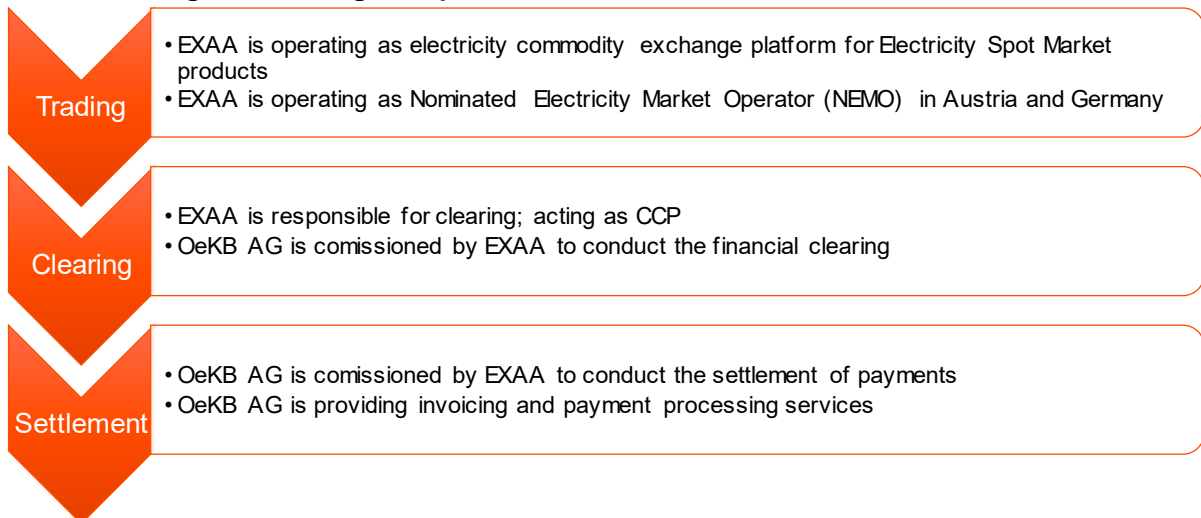
1 Overview

EXAA and CCP.A have agreed on a cooperation where EXAA will fully concentrate on trading and its NEMO activities within the Market Coupling, while CCP.A contributes its valuable experience and skills as central counterparty for the Electricity Spot Market.

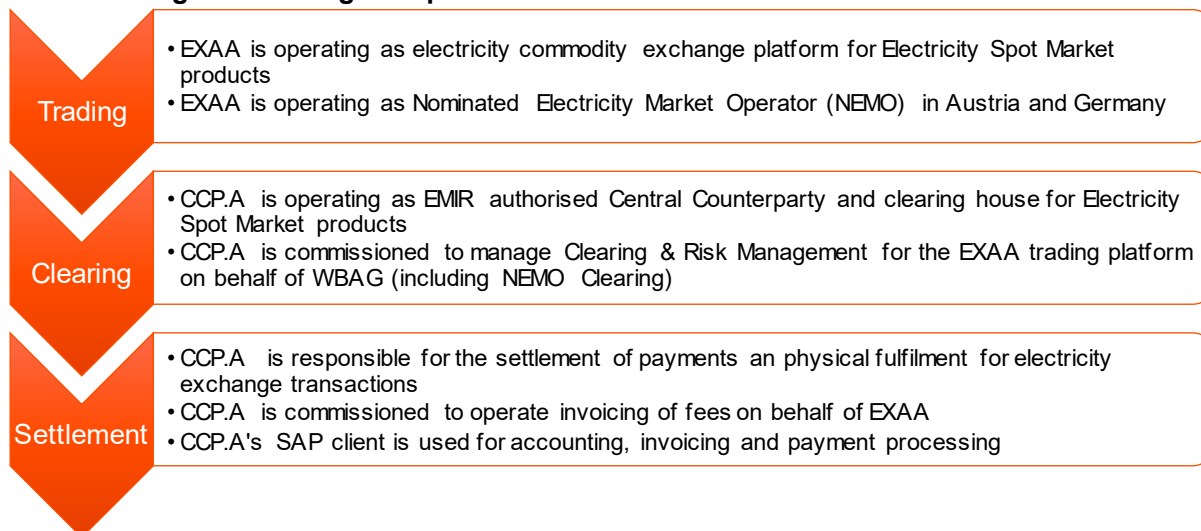
Currently, CCP.A offers professional risk management services and guarantees the orderly and transparent processing of securities transactions. In doing so, it increases the stability of the financial market and supports the further development of the Austrian capital market. This document provides a description of the planned solution for clearing and risk management of electricity spot market products and should summarize all necessary information to manage a smooth transition process.

This transition process for the Clearing and Risk Management services from EXAA to CCP.A will bring changes for market participants in the areas of Contractual Framework, Financial Clearing & Physical Fulfilment and Risk Management Framework.

Current trading and clearing set-up:



Future trading and clearing set-up:



2 Contractual Framework for Participants

2.1 General Terms and Conditions for Trading

Trading in electric power products will continue to take place at EXAA as commissioned by Vienna Stock Exchange in its function as a general commodity exchange and the “*Rules for Participation in Trading in Electric Power and in the Clearing and Settlement of Exchange Transactions Concluded in Trading in Electric Power on the Vienna Stock Exchange in its Function as a General Commodity Exchange – Participation Rules Electric Power*” and the “*Rules for the Trading of Spot Market Products for Electric Power on the Vienna Stock Exchange in its Function as a General Commodity Exchange – Trading Rules Spot Market Products Electric Power*” will continue to apply in its latest version as required by the Membership Agreement.

The transition of the Clearing and Risk Management services from EXAA to CCP.A will mainly result in a significant reduction of the “*Rules for the Clearing and Settlement of Exchange Transactions in Trading in Electric Power on the Vienna Stock Exchange as a General Commodity Exchange – Clearing and Settlement Rules Electric Power*” by referring to the applicable *General Terms and Conditions for the Electricity Spot Market* of CCP.A.

2.2 Membership Agreement for Trading

The membership and respective Membership Agreement (in its latest version) with Vienna Stock Exchange, in its function as a general commodity exchange for the participation at EXAA for all exchange transactions in spot market trading in electric power continue to remain valid as concluded in the process for your admission.

2.2.1 Data Reporting Agreement

Data Reporting Agreements in accordance with the REMIT-Regulation and/or the Electricity Supply Ordinance 734.71 for Switzerland that Market Participants have entered into with EXAA as RRM continue to be valid as an independent agreement, which shall share the faith with the Clearing Agreement with CCP.A, since the Clearing Agreement with CCP.A completely replaces the Clearing and Settlement Agreement with EXAA as soon as the future clearing solution goes live.

2.3 General Terms and Conditions for Clearing

As clearing house, CCP.A will have its own *General Terms and Conditions for the Electricity Spot Market* as the basis for the clearing in the electricity spot market. The objective of the *General Terms and Conditions for the Electricity Spot Market* is to ensure and maintain an efficient, orderly functioning and regulated electricity spot market. The *General Terms and Conditions for the Electricity Spot Market* apply to the clearing of electricity spot market transactions of the Vienna Stock Exchange in its function as a General Commodity Exchange. The *General Terms and Conditions for the Electricity Spot Market* contain general provisions and the procedures as well as the framework for the organisation of clearing, the clearing procedures, the management of default events and the provision and realisation of clearing collateral and contributions to the default fund.

The contents of the *General Terms and Conditions for the Electricity Spot Market* can be illustrated as follows:

General	Participation in Clearing	Market Coupling Counterparty	Financial Clearing
<ul style="list-style-type: none"> (1) Definitions (2) Objective and Scope (3) Clearing House and System (4) Membership (5) Validity of Electricity Exchange Transactions (6) Official Notices (7) Assignment (8) Liability (9) Amendments to these GTC 	<ul style="list-style-type: none"> (10) Admission Procedure (11) Clearing Membership (12) Termination and Suspension (13) Dissolution (14) Compliance with the GTC 	<ul style="list-style-type: none"> (15) Cooperation within the framework of the uniform day-ahead market coupling 	<ul style="list-style-type: none"> (16) Clearing Facilities (17) Cash and Securities Accounts (18) Financial Settlement
Physical Fulfilment	Clearing Collateral	Default	Final Provisions
<ul style="list-style-type: none"> (19) Fulfilment of Obligations (20) Physical Settlement (21) Delivery and Acceptance Conditions 	<ul style="list-style-type: none"> (22) Credit Assessment (23) Providing the required Collateral (24) Type of Clearing Collateral (25) Calculation of Clearing Collateral (26) Margin Requirements (27) Position Limits (28) Default Fund (29) Release of Collateral and Default Fund 	<ul style="list-style-type: none"> (30) Definition and Occurrence (31) Technical Default (32) Consequences of Default (33) Realization of Collateral (34) Coverage of uncovered Losses 	<ul style="list-style-type: none"> (35) Complaint Management (36) Court of Arbitration of the VSE (37) Supplements and applicable Law

The *General Terms and Conditions for the Electricity Spot Market* must be accepted by all Clearing Members as admission requirement and hence are one Annex of the Clearing Agreement (see *Section 2.4 Clearing Agreement*).

2.4 Clearing Agreement

In addition to a membership with the Vienna Stock Exchange as a General Commodity Exchange, an admission to clearing at CCP.A is required. In its role as the central counterparty, CCP.A positions itself between the seller and the buyer and takes on the counterparty risk. As a consequence, before taking up clearing activities, every Clearing Member is obliged to enter into a Clearing Agreement for the Electricity Spot Market with CCP.A (see also § 11 of the *General Terms and Conditions for the Electricity Spot Market*).

The Clearing Agreement thus forms the basis for future clearing activities and contains - including all annexes - a complete picture of the clearing member's desired structure with regard to the financial clearing and physical fulfilment by CCP.A.

The Clearing Agreement completely replaces the existing clearing agreement with EXAA as soon as the clearing activity goes live with CCP.A. A corresponding provision can be found in § 1 para. 1 of the Clearing Agreement (see "Object of Agreement"). The Clearing Agreement shall be signed as soon as

possible, the activation of the Clearing Membership with CCP.A and consequently any liability will not be before the Go-Live date.

2.4.1 Annexes to the Clearing Agreement

Together with the Clearing Agreement, several forms (Annexes to the Clearing Agreement) shall be filled out and sent to CCP.A. The details of the Clearing Membership can be found in the *General Terms and Conditions for the Electricity Spot Market*, which is why these are attached as Appendix 1. With regard to the financial clearing, Annexes 2 and 3 are required, which include the SEPA B2B mandate and the release of banking secrecy. Clearing collateral and the default fund contributions are to be transferred (at least) in EUR-cash deposits to an account of CCP.A (Annex 4). For the physical fulfilment (schedule creation) by CCP.A it is necessary to open / belong to a balancing group, whereby either Annexes 5 or 5a need to be filled out.

Below you will find an overview of the enclosures that must be submitted:

Annex .1: General Terms and Conditions Spot Market Products in Electric Energy of CCP.A

Annex .2: Form – SEPA – B2B – Direct – Debit – Mandate of the Clearing Member

Annex .3: Form – Release of the Settlement Bank from Banking Secrecy

Annex .4: Form – Confirmation of the transfer of cash deposits to an account of CCP.A

Annex .5: Form – Information on Physical Fulfilment: Balance Responsible Party

Annex .5a: Form – Information on Physical Fulfilment: Contract with a Balance Responsible Party

In order to offer you the greatest possible flexibility and choice when depositing the clearing collateral to be provided, other forms of collateral are available (Annexes 6 to 8a). If you have set up your cash settlement account with Oesterreichische Kontrollbank AG (OeKB AG; see Annex 8), you can use CCP.A's service to directly fund the cash collateral or default fund account (Appendix 9).

Below is an overview of the optional Annexes, depending on the desired (further) type of clearing collateral to be provided:

Annex .6: Form – Bank Guarantee Statement

Annex .7: Form – Pledge Declaration for cash by the Clearing Member

Annex .8: Form – Securities Collateral Account of the Clearing Member with the Collateral Custodian

Annex .8a: Form – Pledge Declaration for Securities by the Clearing Member

Annex .9: Form – Direct Debit Order by the Clearing Member

2.5 Requirements for becoming a Clearing Member at CCP.A

All current trading members will as well become clearing members of CCP.A. To this end, CCP.A will conclude a Clearing Agreement with each Clearing Member (see section 2.4 Clearing Agreement). Membership applicants for the clearing system must prove to CCP.A that at the time they obtain membership they meet all requirements of the *General Terms and Conditions for the Electricity Spot Market* (especially see § 11) as well as all provisions of the applicable law, and that they have the required technical installations and connections to the clearing system.

Generally, the following requirements are applicable for Clearing Members (please be aware that this differs regarding to the transition from EXAA to CCP.A → see section 6.1 Process of Contractual Transition):

- Commercial register extract and list of authorized signatories
- Audited annual statements of account including notes and status report of the last two financial years
 - ◆ if available, rating data of the following international accredited rating corporations (Standard & Poor's, Moody's or Fitch)
- Concluded Clearing Agreement with CCP.A including (at least) obligatory Annexes
- Payment of the annual clearing membership fee
- Setting up of a cash settlement account for financial clearing
- Fulfilment of collateral set-up requirements:
 - ◆ EUR cash: transfer of title to CCP.A account or pledged cash account at OeKB AG
 - ◆ Commercial bank guarantees by banks from the EEA or Switzerland
 - ◆ Eligible securities on a pledged securities account at OeKB CSD GmbH
- Setting up the technical connectivity to the clearing system
- Provision of the minimum default fund contribution:
 - ◆ transfer of title to CCP.A or pledged at OeKB AG account
- Proof of application of § 2 para. 1 or 2 of the Financial Securities Act
- Proof of professionally trained staff (clearing diploma)

Regarding the pledged cash account at OeKB AG, you can find the account conditions as part of this information package on our website.

For details on how you will become a securities account holder of OeKB CSD GmbH, please refer to the information on the website of OeKB CSD GmbH:

<https://www.oekb-csd.at/en/securities-cash-account-holders/your-access-to-oekb-csd-as-securities-and-cash-account-holder.html>

2.5.1 Requirements for the Financial Settlement

In compliance with § 17 of the *General Terms and Conditions for the Electricity Spot Market*, a Clearing Member must maintain a cash settlement account for the financial settlement. This account shall meet the following requirements:

- Austrian bank or a credit institute in the EEA (account-holding bank) with the ability to process SEPA B2B direct debits
- Guarantee of the processing of direct debits and credits with value date T+1 in EUR cash deposits

2.5.2 Requirements for the Physical Fulfilment

By entering as a central counterparty to each transaction and assuming the fulfilment risk of the electricity spot market transactions, CCP.A will have the role of the balance group responsible party. Hence, CCP.A opens new balancing groups in each control area at Austrian Power Grid GmbH as well as at TenneT TSO GmbH, 50 Hertz Transmission GmbH, Amprion GmbH and TransnetBW GmbH and consequently is responsible for generating and providing the nominations.

For this purpose, EICs were opened and registered by CCP.A in each control area:

Code	APCS Display Name	EXAA Auction
14Y-GREEN-CCPA-8	CCPAGREEN	EXAA Green Power
14YCCPADATENMLDW	CCPACCP1	EXAA 10:15 Auction
14YCCPADATENML2H	CCPACCP2	12:00 Market Coupling Auction

However, the task of schedule generation and transmission will be delegated to EXAA. Therefore, except for the EICs, there is no change and EXAA will continue to perform the scheduling process although this will be done in the future in the name of CCP.A.

3 Risk Management Framework

3.1 Overall Model

CCP.A as a Central Counterparty will be responsible for the financial clearing and risk management of all day-ahead electricity spot market transactions executed on the electricity exchange platform of EXAA. In this role, CCP.A assumes and manages the settlement and default risk for all trades and thereby contributes to the market stability and efficiency. CCP.A will implement a solid risk management system consisting of the following lines of defence:

- Credit rating assessment of Clearing Members
- Calculation of margin requirements
- Calculation of default fund
- Definition of criteria for eligible collateral
- CCP.A's dedicated own capital (skin-in-the-game)
- Default management procedures

CCP.A will regularly review its risk models and parameters in order to ensure that they are reliable and based on solid assumptions and that the available resources are sufficient.

3.2 Credit Rating Assessment

In order to minimise the credit and counterparty default risk, CCP.A evaluates the current economic and financial situation of each Clearing Member before and during its participation in the clearing system. The creditworthiness of Clearing Members is assessed on the basis of their annual reports and information made available by them and includes the calculation of classical financial ratios. Based on these ratios, the Clearing Member in the electricity spot market will be assigned to a clearing category from 1 to 5. Category 1 comprises companies with the highest and category 5 the companies with the lowest credit rating. Therefore, no changes – the same risk categories will be applied by CCP.A in the future.

The credit rating of Clearing Members is assessed based on their annual financial reports of the last two financial years and includes the calculation of the following classical financial ratios:

- Equity ratio
- Return on investment
- Cash flow pursuant to the Company Reorganisation Act in percentage of operating income (from sales)
- Fictitious debt redemption period pursuant to the Company Reorganisation Act

According to the result of the credit rating, each Clearing Member is designated to a rating category. CCP.A will apply a risk premium on the computed margins for each risk category:

Risk category	Risk premium
1 - 3	0%
4	5%
5	10%

3.3 Margin Requirements

CCP.A will calculate and collect margins to cover its credit exposures from its Clearing Members. In case of a clearing member's default on payment, CCP.A has the obligation to pay the corresponding settlement amount to the Clearing Member(s) delivering the respective amounts of electricity to the defaulting buyer. Since electricity cannot be stored and subsequently used as collateral, CCP.A bears the full credit risk of the defaulting Clearing Member.

Therefore, the credit exposure of the Clearing Members must be covered with collateral at all times. To this end, and in order to reduce the number of margin calls during the day, CCP.A will collect margins in advance based on the historical fluctuation of net payment positions and their average values. In the calculation, also the clearing calendar will be considered with regard to the fact that margin calls are not possible on weekends and on banking holidays.

The margin requirements will be calculated twice per day after each auction. Netting will be done per delivery day across the auctions and all electricity spot market products. If the Clearing Member holds segregated clearing accounts for proprietary and client positions, the margin calculation will be performed separately for proprietary and client account categories supporting transparency.

The margin calculation will be based on:

- Net payment obligation
- Trading volume fluctuation
- Average Trading volumes

The current model for margin calculation remains in place but some parameters will be enhanced according to EMIR¹ standards:

- Confidence level: 99%
- Look back period for margin calculation: 365 days
- Anti-procyclicality margin buffer: 25%
- Credit rating risk premium (0% - 10%)
- Time horizon for calculation: 3 days + holiday adjustment

The below table provides a comparison of the current and future parameters that will be applied for calculating margins:

Parameters	Current Model	Future CCP.A Model
Confidence level	95%	99%
Time horizon for calculation	5 days	3 days + <i>holiday adjustment</i>
Look-back period	30 days	365 days
Frequency of calculation	twice / day	twice / day
Minimum amount	EUR 100.000	EUR 40.000
APC buffer (pro-cyclicality)	0 %	25 %
Credit rating risk	Base = 120 % up to 20 % discount	Base = 100 % 0 - 10 % premium

¹ Regulation (EU) No 648/2012.

3.4 Clearing Collateral

The Clearing Members will be obliged to provide collateral to CCP.A in order to cover their margin requirements as well as their contributions to CCP.A's default fund. More details on the collateral for the default fund contribution can be found in section 3.6.1 Collateral for the Default Fund Contribution.

There will be a period before and after the Go-Live date where collateral needs to be provided to EXAA and as well to CCP.A as there might be open payment obligations for both. Nevertheless, we aim to keep this period as short as possible (no longer than a few days) and eventually the collateral must be provided to CCP.A only.

3.4.1 Collateral Policy

CCP.A has defined a Collateral Policy for the electricity spot market which specifies the different assets admitted as collateral, requirements on the issuers, procedures for collateral valuation as well as application of conservative haircuts.

In addition, strategies for avoiding liquidity risk, concentration risk as well as wrong-way-risk are explained.

3.4.2 Collateral to cover the Margin Requirement

For the provision of margin for electricity spot market transactions, CCP.A will accept cash collateral, commercial bank guarantees and securities which fulfil certain predefined criteria. This includes requirements on the issuer and the form of bank guarantees and the definition of adequate haircuts for eligible securities that reflect the potential for their value to decrease over the period between their last assessment and the time by which they can reasonably be assumed to be liquidated.

Cash Collateral

Cash collateral will only be accepted in the settlement currency Euro (EUR). There are two options for the provision of cash collateral:

- Deposit on Clearing Member's pledged cash collateral account held at OeKB AG
- Transfer of required collateral amount to a dedicated cash collateral account of CCP.A

Clearing Members from non-EU countries will be requested to transfer the required cash amount to a dedicated cash collateral account of CCP.A.

Bank Guarantees

Clearing Members, which are non-financial counterparties, will be allowed to provide bank guarantees that shall meet the following criteria in order to be accepted as collateral by CCP.A:

- it is issued by a credit institution located in the EEA or Switzerland whereby the issuer
 - ◆ is not a company with which the Clearing Member is affiliated;
 - ◆ is not an entity whose business involves providing services critical to the functioning of CCP.A, such as OeKB AG or OeKB CSD GmbH;
 - ◆ has a credit rating of at least S&P BBB- or equivalent (investment-grade);
 - ◆ CCP.A retains the right to reject bank guarantees issued by credit institutions located in specific countries from the list of accepted collateral.
- it is irrevocable, unconditional and the issuer cannot rely on any legal or contractual exemption or defence to oppose the payment of the guarantee;
- it can be honoured immediately, at the latest on the next bank business day upon CCP.A's request, providing it without any regulatory, legal or operational constraint;
- the bank guarantee currency is Euro (EUR);

- the remaining time to expiration is at least 2 months.

New bank guarantees will have to be issued in favour of CCP.A. The existing bank guarantees cannot be transferred to CCP.A.

Eligible Securities

Clearing Members will be able provide collateral eligible securities pledged on a securities collateral account with OeKB CSD GmbH in favour of CCP.A. Securities will be accepted from issuers with low credit and market risk, which are freely transferable and tradable on regulated markets for which price data is regularly published.

The following securities will therefore be accepted as collateral by CCP.A:

- Debt instruments specified on the list of eligible marketable assets of the ECB (<https://www.ecb.europa.eu/paym/coll/assets/html/index.en.html>).
- Listed in Euro (EUR)
- Remaining time to maturity of at least one year
- Listed on a regulated market in the EU
- Classification in collateral class 1-3 by CCP.A

The requirements for eligible securities are identical for both markets cleared by CCP.A and can be found on CCP.A's website: <https://www.ccpa.at/en/risk-management/collaterals-collateral-policy/>.

The current value of securities provided as collateral will be computed daily, based on current market prices and by applying conservative haircuts. CCP.A determines the size of the haircut per Collateral Class by calculating the historical price volatility of each security. The haircuts defined by ECB will also be taken into consideration.

The following minimum / maximum haircuts per Collateral Class will be applied:

Collateral Class	Minimum	Maximum
1	8%	20%
2	10%	20%
3	12%	n.a. (100%)

Clearing Members from non-EU countries shall transfer the eligible bonds to a dedicated securities collateral account of CCP.A.

3.5 Monitoring of Exposure and Position Limits

To ensure that the credit exposure is covered with sufficient collateral at all times, CCP.A and EXAA will continuously monitor the open positions of each Clearing Member. For this purpose, position limits corresponding to the provided collateral are set per Clearing Member's account in the trading system.

New is that the available position limit will correspond to the full value of provided collateral (with the exception of weekends).

In case the position limit is exhausted, EXAA will continue to actively request trading participants to modify their orders accordingly. If the trading participant does not react to this request EXAA will delete orders entered into the trading system until the portfolio value falls below the position limit (please refer to § 20 Cancellation of Orders and Position Limits of EXAA's Trading Rules on Spot Market Products – Electric Power).

3.5.1 Position Limits 10:15 a.m. Auction

Shortly before 10:15 a.m., EXAA calculates the indicative prices per traded product based on the order books and together with all open (i.e., not yet settled) positions checks these against the position limits.

3.5.2 Position Limits 12:00 p.m. Market Coupling Auction

The 12:00 Market Coupling Auction utilises a centralised European market coupling algorithm to determine prices, which combines supply and demand curves from several countries and exchanges. For the exposure valuation during the auction, this means that it must be based on estimated prices. The 10:15 a.m. auction prices are used as reference prices and risk factors (spread buffers) are applied, which are calculated based on the historical price spreads between the 10:15 a.m. and 12:00 p.m. Market Coupling auction for each single hour product.

3.6 Default Fund

CCP.A maintains a pre-funded default fund to cover losses that exceed the losses covered by the margin requirements in case of a Clearing Member's default on the electricity spot market, including the opening of an insolvency procedure.

CCP.A's default fund is calculated to cover the simultaneous default of Clearing Members with large exposures on the electricity spot market and is held separately from the default fund installed for the clearing of cash market securities transactions. Each Clearing Member on the electricity spot market will have to provide a contribution to the default fund which is calculated on the basis of their average exposure. The minimum requirement will amount to EUR 10,000.

In order to determine the total size of the default fund on the electricity spot market, CCP.A has developed scenarios of extreme but plausible market conditions. Such stress scenarios include historical as well as hypothetical events.

The total default fund size will be allocated to the Clearing Members according to their average margin requirements. The allocation ratio per member will be calculated by dividing the average individual margin requirement by the sum of the margin requirement of all members.

The calculation of the total default fund size and the allocation to the Clearing Members will be carried out at least on quarterly basis.

NEMOs and their CCPs do not participate in mutualisation of default losses and therefore do not contribute to CCP.A's default fund. In case of default of a NEMO or its respective CCP, CCP.A will use the provided collateral. If the collateral is not sufficient to cover the financial losses, CCP.A will proportionately reduce the payments towards the clearing members until the remaining loss is covered.

3.6.1 Collateral for the Default Fund Contribution

Only cash collateral in EUR will be allowed for the contribution to the default fund. The amount shall be transferred to a dedicated default fund cash account of CCP.A or pledged on a dedicated cash collateral account with OeKB AG as Collateral Custodian in favour of CCP.A.

Clearing Members from non-EU countries shall transfer the required collateral amount to a dedicated cash collateral account of CCP.A.

3.7 Dedicated Financial Resources

According to Art 43 EMIR, CCP.A maintains prefunded financial resources which amount to at least 25% of the minimum capital (Art 35 para. 2 RTS 153/2013) as additional resource in the default waterfall facility in order to cover potential losses in excess of those covered by the collateral provided (“skin-in-the-game”).

CCP.A has reserved 25% of EUR 7.5 Mio (= EUR 1.875.000) as dedicated resources in its balance sheet. These dedicated financial resources are allocated to CCP.A's two default funds (for the clearing of cash market securities and the clearing of electricity spot market products) in proportion to their size. The allocation will be performed on quarterly basis.

3.8 Default Management

The default of a Clearing Member will be declared if one of the following scenarios occurs:

- Insufficient coverage on the Clearing Member's Cash Settlement Account in order to meet payment obligations
- Failure to cover the Final Margin Call after due time
- Failure to maintain the required collateral components in their particular proportions
- Failure to replenish realised collateral
- Failure to provide the required default fund contribution in due time
- Failure to meet the obligations pursuant to the *General Terms and Conditions for the Electricity Spot Market*

As a Clearing Member, you will furthermore be obligated to inform CCP.A immediately in case of a failure to meet obligations pursuant the *General Terms and Conditions for the Electricity Spot Market* and/or imminent insolvency or over-indebtedness.

The Clearing Member in default will be assigned the default status either by electronic or written notification and consequent reporting to Vienna Stock Exchange in its function as general commodity exchange is put into effect, which in turn imposes respective measures according to the exchange operating company's *General Terms and Conditions for the Electricity Spot Market*.

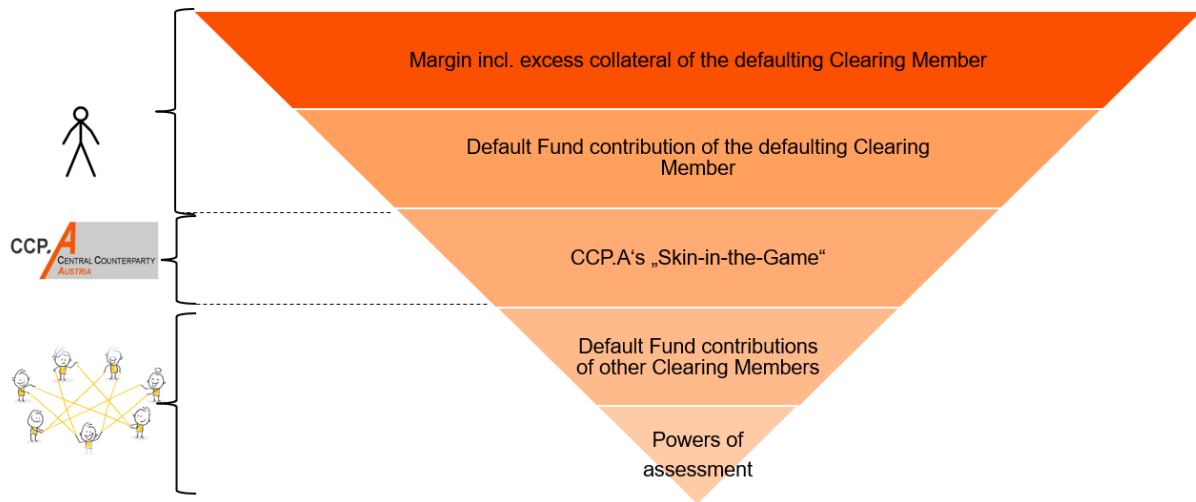
A technical default occurs when a Clearing Member can prove that his failure to meet the respective obligations pursuant to the *General Terms and Conditions for the Electricity Spot Market* is not due to insolvency. In this case, CCP.A may declare a technical default and may refrain from reporting to Vienna Stock Exchange, while the Clearing Member will be obligated to submit a written statement on the reasons of the technical default and immediately remedy the causes.

In case of a default on payment, the Clearing Member's collateral will be realised after one reminder in the following order, while the Clearing Member has the obligation to replenish realised collateral immediately according to CCP.A's discretion:

1. EUR - Cash Collateral and all credits to the cash settlement account
2. Bank Guarantees
3. Security Collateral
4. Default Fund Contribution of the Clearing Member in default

3.8.1 Default Waterfall

The following diagram shows the order of usage of resources in CCP.A's default waterfall:



The computation of margin requirements to cover the credit risk of the Clearing Member's exposure is the most important pillar in CCP.A's risk management. The collateral provided by the Clearing Member is the first resource to be used to cover open payment obligations in case of default.

CCP.A's default fund is designed to cover losses that exceed the losses covered by the margin requirements. In the event of Clearing Member default, after the collateral provided as margin has been used, CCP.A will realise the defaulting Clearing Member's contribution to the default fund.

When all resources provided by the defaulting member including excess collateral have been used, CCP.A will use the dedicated own resources (skin-in-the-game) to cover remaining losses before realisation of default fund contributions of non-defaulting Clearing Members.

Should the total default fund be exhausted and there is still an uncovered loss, it will be mutualised between the non-defaulting Clearing Members. CCP.A will use its power of assessment and ask its Clearing Members to provide additional contributions to the default fund. This additional powers of assessment are capped at twice the current default fund contribution of each Clearing Member.

3.9 Model Validation

CCP.A will regularly review the models and parameters adopted to calculate its margin requirements, default fund contributions, collateral requirements and other risk control mechanisms in order to ensure that the risk management models in use are reliable, based on solid assumptions and reflect the reality as much as possible.

Moreover, CCP.A will regularly test its default management procedures and takes all reasonable steps to ensure that all Clearing Members understand them and have appropriate arrangements in place to respond to a default event.

CCP.A's *Test Policy for Model Validation Electricity Spot Market* specifies the procedures how to test all relevant risk models, the frequency of each testing activity and how to review the test results.

The following table contains an overview of CCP.A's test schedule:

Model to be tested	Test	Objective	Frequency
Margin model	Back tests	To assess the reliability of the margin model by comparing observed outcomes with expected outcomes	daily
Model for computing default fund and overall resources	Stress tests	To calculate min size of default fund	daily
Liquidity needs calculation	Liquidity stress tests	To ensure that CCP.A has sufficient liquid assets to cover the settlement obligations towards its counterparties also in stressed market conditions (e.g., simultaneous default of 2 largest Clearing Members)	daily
Model for computing default fund and overall resources	Reverse stress tests	To ensure that margin, default fund and skin-in-the game are sufficient to cover loss of 3 largest Clearing Members	quarterly
Default procedures	Simulation of events	To ensure that default procedures are practical and effective	annually

4 Invoicing & Payments Processing

CCP.A will create payment instructions which are sent to the payment system for settlement, whereas the value date is based on the trade date, delivery date, auction type and settlement calendar according to the following table:

10:15 a.m. Auction			12:00 p.m. MC Auction		
Trade Day	Delivery Day	Value Date	Trade Day	Delivery Day	Value Date
Monday	Tuesday	Tuesday	Monday	Tuesday	Tuesday
Tuesday	Wednesday	Wednesday	Tuesday	Wednesday	Wednesday
Wednesday	Thursday	Thursday	Wednesday	Thursday	Thursday
Thursday	Friday	Friday	Thursday	Friday	Friday
Friday	Saturday	Monday	Friday	Saturday	Monday
Friday	Sunday	Tuesday	Saturday	Sunday	Tuesday
Friday	Monday	Tuesday	Sunday	Monday	Tuesday
Monday	Tuesday	Tuesday	Monday	Tuesday	Tuesday

CCP.A will be responsible for the settlement of payments for electricity exchange transactions and has been as well commissioned to operate the invoicing on behalf of EXAA after the Go-Live date. Payment instructions and related invoices/credit notes will be created for:

- Electricity spot market trades
- All-in transaction fees (on behalf of EXAA)
- EXAA special fees (on behalf of EXAA)
- CCP.A administrative fees

Future invoices/credit notes for the electricity spot market trading and clearing will be issued by CCP.A in the CCP.A invoice layout. Future invoices/credit notes for transaction fees and EXAA special fees will as well be issued by CCP.A but in the EXAA invoice layout.

The future number of invoices will be reduced but generated and issued as nowadays daily, while

- invoices / credit notes will be consolidated across the auctions performed for each delivery day, and
- different invoice types mentioned in the section 4.2.1 Invoices / Credit Notes of Electricity Spot Market Transactions will no longer be supported.

4.1 Payment Settlements

After each auction, the concluded trades and corresponding fees will be submitted to the payment system and invoices and credit notes are generated after netting of all trades per Clearing Member. OeKB AG as CCP.A's settlement bank generates payment instructions based on the Clearing Members' SEPA B2B mandates where the credit and debit payments arising from the electricity transactions are settled over the CCP.A settlement account at OeKB AG on the value date T+1.

The value date will be reduced from T+2 to T+1 thus reducing the risk for CCP.A as well as for the participants, which in turn means that margin requirements can be reduced as well.

4.2 Invoicing

All invoices and credit notes for electricity spot market transactions and fees are generated and submitted via e-mail to the Clearing Members. A copy of the electronic invoice can be received by nominated recipients (contacts) via e-mail, as well.

4.2.1 Invoices / Credit Notes of Electricity Spot Market Transactions

Currently, the following invoice items are possible for electricity spot market transactions per each auction:

- Sell Trades Spot (positive prices)
- Buy Trades Spot (positive prices)
- Sell Trades Spot (negative prices)
- Buy Trades Spot (negative prices)

Electricity spot market transactions for both auctions and all invoice types mentioned above will be consolidated and summarised on a single invoice, grouped by auction, trade date and trade account. Thus, the number of daily invoices will be reduced significantly.

4.2.2 EXAA Transaction and Special Fees

CCP.A will generate and submit the all-in transaction fees and special fees (e.g. yearly business fee, trader fee, token fee, etc.) from the Clearing Members on behalf of EXAA. Separate invoices will be created for transaction fees and special fees.

Transaction fees will be consolidated on a single invoice across the auctions performed for each delivery day, grouped by auction, trade date and trade account.

4.2.3 CCP.A Administrative Fees

CCP.A will charge the following fee types directly to the Clearing Members:

- Clearing membership fee
- Collateral management fee
- Forwarding of negative interest and other expenses related to cash collateral
- Training fee

The membership fee will be invoiced annually while other fees are invoiced monthly, except for clearing training bills. Those will be issued after the training course attendance.

There will be no additional transactional fees. The existing all-in transaction fee of EXAA will remain in place, unchanged, and covers trading and clearing as already today. There are no additional fees (e.g. token) for the access to the clearing system either.

5 Clearing System

The current all-integrated trading and clearing system will be used by CCP.A to provide the clearing and risk management functionality.

As the clearing system functionality is already integrated into the overall system solution there will be no actual change for the Clearing Members in this respect. The system, the connectivity and as well the user accounts that are already in place will remain unchanged. Of course, there will always be the possibility to register new system users, to change the user access profile for existing users or to remove users, if required.

5.1 Planned Changes

A couple of changes will be implemented in the course of this project. However, only a few of these have an impact on the clearing system functionalities and are explained below:

5.1.1 Default Fund

The introduction and establishment of a default fund and its associated changes in the clearing system represents probably the biggest change that the participant can perceive in the clearing system.

The Clearing Members default fund contribution will be visible as 'internal account instance' on which the

- minimum contribution
- dynamic contribution
- current account balance and
- details on the last calculation (e.g., average of margin requirements and default fund call or surplus)

will be recorded and which will be accessible via an additional section within the Risk Management navigation pane.

5.1.2 Margin Calculation

As already explained in section 3.3 Margin Requirements the current model for margin calculation remains in place but some parameters will be enhanced (e.g. anti-procyclicality buffer) or adjusted (e.g. confidence level, look-back period, etc.) according to EMIR standards.

The calculated detailed margin values, while respecting the parameters accordingly, will be visible within the Risk Management navigation panel as additional information in the risk value view.

The collateral view will be supplemented by the securities collateral, which will then be additionally considered in a future margin calculation.

5.1.3 Collateral Usage Forecast

We strive for more transparency, especially in the area of available collateral. Therefore, a forecast on the collateral usage for the market-coupling auction will be included.

This should provide Clearing Members with an overview on the utilization and availability of the deposited collaterals in terms of position limits by considering the sum of (indicative) open invoice items (using estimated MC prices) for the next Market Coupling auction.

5.2 Daily Schedule

The following table provides information about relevant trading and clearing jobs and processes - the future daily schedule. The daily routine remains largely unchanged. The payment information will only be transmitted to the settlement bank once a day after the MC auction.

FROM	TO	JOB	DESCRIPTION
08:00	17:00	Payments Settlement	Payments, which reached their value date, are settled.
09:00	10:00	Position Limits Computation	The position limits are automatically calculated in the 10 min. intervals for the 1 st auction (EXAA 10:15 auction).
	09:30	Margin Call Check	Check on the collateral coverage of the margin call from the previous final margin computation run.
	10:12	Trade Closure	The 1 st auction (EXAA 10:15 auction) order book is closed for the trading participants.
10:12	10:15	Final Position Limits Computation	The final position limits are calculated before the 1 st auction (EXAA 10:15 auction) is started.
10:15	10:18	1st Auction (EXAA)	The EXAA 10:15 auction is performed.
10:21	10:24	Post-Trading	Surpluses can be bought/sold at the auctioned market clearing price
	10:24	Auction Finalization	The 1 st auction (EXAA 10:15 auction) is finalized and closed.
10:25	10:35	SAP Master Data	After the successful auction 1 st auction closure finalization (EXAA 10:15 auction), the clearing member payment master data are provided to the settlement bank.
10:35	10:45	1st Margin Computation Run	After the successful transmission of the payment data, the preliminary margin computation run is triggered.
10:24	14:30	Schedule Provision (1st Auction)	The trading schedules resulting from the 1 st auction (EXAA 10:15 auction) are generated and provided to the TSOs and trading participants.
11:00	11:50	Position Limits Computation	The position limits are automatically calculated in the 10 min. intervals for the 2 nd auction (12:00 MC auction).
	12:00	Trade Closure	The 2 nd auction (12:00 MC auction) order book is closed for the trading participants.
12:00	12:10	Orderbook Provision	The orderbook for the 2 nd auction (12:00 MC auction) is provided to the PCR (Price Coupling of Regions).
12:10	12:42	Final Price Receipt	EXAA receives preliminary auction results from the PCR.
12:42	13:00	Trade Allocation and Auction Finalization	Based on the received preliminary and final market coupling results EXAA allocates and fulfils the trades from the orderbook and finalizes the 12:00 MC auction.
13:00	14:30	Schedule Provision (2nd Auction)	The trading resulting from the 2 nd auction (12:00 MC auction) are generated and provided to the TSOs and trading participants.
13:00	13:15	Payment Data	After the successful auction finalization of the 2 nd auction (12:00 MC auction), the netted payment results are provided to the settlement bank.
13:00	13:15	Invoice Run	After the successful transmission of the payment data, the clearing clients' invoices and credit notes are issued.
13:15	13:30	2nd Margin Computation Run	After the successful transmission of the payment data, the final margin computation run is triggered.

6 Project Milestones

6.1 Process of Contractual Transition

The Clearing Agreement with CCP.A will replace the existing Clearing Agreement, including all Annexes, between EXAA and your company. You can find detailed information on the transition to CCP.A in the document “*Transition Checklist*”.

6.2 Individual Online Meetings

During May to September 2021 EXAA and CCP.A will offer online meetings. You, as a future Clearing Member, are invited to proactively contact EXAA and/or CCP.A with regard to such a meeting, where we will be happy to answer specific detailed questions.

6.3 Clearing Trainings

CCP.A will offer clearing trainings in order to get familiar with the new Clearing System functionalities. We will offer alternative dates in German and English language during the summer months, July and August 2021, where all users are free to choose the most suitable course.

The clearing trainings will be mandatory for all users, but they will be free of charge and without a mandatory exam for already existing users.

6.4 Testing

After an intensive internal test phase for CCP.A and EXAA, also you as Clearing Member and your associated users will have the possibility to perform tests of the changed/new functionalities.

According to the current planning, we assume that these user tests will start during September 2021.

6.5 Migration & Go-Live

The Go-Live is planned for Q4/2021. Unfortunately, we are not yet able to announce the final Go-Live date, but this will be communicated as soon as possible.

Until then we will provide regular status information on the project progress and the migration plan by means of circulars and additional online member meetings.