

Collateral Policy

Electricity Spot Market

Document Title	Document Class
Collateral Policy Electricity Spot Market	Policy

Document Information

Document Owner	Chief Risk Officer
Document Reviewer	Chief Compliance Officer
Document Approver	General Management

Document Review Cycle

yearly

Change Log¹

Version	Effective Date	Change Description
V1.0	09.11.2021	Initial Creation
V1.1	02.05.2022	Annual review – no changes
V1.2	25.05.2023	Annual review – no changes

¹ The change log is only kept for finally valid versions; CCP.A internal coordination in the creation or change process are not contained.

Content

1	Introduction.....	4
2	Collateral to cover the Margin Requirement.....	5
2.1	Cash Collateral	5
2.2	Bank Guarantees	6
2.3	Eligible Securities.....	6
2.3.1	Collateral Class 1.....	8
2.3.2	Collateral Class 2.....	8
2.3.3	Collateral Class 3.....	8
3	Collateral for the Default Fund Contribution.....	9
3.1	Cash Collateral	9
4	Valuation and Haircuts.....	10
4.1	Valuation Rules.....	10
4.2	Determination of Haircuts	10
5	Concentration Limits.....	11
6	Wrong Way Risk.....	12
7	Review of the Collateral Composition.....	13
7.1	Review of the Securities Collateral.....	13
7.1.1	Assessment of credit and market quality	13
7.1.2	Review of Price Volatility	13
7.2	Review of Bank Guarantees.....	13
7.3	Review of Concentration Limits.....	13
7.4	Review of the Collateral Policy	13
8	Reporting.....	14

1 Introduction

The Clearing Members are obliged to provide collateral to CCP.A in order to cover their margin requirements calculated according to the *Margin Calculation Methodology Electricity Spot Market* as well as to provide their contributions to CCP.A's Default Fund according to the *Policy Framework for Stress Scenarios and Default Fund Calculation*.

In this document, CCP.A defines its Collateral Policy related to the clearing of electricity spot market transactions. It describes the conservative approach applied to the admission of certain assets as collateral and to their evaluation.

CCP.A accepts cash collateral for both, the clearing members' margin requirements as well as their Default Fund contributions. In addition, for the provision of margin for electricity spot market transactions, CCP.A accepts 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.

CCP.A considers the liquidity risk following the default of a Clearing Member and the concentration risk and has implemented concentration limits on the acceptable collateral. Moreover, strategies for avoiding "wrong way risk" are also explained.

2 Collateral to cover the Margin Requirement

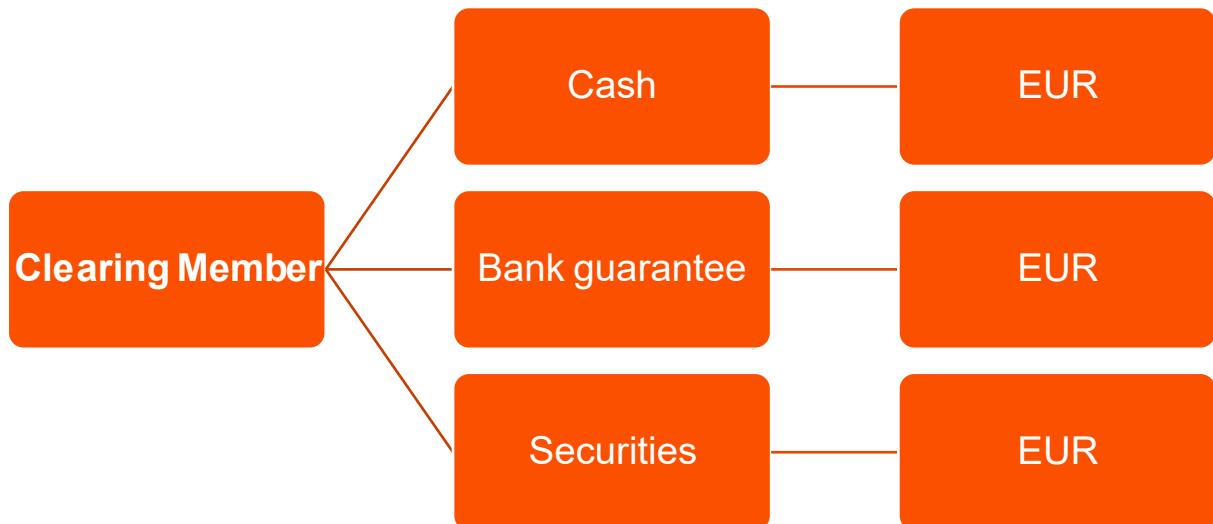


Figure 1 : Accepted Collateral for the Margin Requirement

2.1 Cash Collateral

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

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

Clearing Members from non-EU countries are obliged to transfer the required collateral amount to a dedicated collateral cash account of CCP.A (transfer of ownership by way of security). The option of depositing cash on an own pledged collateral account is not available to them unless they provide at their own expense a legal opinion acceptable to CCP.A and confirming the legal enforceability and in particular the possibility of realising the clearing collateral in the event of insolvency (see § 11 para. 3 of the General Terms and Conditions Electricity Spot Market).

2.2 Bank Guarantees

Clearing Members on the EXAA electricity spot market which are non-financial counterparties are allowed to provide commercial bank guarantees as collateral which serves as margin credit in the margin calculation.

A bank guarantee 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 European Economic Area 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, OeKB CSD;
 - ◆ 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 EUR;
- the remaining time to expiration is at least 2 months.

Should the issuing bank be a clearing member of CCP.A, CCP.A will take the guarantees into account when calculating its liquidity exposure towards the bank that is also a clearing member.

2.3 Eligible Securities

Securities provided as collateral to cover margin requirements shall be deposited on a pledged collateral account held at OeKB CSD GmbH.

Securities are 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 are therefore accepted as collateral by CCP.A:

Collateral Class 1-3:

- 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 EUR
- Assignable to one of the haircut categories in the table
- Remaining time to maturity of at least one year
- Listed on a regulated market in the EU
- The issuer is not

- a Clearing Member or a company with which the Clearing Member is affiliated
- CCP.A or an affiliated company, i.e., WBAG or OeKB AG an entity that provides services critical for functions of CCP.A unless the entity is an EEA central bank. The following company is currently defined as such an entity: OeKB AG as the settlement bank. For securities in Collateral Class 1-3 in ECB's list of eligible marketable assets, the max haircut is 10% (i.e. haircut $\leq 10\%$).
- CCP.A retains the right to delete securities with 'Issuer Residence' in specific countries from the list of accepted collateral.

CCP.A assigns each security to one of three Collateral Classes. The assignment to a Collateral Class reflects the credit quality of a security; securities in Collateral Class 1 have the highest creditworthiness.

When assigning a security to a Collateral Class, the price availability, the reference market and the haircut category considered adequate by the ECB are taken into consideration.

Haircut categories

When evaluating the Collateral Class, CCP.A uses the haircut categories defined by the ECB in the Guideline (EU) 2016/65 as well as indicators it has developed itself for price availability:

Category I (L1A)	Category II (L1B)	Category III (L1C)	Category IV (L1D)
Central government debt instruments	Local and regional government debt instruments	Traditional covered bonds and other covered bonds	(Unsecured) credit institution debt instruments
Debt instruments issued by national central banks	Jumbo covered bonds	Debt instruments issued by non-financial corporations	(Unsecured) debt instruments issued by financial corporations other than credit institutions
Debt instruments issued by the ECB	debt instruments issued by entities classified as agencies by the Eurosystem		
	debt instruments issued by multilateral development banks and international organisations		

Table 1: Haircut categories pursuant to ECB

In addition to the haircut categories pursuant to ECB, the liquidity of securities is also assessed based on available closing prices. To this end, an analysis is conducted to evaluate on how many days no prices were determined within an observation period on which, and therefore, the historic closing price has to be used.

Price Availability

The indicator 'price availability' is derived from the quotient of the number of current closing prices / number of trading days.

The securities are grouped into the following Collateral Classes:

2.3.1 Collateral Class 1

- Haircut Category 1A
- Price availability at least 95%
- Reference Market RMAT01 (WBAG, Official Market)
- ECB haircut max. 5%
- Individual haircut < maximum haircut of the Collateral Class

2.3.2 Collateral Class 2

- Haircut Category 1A or 1B
- Price availability at least 50%
- No restrictions to the reference market
- ECB haircut max 8%
- Individual haircut < maximum haircut of the Collateral Class

2.3.3 Collateral Class 3

- Haircut Category 1A to 1D
- Price availability less than 50%:
- ECB haircut max. 10%
- No further restriction of Liquidity Classes or Reference Market

The table below gives an overview of the assignment of bonds to Collateral Classes:

Credit Rating	Time to Maturity	Haircut Class							
		L1A		L1B		L1C		L1D	
		Straight	Zero	Straight	Zero	Straight	Zero	Straight	Zero
(AAA to A-)*	0-1	0.5	0.5	1.0	1.0	1.5	1.5	6.5	6.5
	1 - 3 years	1.0	2.0	1.5	2.5	2.0	3.0	8.5	9.0
	3 - 5 years	1.5	2.5	2.5	3.5	3.0	4.5	11.0	11.5
	5 - 7 years	2.0	3.0	3.5	4.5	4.5	6.0	12.5	13.5
	7 - 10 years	3.0	4.0	4.5	6.5	6.0	8.0	14.0	15.5
	> 10 years	5.0	7.0	8.0	10.5	9.0	13.0	17.0	22.5
(BBB+ to BBB-)*	0-1	6.0	6.0	7.0	7.0	8.0	8.0	13.0	13.0
	1 - 3 years	7.0	8.0	10.0	14.5	15.0	16.5	24.5	26.5
	3 - 5 years	9.0	10.0	15.5	20.5	22.5	25.0	32.5	36.5
	5 - 7 years	10.0	11.5	16.0	22.0	26.0	30.0	36.0	40.0
	7 - 10 years	11.5	13.0	18.5	27.5	27.0	32.5	37.0	42.5
	10 years	13.5	16.5	22.5	33.0	27.5	35.0	37.5	44.0

Table 2: Overview Collateral Classes

Legend:

Green: Collateral Class 1
Orange: Collateral Class 2
Blue: Collateral Class 3

CCP.A may re-assign an instrument that meets the criteria of Collateral Class 1 or 2 to the next lower Collateral Class at any time.

Clearing Members from non-EU countries are obliged to transfer the securities as collateral to a dedicated collateral securities account of CCP.A (transfer of ownership by way of security). The option of pledging securities on an own pledged collateral account is not available to them unless they provide at their own expense a legal opinion acceptable to CCP.A and confirming the legal enforceability and in particular the possibility of realising the securities collateral in the event of insolvency (see § 11 para. 3 of the General Terms and Conditions Electricity Spot Market).

3 Collateral for the Default Fund Contribution

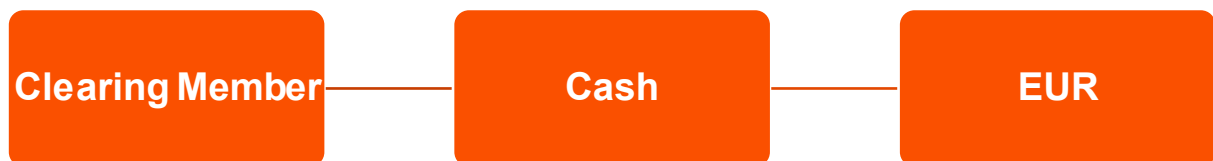


Figure 2 : Accepted collateral for the default fund

3.1 Cash Collateral

Only cash collateral in EUR is allowed for the contribution to the default fund:

- Transfer of required collateral amount to a dedicated cash collateral account of CCP.A
- Deposit on Clearing Member's dedicated pledged collateral account held at Oesterreichische Kontrollbank AG (OeKB AG), which is held separately from the collateral provided for the margin requirement

Clearing Members from non-EU countries are obliged to transfer the required Default Fund amount to a dedicated collateral cash account of CCP.A (transfer of ownership by way of security). The option of depositing cash on an own pledged collateral account is not available to them unless they provide at their own expense a legal opinion acceptable to CCP.A and confirming the legal enforceability and in particular the possibility of realising the Default Fund in the event of insolvency (see § 11 para. 3 of the General Terms and Conditions Electricity Spot Market).

4 Valuation and Haircuts

4.1 Valuation Rules

The following valuation rules are applied to the collateral provided by the Clearing Members to CCP.A:

- a) Cash collateral in EUR is valued at the current cash value without applying any further haircuts.
Example: When EUR 100,000 is deposited in cash, a value of EUR 100,000 is accepted as collateral.
- b) Bank guarantee in EUR is valued at the current cash value without applying any further haircuts.
Example: When a bank guarantee of EUR 100,000 is provided, a value of EUR 100,000 is accepted as collateral.
- c) Securities are valued at the last available price, with haircuts being applied.
Example:
 - Volume deposited: EUR 100,000
 - Last available price: 98%
 - Haircut: 5%
 - Value of the collateral: $100,000 * 0.98 - 100,000 * 0.98 * 0.05 = 93,100\text{€}$

4.2 Determination of Haircuts

The size of the haircut of a security is determined per Collateral Class, applying the following methods:

CCP.A computes the historical volatility per security based on daily closing prices using the same methods and parameters which are applied for the calculation of haircuts for collateral provided for clearing of cash market securities transactions (see document "Collateral Policy", <https://www.ccpa.at/en/risk-management/collaterals-collateral-policy/>).

The volatility of each instrument, calculated by CCP.A, is compared to the haircut published by the ECB for this security. The higher value of the calculated, historical volatility and the haircut considered adequate by the ECB is assigned to the security (individual haircut).

By considering the haircuts defined by ECB, the credit quality, haircut category, remaining time to maturity and type of interest (fixed income = 'straight', zero coupon = 'zero') are implicitly taken into consideration.

The haircut of a Collateral Class is taken from the average haircut of all securities of a Collateral Class, with a minimum and a maximum level being defined for the haircut.

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

Table 3: CCP.A minimum / maximum haircuts per Collateral Class

5 Concentration Limits

To maintain sufficient diversification of the collateral and to ensure that it can be realised promptly when needed, CCP.A has defined concentration limits on two levels:

- Limit per clearing member
- Limit on CCP.A's collateral portfolio

All limits are applied on the required collateral amount only. They do not apply to collateral held by CCP.A in excess of the minimum requirements for margins or default fund contributions.

The following concentration limits have been defined:

Collateral Type	Group	Limit CCP.A total	Limit per member
Cash		100%	100%
Bank guarantee	For margin requirements on the electricity spot market if the clearing member is a non-financial counterparty	100%	100%
thereof in bank guarantees		25%	100%
Individual issuer			
Securities	For margin requirements on the electricity spot market	90%	90%
thereof in securities			
Collateral Classes	1	100%	100%
	2	100%	100%
	3	50%	50%
Issuer group	IG1 Central Bank	100%	100%
	IG2 Central Government	100%	100%
	IG3 Corporate and Other Issuers	25%	50%
	IG4 Credit Institutions	25%	50%
	IG5 Regional/Local Government	25%	50%
	IG6 Supranational Issuer	25%	50%
	IG7 Agency – Non-Credit Institution	25%	50%
	IG8 Agency - Credit Institution	25%	50%
	IG9 Other Financial Corporations	25%	50%
Individual issuer	Central Government		
	AAA-AA Rating (S&P)	75%	100%
	A Rating (S&P)	50%	75%
	All others	25%	50%
	Guaranteed by single credit institution Limit acc. RTS Art 42 (4).	10%	n.a.

Table 4: Concentration limits for the composition of the collateral

6 Wrong Way Risk

Wrong way risk refers to the risk of correlation between the probability of a Clearing Member default and default or deterioration of credit rating of the issuer of the collateral provided by this member.

This would be the case, for example, when a Clearing Member deposits its own issues as collateral. For this reason, CCP.A does not accept any securities as collateral issued by a Clearing Member, by an entity belonging to the same group or by an affiliated company of the group (stake > 20%).

Furthermore, only Clearing Members on the electricity spot market which are non-financial counterparties are allowed to provide commercial bank guarantees as collateral.

CCP.A reviews the composition of the collateral on a monthly basis and may, if necessary, reject securities as collateral for specific Clearing Members if there is a correlation between the exposure and the collateral deposited.

7 Review of the Collateral Composition

7.1 Review of the Securities Collateral

7.1.1 Assessment of credit and market quality

The credit and market quality are assessed based on the Single List published by the ECB at the time of delivery or replacement as well as on a monthly basis.

The assessment includes a review of the haircut category, the reference market as well as the haircuts recommended by the ECB and based on these parameters, the assignment of the deposited collateral to the Collateral Classes is evaluated, and if necessary, adjustments are made. Any adjustments are recorded in the monthly report.

7.1.2 Review of Price Volatility

The price volatility of the securities deposited as collateral should be at a significance level of 99% within the price deviations covered by the haircuts. This is given because the calculation of individual potential volatility per security is done at a confidence level of 99%. The monthly review is done within the scope of the monthly revaluation of the haircuts.

In the case of securities of Collateral Class 1, the volatility corridors defined by the trading system limit the potential price fluctuation. Furthermore, the securities are traded in a single intra-day auction; therefore, there is no intraday price fluctuation.

For collateral not traded in the trading system, the prices are made available by OeKB CSD GmbH. The prices are loaded daily into the PAMP system (see "Margin Calculation Methodology") and are checked within the scope of the monthly revaluation of the haircuts.

7.2 Review of Bank Guarantees

The credit rating of the commercial bank issuing bank guarantees is reviewed based on the credit rating assessment performed by OeKB AG and on external ratings performed by internationally recognised rating agencies (Standard & Poor's or Moody's or Fitch). The review is carried out annually.

7.3 Review of Concentration Limits

The collateral composition of CCP.A and of its Clearing Members is reviewed on a monthly basis.

In the case of limit breach by a Member, the Member is requested to replace the securities within the period defined by CCP.A.

7.4 Review of the Collateral Policy

The Collateral Policy is reviewed at least once a year by the Risk Committee. The review is conducted on the basis of the monthly collateral reports of CCP.A.

8 Reporting

A collateral report is prepared monthly for the management board that contains the following information:

- Cash collateral pledged
- Cash collateral transferred to CCP.A account
- List of bank guarantees provided as collateral
 - ♦ Issuer
 - ♦ Issuer rating
- List of securities deposited as collateral as of the cut-off date and their characteristics
 - ♦ Haircut categories
 - ♦ ECB haircut
 - ♦ Reference market
 - ♦ Issuer type
 - ♦ Asset type
 - ♦ Remaining time to maturity
 - ♦ Collateral class
- Default Fund contributions

Aggregated information of CCP.A's collateral portfolio is published following the "CPMI-IOSCO quantitative disclosure framework for CCPs" on CCP.A's website (section "Statistics" <https://www.ccpa.at/cpmi-iosco/>).