

# **CPMI-IOSCO Principles for Financial Market Infrastructures (PFMI)**

## **KELER CCP's Qualitative Disclosure**

## 1. PRINCIPLE 1: LEGAL BASIS

*An FMI should have a well-founded, clear, transparent, and enforceable legal basis for each material aspect of its activities in all relevant jurisdictions.*

KELER CCP Central Counterparty Ltd. (hereinafter KELER CCP) is a central counterparty operating based on Act CXX of 2001 on the Capital Market (hereinafter: Act on the Capital Market) and Regulation (EU) 648/2012 on OTC derivatives, central counterparties and trade repositories (hereinafter: EMIR).

KELER CCP operates in line with the above regulations, its regulatory documents and the provisions of the decrees of the Central Bank of Hungary (hereinafter: MNB).

KELER CCP has clear, comprehensive, understandable and well organized rules, procedures and contracts which enable and ensure the compliant and successful operation.

KELER CCP's Organisational and Operational Regulation contains rules in line with the nature and the governance of the Company; describes the scope of activities and documents the organization established to perform the tasks, the executive and control bodies of the Company, their responsibilities and authorities, the rights and obligations of employees, the responsibilities and the authorities of the various bodies of the Company.

KELER CCP's General Business Rules lay down the detailed regulation for (i) services provided by KELER CCP, (ii) the rights and obligations of the clients as Clearing Members and Energy Market Non-clearing Members and (iii) the cooperation between KELER CCP and Clearing Members, and between KELER CCP and energy market Non-clearing Members.

KELER CCP's regulatory documents are publicly available on KELER CCP's public website:

<https://english.kelerkszf.hu/Key%20documents/Regulatory%20documents/General%20Business%20Rules/>

KELER CCP has established its documentation in a clear and understandable way. The company provides information on its regulatory framework, business continuity measures, financials, company profile and governance on its public website. MNB as the Competent Authority of KELER CCP also has access to all documents. Furthermore KELER CCP is under supervisory audit by the MNB annually.

KELER CCP's rules, procedures and contracts are enforceable in all relevant jurisdictions. The Legal Counsel and the Chief Compliance Officer are responsible for monitoring the changes of legislative and regulatory requirements and facilitating the necessary updates of the General Business Rules and the relevant internal procedures.

## 2. PRINCIPLE 2: GOVERNANCE

*An FMI should have governance arrangements that are clear and transparent, promote the safety and efficiency of the FMI, and support the stability of the broader financial system, other relevant public interest considerations, and the objectives of relevant stakeholders.*

Along with its parent company, KELER Ltd. (hereinafter: KELER), and thanks to the competitive post-trading services it provides, KELER CCP ensures safe and EMIR-compliant operation of the capital and energy markets.

KELER CCP operates as a successful infrastructure of the capital and energy markets considered as a provider-of-choice on these markets. KELER CCP accomplishes its competitive strategy by deliberately taking advantage of business opportunities and flexibly adapting to changes in the environment, thus becoming a regional service provider.

KELER CCP's strategic directions are the competitiveness, customer focus, reliability, cooperation, and innovation. The strategic directions and KELER CCP's strategy can be found on KELER CCP's website:

<https://english.kelerkszf.hu/KELER%20CCP/Company/Strategy/>

KELER CCP has clear, documented governance arrangements which lay down the direct line of responsibility and accountability. The Organisational and Operational Regulation of KELER CCP contains the direct lines of the responsibilities of each department, which are clearly defined. The above mentioned regulation clearly specifies the roles and responsibilities of KELER CCP's Board of Directors, which is the managing Body of the Company. The shareholders' meeting elects and calls back the members of the Board of Directors. Pursuant to the Articles of Association and the shareholders' meeting resolutions it is in charge of the comprehensive governance of the Company.

The Board of Directors establishes a clear, documented risk management framework that includes the risk tolerance policy, assigns responsibilities and accountability for risk decisions and addresses decision making in crises and emergencies. The list of the current members of the Board of Directors is available on KELER CCP's public website:

<https://english.kelerkszf.hu/KELER%20CCP/Company%20Governance/Board%20of%20Directors/>

KELER CCP has a Supervisory Board which supervises the management of the Company.

The Chief Executive Officer is the operative manager of the Company.

The responsibilities of the Chief Executive Officer:

- prepares for decision making the concepts on the development of the activities of the Company;
- makes recommendations on the activities, operation of the Company and gives related opinion;
- prepares direct reports to and presentations for the Board of Directors,
- prepares and presents internal regulations,
- manages the business activities, the general organizational and personnel issues of the Company (including making sure that sufficient resources are allocated to risk management and compliance), if necessary, preparing them for decision making.

The deputy of the Chief Executive Officer is the Chief Operation Officer.

KELER CCP's management has appropriate skills, experiences, and the integrity necessary to discharge their responsibilities for the operation and risk management of KELER CCP. In line with EMIR, KELER CCP has a dedicated Chief Risk Officer, Chief Compliance Officer and Chief Technology Officer as well.

### 3. PRINCIPLE 3: FRAMEWORK FOR THE COMPREHENSIVE MANAGEMENT OF RISKS

*An FMI should have a sound risk-management framework for comprehensively managing legal, credit, liquidity, operational, and other risks.*

KELER CCP has established a sound risk-management framework for comprehensively manage the risks it identifies. For this reason KELER CCP laid down the documented policies, procedures and systems to identify, monitor, measure and manage risks. The risk management framework is updated regularly. The Chief Risk Officer (as the Head of the Risk Management Department) is responsible for establishing the risk management framework.

The main types of risks inherent in the activities of KELER CCP are as follows: credit, counterparty, market, operational, legal and business risks.

High level risk management rules and procedures are detailed in the General Business Rules of KELER CCP, furthermore the Risk Management Policy, Methodology and Orders contain the detailed risk management rules and procedures of KELER CCP.

The initial margin requirement to be met is calculated at portfolio level with the use of the SPAN® software developed in Chicago. When the portfolio level initial margin requirement is calculated, the margin requirement calculated based on the net open positions at the segregation level concerned and the related initial margin parameter is decreased with the spread discounts determined by KELER CCP (spread discounts may be available within some maturities, settlement days and between some products). The methodology of initial margin determination, the use of the risk measures and the method of spread discount determination are detailed in the methodology document published.

KELER CCP's Risk Management Department applies a standardised approach - value at risk (VaR) - for measuring and reporting risks.

The applied risk-management methodologies are available on KELER CCP's public website:

<https://english.kelerkszf.hu/Key%20documents/EMIR%20Information/Methodology/>

KELER CCP has established its Risk Committee which is a consultant body to the Board of Directors in line with the requirements of and includes six members: the representatives of the clearing members, the independent Board of Directors members and the representatives of the principals of the Company. The Risk Committee discusses every risk related issues, rules, regular reports, any changes of the methodologies. None of the groups of the representatives can have majority in the Risk Committee. The list of the members of the Risk Committee can be found on KELER CCP's public website:

<https://english.kelerkszf.hu/KELER%20CCP/Company%20Governance/Risk%20Committee/>

#### 4. PRINCIPLE 4: CREDIT RISK

*An FMI should effectively measure, monitor, and manage its credit exposure to participants and those arising from its payment, clearing, and settlement processes. An FMI should maintain sufficient financial resources to cover its credit exposure to each participant fully with a high degree of confidence. In addition, a CCP that is involved in activities with a more-complex risk profile or that is systemically important in multiple jurisdictions should maintain additional financial resources sufficient to cover a wide range of potential stress scenarios that should include, but not be limited to, the default of the two largest participants and their affiliates that would potentially cause the largest aggregate credit exposures to the CCP in extreme but plausible market conditions. All other CCPs should maintain, at a minimum, total financial resources sufficient to cover the default of the one participant and its affiliates that would potentially cause the largest aggregate credit exposures to the CCP in extreme but plausible market conditions.*

KELER CCP's procedures regarding the credit risk has been elaborated in line with EMIR and the related technical standards. The framework is reviewed at least yearly, or any time when it is required by market or internal process.

KELER CCP has developed its risk-management methodology to be able to cover its current and potential future exposures to each participant fully with a high degree of confidence using margin and other prefunded financial resources. Furthermore KELER CCP maintains additional financial resources to cover a wide range of potential stress scenarios that should include, but not be limited to, the default of the two participants and their affiliates that would potentially cause the largest aggregate credit exposure for the CCP in extreme but plausible market conditions.

In order to limit its credit exposures KELER CCP imposes, calls and collects margins from the Clearing Members. Such margins must be sufficient to cover potential exposures that KELER CCP estimates will occur until the liquidation of the relevant positions. The initial margin and the turnover margin must be sufficient to cover at least 99% of the exposures movements over an appropriate time horizon. KELER CCP fully collateralizes its exposures with all its Clearing Members at least on a daily basis, including all individual and collective collateral elements provided by the Clearing Members. KELER CCP regularly monitors and, if necessary, revises the level of its margins to reflect current market conditions taking into account any potentially procyclical effects of such revisions.

KELER CCP determines the requirements for the collateral to be provided by each Clearing Member as sum of the following types of individual margin and mutual contribution requirements:

- basic financial collateral - for derivative, multinet and gas markets clearing,
- LIDÓ - for derivative and multinet clearing,
- additional financial collateral - for derivative, multinet and gas markets clearing,
- supplementary collateral- for derivative, multinet and gas markets clearing,
- initial margin - for derivative, multinet and gas markets clearing,
- turnover margin - for gas markets clearing,
- variation margin, in case of multinet,
- Individual contribution to the default funds - for derivative, multinet and gas markets clearing.

The parameters and algorithm of calculation of elements of the financial requirements are published by KELER CCP in an Announcement.

Besides of the margining methodology KELER CCP applies standard risk management monitoring tools, for example partner rating system, risk KYC questionnaire, bankruptcy monitoring. From these resources, monitoring the changes of the counterparty risks is ensured.

Under EMIR, KELER CCP's stress-testing shall ensure that its combination of margin, default fund contributions and other financial resources are sufficient to cover the default of at least the two clearing members to which it has the largest exposures under extreme, but plausible market conditions.

In line with EMIR, KELER CCP Risk Management runs daily stress tests, back tests and analyses their results and runs sensitivity test at least monthly.

The stress tests simulate with scenarios the effect the already occurred (historic) or possibly occurring (hypothetic) scenario events would have on the value of the current open market interest and the level of risk that KELER CCP runs in case of default by clearing members. In line with the requirements of EMIR, the default fund has to cover the higher of the highest risk or the sum of the second and third higher risks (max (1;2+3)) that result from the daily stress tests of KELER CCP. The stress test methodology is detailed in the methodology document published on KELER CCP's website, which is available under the following link:

[Stress test methodology](#)

Back tests check at the portfolio level the extent to which the margining model of KELER CCP can cover the portfolio level variation margin due to the change of prices only. Back tests examine the changes in the value of the position only from one clearing day to the other, the change in the amount of the positions is not covered by the calculation. Regulations require 99% confidence level annually, this is back tested daily. Details of the back test methodology can be found in the methodology document published on KELER CCP's website, which is available under the following link:

[Back test methodology](#)

Stress test and back test results are published each month, please click here to view these results:

<https://english.kelerkszf.hu/Key%20documents/EMIR%20Information/Guarantee%20System/>

Sensitivity tests are made at product and at portfolio level. At product level, we examine what effect the changes in certain parameters (confidence level and holding period) of the calculated risk measure would have on the product's initial margin parameter. At portfolio level, we examine with the historic and hypothetic stress test scenarios what effect the % increase/decrease of margin levels and the termination of spread discounts have on the level of risks to be covered by the default fund. Details on the sensitivity test methodology can be found in the methodology document published.

[Sensitivity testing methodology](#)

## 5. PRINCIPLE 5: COLLATERAL

*An FMI that requires collateral to manage its or its participants' credit exposure should accept collateral with low credit, liquidity, and market risks. An FMI should also set and enforce appropriately conservative haircuts and concentration limits.*

The General Business Rules of KELER CCP contains the detailed order of providing collateral. Accordingly KELER CCP is responsible for the following tasks:

- decision making on suspending the clearing right,
- definition of acceptable instruments,
- definition of detailed condition of acceptance,
- definition of clearing member coverage.

According to the General Business Rules, KELER CCP accepts only currencies and securities listed in the Conditions of acceptance of securities and currencies collateral as financial collateral. Base valuation prices, haircut rates and concentration rates are also included in the related document.

At the appropriate segregation levels, KELER CCP determines the individual collateral requirement to be met. Regarding the multinet, BSE derivative markets all individual collateral elements can be provided in the eligible collaterals stated in the Conditions of acceptance of securities and currencies collateral, except in case of derivative markets the variation margin can be provided only in bank money. The contribution to the default fund is at Clearing Member level and can be provided in bank money only.

In line with the legal requirements KELER CCP accepts only highly liquid instruments as collateral, the value of which is taken into account after the deduction of the appropriate haircut. Haircuts are determined in line with the regulations, depending on the liquidity of the instrument and in the case of securities with the consideration of the credit rating of the issuer, based on the calculation of VaR risk measure. The haircut calculated based on the risk measure is to cover a price change of at least 2 days, with a confidence level of 99.9% that is increased with at least the amount of the procyclicality buffer.

Collateral assets are marked to market daily. If justified intraday mark-to-market can be ordered, the conditions of acceptance or the haircuts can also be modified.

KELER CCP caps the total value of the collaterals accepted with the application of concentration limits in line with EMIR. The list of eligible instruments, related haircut values and the concentration limits are stated in the Conditions of acceptance of securities and currencies collateral.

### **Related link:**

[Conditions of acceptance of securities and currencies collateral](#)

Regarding the Balancing Clearing (IP) and Trading Platform market all individual collateral elements can be provided in the eligible collaterals stated in the Conditions of acceptance of securities and currencies collateral. The contribution to the default fund (TP KGA), is at Clearing Member level and can be met in bank money only.

KELER CCP caps the total value of the collaterals accepted with the application of concentration limits in line with EMIR. The list of eligible instruments, related haircut values and the concentration limits are stated in the Conditions of acceptance of securities and currencies collateral.

**Related links:**

[Conditions of acceptance of securities and currencies collateral](#)

On the CEEGEX spot and HUDEX derivative market all individual collateral elements can be provided in the eligible collateral assets stated in the Conditions of acceptance of securities and currencies collateral, except for the variation margin. The HUDEX derivative market variation margin and contribution to the default fund (HUDEX KGA), are at Clearing Member level and can be met in bank money only.

KELER CCP caps the total value of the individual instruments accepted as it applies concentration limits in line with EMIR. The list of eligible assets with the related haircut value, the concentration limits can be found in the Conditions of acceptance of securities and currencies collateral.

**Related links:**

[Conditions of acceptance of securities and currencies collateral](#)

## Energy markets

The spot and futures market collateral requirement calculated by ECC can be met in settlement currency bank money only towards KELER CCP, KELER CCP transfers it to ECC. KELER CCP reserves the right to collect collateral from the Non-clearing Member in addition to the collateral requirement determined by ECC, such additional collateral can be provided in the eligible assets stated in the effective Conditions of acceptance of securities and currencies collateral.

In line with the legal requirements KELER CCP accepts only highly liquid assets as collateral, the value of which is taken into account after the deduction of the appropriate haircut. Haircuts are determined in line with the regulations, depending on the liquidity of the instrument and in the case of securities after consideration of the credit rating of the issuer, based on the calculation of VaR. The haircut calculated based on the risk measure is to cover a price change of at least 2 days, with a confidence level of 99.9% that is increased with at least the amount of the procyclicality buffer.

Collateral instruments are marked to market daily. If justified intraday mark-to-market can be ordered, the conditions of acceptance or the haircuts can also be modified.

KELER CCP caps the total value of the accepted collateral assets with the application of concentration limits in line with EMIR. The collateral requirement in addition to the requirement of ECC can be met in the eligible assets stated in the valid Conditions of acceptance of securities and currencies collateral.

**Related links:**

[Conditions of acceptance of securities and currencies collateral](#)

## Place of collateral

Regarding the capital markets the collateral assets remain at the CMs'/NCMs' cash accounts, they are pledged with KELER CCP's beneficiary at KELER CSD, they are not transferred to KELER CCP's accounts, hence the ownership of the collateral assets remain with the CMs/NCMs, the segregation of the assets are ensured in line with EMIR.

In case of Balancing Clearing (IP), Trading Platform, CEEGEX, HUDEX Gas and energy markets served as GCM, KELER CCP has opened several cash accounts for several purposes (purchase price settlement, variation margin settlement, collateral accounts, technical accounts for default management, default fund etc.) at the chosen settlement banks. The gas market CMs and the energy market NCMs must choose one settlement bank to open the necessary cash accounts with.

KELER CCP has opened cash accounts for their gas market CMs for collateral assets. Collateral assets are held on specific custody subaccounts under the main cash account owned by KELER CCP. The balances of these cash subaccounts and the default fund amounts are considered as custody account balances. In this case the account balances held with the settlement banks shall not comprise part of the assets of the liquidation of the settlement bank, the account balances will remain in KELER CCP's property no third party can establish legal demand on them, as these accounts are special, "custody accounts" (in Hungarian "letéti számla").

Subaccounts are strictly labelled as client assets segregated both from KELER CCP's own assets and due to the special account title also segregated from the assets of the settlement banks in line with EMIR.

In the case of energy market clients, the collateral instruments (calculated by ECC and others required by KELER CCP) are kept entirely on the account owned by KELER CCP maintained at Citibank, from which the collateral need specified by ECC will be collected to ECC's settlement bank.

The default fund accounts related to the gas markets are similarly registered on segregated "special custody accounts" which have been opened under the main account of KELER CCP with the settlement banks.

Please note that under "custody account" we refer to the type of service defined in the Hungarian Act CCXXXVII of 2013 on Credit Institutions and Financial Enterprises as safe custody.

Pursuant to the cooperation agreement to be concluded with the settlement banks, KELER CCP has immediate access to the default funds and collaterals placed or blocked on or under the main account owned by KELER CCP within the bank's opening hours without prior notification obligation and without restrictions.

## 6. PRINCIPLE 6: MARGIN

*A CCP should cover its credit exposures to its participants for all products through an effective margin system that is risk-based and regularly reviewed.*

The General Business Rules of KELER CCP contains the principles for its applied margin system, however the detailed rules can be found in the Risk Management methodology of the Company. KELER CCP as a central counterparty operates a margin obligation system, which is in line with the risks related to the cleared markets by KELER CCP.

The Basic Financial Collateral is to be provided upon entry into the markets, that KELER CCP clears on one occasion. The objective is to cover individual exposures arising from same day trading. Its amount is fixed for the individual trading venues and is published by KELER CCP in the applicable announcement. However on the energy markets, the basis financial collateral amounts depends on the number of markets the Non-clearing Member enters, in case of entry into several markets the collateral requirement can be less.

The amount of the Basic Financial Collateral can be supplemented with the liquidity currency deposit (LIDÓ) by markets, if it is justified by the risk of products cleared in foreign currencies on the markets cleared. The amount of LIDÓ is published in the applicable announcement jointly with the amount of the Basic Financial Collateral.

The amount of initial margin is determined by product and is stated in the applicable announcement that KELER CCP publishes on its website. The objective of initial margin is to cover the potential change in the product price of at least two days, with a confidence level of at least 99%. KELER CCP determines the initial margin after the calculation of the VaR (Value at Risk). The applied parameters (minimum holding period of 2 days, level of confidence of 99% and look back period of at least 1 year). The calculated risk measure is supplemented with at least the buffer against procyclicality in line with the legal requirements.

The initial margin requirement to be met is calculated at portfolio level with the use of the SPAN® software developed in Chicago. When the portfolio level initial margin requirement is calculated, the margin requirement calculated based on the net open positions at the segregation level concerned and the related initial margin parameter is decreased with the spread discounts determined by KELER CCP (spread discounts are available within some maturities, settlement days and between some products).

The methodology of initial margin determination, the use of risk measure and the method of spread discount determination are detailed in the methodology document published.

The turnover margin is determined based on historic and imbalance data, its objective is to determine margin requirements proportionate to risks, related methodology and parameters are published by KELER CCP in the applicable announcement on its website.

## 7. PRINCIPLE 7: LIQUIDITY RISK

*An FMI should effectively measure, monitor, and manage its liquidity risk. An FMI should maintain sufficient liquid resources in all relevant currencies to effect same-day and, where appropriate, intraday and multiday settlement of payment obligations with a high degree of confidence under a wide range of potential stress scenarios that should include, but not be limited to, the default of the participant and its affiliates that would generate the largest aggregate liquidity obligation for the FMI in extreme but plausible market conditions.*

KELER CCP has established a robust liquidity risk management framework which includes effective operational and analytical tools to identify, measure and monitor the settlement and funding flows on an ongoing and timely basis, including the use of intraday liquidity. KELER CCP regularly assesses the design and operation of its liquidity management framework, including considering the results of the stress tests.

The liquidity plan approved by KELER CCP's Board of Directors, is part of KELER CCP's Risk Management framework.

KELER CCP's liquidity risk management framework ensures that KELER CCP is able to manage payment and settlement obligations in all relevant currencies as they fall due, including where appropriate intraday. The framework also includes the assessment of its potential future liquidity needs under a wide range of potential stress scenarios (the stress scenarios includes the default of clearing members). KELER CCP's liquidity plan includes the relevant procedures, for example managing and monitoring the liquidity needs; maintaining sufficient liquid financial resources in order to cover the liquidity needs; identifying sources of liquidity risk; the process in the event of liquidity shortfalls and also the replenishment of any liquid financial resources.

Regarding the capital markets guaranteed by KELER CCP as a central counterparty, KELER, the parent undertaking of KELER CCP, performs the settlements, custody and nostro account maintenance. Regarding the energy and gas markets, the Settlement Banks perform the settlements and the account maintenance. Regarding the markets cleared by KELER CCP, KELER, the Settlement Banks, and other third party commercial banks can be taken into account as a liquidity provider for KELER CCP in order to manage potential liquidity needs. KELER CCP continuously monitors its actual liquidity needs of each and every business lines and concludes liquidity financing credit line contracts with its liquidity providers accordingly.

KELER CCP has to ensure liquidity in four currencies, on the one hand on the capital markets the relevant foreign currency is the HUF, on the other hand on the gas and energy markets the relevant foreign currencies are EUR, USD and GBP.

All own assets of KELER CCP which can be used for liquidity management are highly liquid.

In the course of default management, for the purpose of creating temporary liquidity, KELER CCP is entitled to conclude securities repurchase (repo) agreement for the securities collateral taken from the guilty member.

With regards to the capital market and the HUDEX derivative gas market, on a real time basis KELER CCP is able to monitor all of the purchase prices and variation margins in the clearing system, and also a collateral assessment function is available, which can immediately query the amount of the collaterals from the Collateral system.

In case of the TP market, KELER CCP measures the financial limit coverage, and based on the received data from FGSZ Zrt. (as the Hungarian gas transmission system operator) KELER CCP concludes the daily clearing and monitors the potential liquidity needs.

Regarding the energy markets, ECC is responsible for the clearing, KELER CCP does not monitor intraday the non-clearing members purchase price/variation margin requirements, but limits the exposure towards the energy market non-clearing member by applying ECC's spot limit management (pre-trade limits) and total margin limit (includes the derivative margin as well) as a real barrier.

KELER CCP has access to its own accounts at KELER and the Settlement Banks without any restrictions in every time, as well as to the data in the clearing system.

Under the amount of the liquid resources KELER CCP means the members' individual and collective collaterals, furthermore KELER CCP's own resources which can be used for these purposes.

The trading, clearing and settlement currencies are harmonized in case of each and every market place with each other as well as with the currency of the default funds and required collaterals.

Taking into account the provisions of EMIR and based on historical and hypothetical scenarios, KELER CCP performs stress tests on a daily basis. Furthermore the stress tests' results are sent via email to the CRO for information every day, who may decide on the necessary actions to be taken.

KELER CCP has clear procedures for using the results and analysis of its stress tests to evaluate and adjust the adequacy of its liquidity risk management framework and liquidity providers.

KELER CCP assesses the effectiveness and appropriateness of stress test assumptions and parameters on an annual basis in case of the comprehensive validation of the models and the supervision of the parameters.

According to regulations, the whole risk management framework has been validated by external independent experts. KELER CCP annually reviews its applied risk management models, in case of a significant modification KELER CCP needs to acquire the MNB's, ESMA's and the College's prior consent and an external, independent expert's validation for the application.

## 8. PRINCIPLE 8: SETTLEMENT FINALITY

*An FMI should provide clear and certain final settlement, at a minimum by the end of the value date. Where necessary or preferable, an FMI should provide final settlement intraday or in real time.*

KELER CCP's General Business Rules contains the provisions of the Settlement Finality, which has been developed taking into account the provisions of the Act XXIII of 2003 on the settlement finality in payment and securities settlement systems (hereinafter: Tvt.) and the Settlement Finality Directive (98/26/EC Directive).

The regulated market and the gas market transactions confirmed by KELER CCP are considered as accepted transactions, irrespective of the method of data acceptance (real-time, batch). Transactions accepted by KELER CCP are unmodifiable, undeletable and irrevocable by the Clearing Member. Accepted transactions can be modified by the Market Operator until the beginning of the clearing procedure only, and are considered as irrevocable and final afterwards. The time to receive transactions is determined in KELER CCP's General Business Rules.

Transactions with multinet settlement are considered received on the day when the conditions stated in the General Business Rules are met and:

- the BSE or MTS sent the transaction to KELER CCP intra-day, before the acceptance of transactions was stopped pursuant to KELER CCP's General Business Rules.
- KELER CCP confirmed to the BSE or MTS the receipt of data at the end of the day and
- it found no discrepancy in the transactions received intra-day, real time but not yet accepted by KELER CCP and the transactions of the summary transaction (batch) file sent at the end of the day, all of their parameters were matching.

If the parties notice a discrepancy in the transactions received intra-day, real time but not yet accepted by KELER CCP and the transactions of the transaction (batch) file sent at the end of the day, the reason of the discrepancy is examined and reconciled until the discrepancy is resolved. KELER CCP can accept the transaction only that the BSE or MTS sent to KELER CCP intra-day, real time before the sending of transactions was stopped in line with the General Business Rules of KELER CCP. In the case of discrepancy, following resending the end-of-day summary transaction (batch) file KELER CCP confirms that data was received and indicates in the confirmation the transactions that are considered accepted. In the case of the opening of insolvency proceedings the intra-day data received will prevail.

For energy market transactions concluded by the energy market Non-clearing Member, KELER CCP undertakes the obligation of financial settlement from the time ECC receives the transaction.

Regarding the Settlement Finality, common rules are in force in the European Union. Whether a participant who is established in third country would like to join to KELER CCP, in those cases the condition of the accession is attaching the country opinion document as well, which is a statement issued by an external legal expert. This statement ensures that the participants are able to meet their obligations; furthermore the country law provides a certain level of protection as stated in the Tvt. for other participants.

## 9. PRINCIPLE 9: MONEY SETTLEMENTS

*An FMI should conduct its money settlements in central bank money where practical and available. If central bank money is not used, an FMI should minimise and strictly control the credit and liquidity risk arising from the use of commercial bank money.*

Clearing Members are required to make sure that the financial positions in line with segregation are available in the settlement accounts not later than the defined deadline on Settlement Day (SD, where SD = Settlement Day), from these accounts KELER CCP will take them to its technical account for the entire amount. (Partial settlement is not available.) If all the transactions are settled on time (including securities delivery positions also), the clearing system of KELER CCP posts credit transactions automatically related to both securities and cash settlement.

### Multinet clearing

Related to spot securities clearing financial positions are settled on a T+2 basis. The settlement currency is in line with the product specification provided by the exchange, by default Forint (HUF), otherwise Euro (EUR) or US Dollar (USD).

During securities market clearing, the purchase price on trade day is settled in line with segregation and the European market practice, with respect to all securities transactions on the 2 (second) clearing day after the T day the transaction is made (on T+2 where T = Transaction Day).

During settlement, the financial settlement positions are formed at the segregation levels of Clearing Member own and omnibus principal, while Non-clearing Member positions are settled jointly with the Clearing Member omnibus principal positions. The place of settlement on the cash side is KELER, or in the case of credit institutions the MNB. The place of settlement for products with FX settlement is always KELER.

### Derivative clearing

Related to derivative clearing on the capital markets, financial positions are settled daily. The settlement currency is in line with the product specification provided by the exchange, by default Forint (HUF).

During derivative clearing the calculated variation margin is settled on the first clearing day after the day the trade is made (on T+1, where T = Transaction Day).

During settlement, the financial settlement positions are formed at the segregation levels of Clearing Member own and omnibus principal, while Non-clearing Member financial settlement positions are settled jointly with the omnibus principal positions.

The place of settlement for HUF is KELER, or in case of credit institutions it is the MNB. The place of settlement for products with FX settlement is always KELER.

### Gas markets clearing

Related to IP and TP transaction clearing financial positions are settled daily. The settlement currency is Euro (EUR).

Following the closing of the gas month, KELER CCP prepares the monthly clearing report to advise the clearing member on monthly financial result. The monthly purchase price invoice is issued based

on the monthly clearing report. Monthly financial result is settled on the 5. (fifth) day after the monthly clearing (in case it is a non-business day, on the following first settlement day) following the gas day clearing as an aggregated value of IP and TP transactions modified by FGSZ division of results.

The settlement positions for the purchase price amount adjusted with VAT corresponding to the VAT residence are formed in line with the transactions of the Clearing Member during the period, KELER CCP determines the purchase price of all transactions as a single net financial position. On the financial netting KELER CCP issues the so-called compensation minutes.

The place of financial settlement is the chosen Settlement Bank by the Clearing Member.

Related to CEEGEX/HUDEX clearing, financial positions are settled daily. The settlement currency is Euro (EUR).

The daily financial settlement is based on a single aggregated and netted financial position. KELER CCP nets the financial positions arising from the spot transactions, futures variation margin and futures transactions related physical delivery transactions of the Clearing Member.

The place of financial settlement is the chosen Settlement Bank by the Clearing Member.

### **Energy markets clearing**

Related to energy market clearing, financial position and margin settlement takes place daily. The settlement currencies are Euro (EUR) and British Pound (GBP). The settlement currency of margin settlement is solely Euro (EUR).

Daily financial settlement is based on a single netted financial position by currencies. KELER CCP nets the financial positions of the energy market Non-clearing Member's spot market transactions, derivative variation margin and physical delivery transactions arising from futures transactions.

The place of settlement on the cash side is generally the own cash account of the client kept by the chosen Settlement Bank. The place of settlement for clients registered in Serbia is Vojvođanska banka (member of OTP Group).

In case of Balancing Clearing (IP), Trading Platform, CEEGEX, HUDEX Gas and energy markets served as GCM, KELER CCP has opened several cash accounts for several purposes (purchase price settlement, variation margin settlement, collateral accounts, technical accounts for default management, default fund etc.) at the chosen settlement banks. The gas market CMs and the energy market NCMs must choose one settlement bank to open the necessary cash accounts with.

KELER CCP has intraday credit lines with the settlement banks as liquidity providers at the same

## PRINCIPLE 10: PHYSICAL DELIVERIES

*An FMI should clearly state its obligations with respect to the delivery of physical instruments or commodities and should identify, monitor, and manage the risks associated with such physical deliveries.*

KELER CCP's rules and the obligations of the participant are contained in the General Business Rules of KELER CCP

KELER CCP does not guarantee the physical delivery of the instruments.

In securities market clearing the securities position on trade day is settled in line with segregation, the European market practice, with respect to all securities transactions on the second (2.) clearing day after the T day the transaction is made (on T+2 where T = Transaction Day).

During settlement, the settlement positions are formed at the Clearing Member own and omnibus principal segregation levels, while for Non-clearing Members, typically in line with the decision of the Clearing Member, the securities positions are consolidated in the Non-clearing Member account. The place of settlement on the securities side is always KELER.

Clearing Members are required to make sure that the securities positions in line with segregation are available in the settlement accounts not later than 14:00 on Settlement Day (SD), from these accounts KELER CCP will take them to its technical account for the entire quantity. If all the transactions are settled on time (including the settlement of financial positions also), the clearing system of KELER CCP posts credit transactions automatically related to both securities and cash settlement.

Should any Clearing Member fail to meet securities delivery obligations by the applicable deadline, KELER CCP declares default, cancels the defaulted transactions from multinet clearing, then settlement is completed and KELER CCP starts the default procedure.

Related to derivative clearing certain transactions are settled physically, these transactions are as follows:

- futures equities transactions ('FISZER' trade);
- futures commodity transactions.

The securities transactions with physical delivery are settled at 10:00 on the second (2.) clearing day after expiry, based on Delivery Versus Payment (DvP) principle. For the trades that remain open upon expiry, KELER CCP determines the securities and cash settlement positions in line with the segregation. First, KELER CCP settles the available quantity of securities, i.e. it takes the settled securities from the seller to the KELER CCP technical account and credits the securities account of the buyer, and then it debits the cash account of the buyer with KELER or the MNB against the KELER technical account and credits the cash account of the seller.

In the Commodities Section some products are settled with physical delivery, with settlement to be completed until the forty-fifth (45.) day after expiry (T+45 where T = Transaction Day), however, the delivery cycle can be extended based on the statement of the counterparties. The transactions made on the Trading Platform and on Information Platform are settled with physical delivery, however, FGSZ, the transmission system operator (TSO) controls and guarantees the process of

physical delivery. KELER CCP is not involved in the process of physical settlement; it does not guarantee physical settlement.

The transactions made on CEEGEX spot and HUDEX gas markets are settled with physical delivery, however, FGSZ as the TSO controls and guarantees the process of physical delivery. The role of KELER CCP in the process of physical settlement is limited to sending the nomination message to FGSZ; it does not guarantee physical settlement. The nomination message informs the system operator on the following gas day one direction delivery positions of CEEGEX and HUDEX Clearing Members based on the CEEGEX transactions.

Energy market transactions can be settled financially or with physical delivery. The system operator of the energy market concerned is responsible for the process of physical delivery. KELER CCP is not involved in the process of physical settlement; it does not guarantee physical settlement.

## 10. PRINCIPLE 12: EXCHANGE-OF-VALUE SETTLEMENT SYSTEMS

*If an FMI settles transactions that involve the settlement of two linked obligations (for example, securities or foreign exchange transactions), it should eliminate principal risk by conditioning the final settlement of one obligation upon the final settlement of the other.*

KELER CCP receives the trades in real time that were matched and were executed in line with segregation and clears such trades in line with the most advanced multilateral netting principle (BIS Model 3). KELER CCP guarantees the positions that are formed as the result of multilateral netting. Thus in line with segregation KELER CCP determines the securities and financial settlement positions by Clearing Members. The financial settlement position is determined based on trade price. Due to multilateral netting the considerable number of transactions to be settled daily is reduced to a fraction of the original transaction number, this serves the interest of market participants efficiently and securely.

During the securities market clearing, in line with the best practice in Europe, all trades are settled on the second (2.) clearing day after trading (on T+2, where T = Transaction Day).

KELER CCP calculates margin requirement for the open positions; this is to be met on the first (1.) day after calculation.

## 11. PRINCIPLE 13: PARTICIPANT-DEFAULT RULES AND PROCEDURES

*An FMI should have effective and clearly defined rules and procedures to manage a participant default. These rules and procedures should be designed to ensure that the FMI can take timely action to contain losses and liquidity pressures and continue to meet its obligations.*

KELER CCP's General Business Rules clearly defines the default cases, in which KELER CCP differentiates two types of defaults, financial and securities defaults. The General Business Rules also contains the rules and procedures of the default cases declaration and the default management.

Default in markets guaranteed by KELER CCP occurs, if the Clearing Member fails to meet financial (variation margin, collateral, etc.), securities or other obligations related to the settlement of transactions or positions in the required manner and time.

In all guaranteed regulated markets, with respect to Clearing Members KELER CCP acts in line with its General Business Rules in case of securities default (multinet settlement management, etc.) management, financial (purchase price, collateral, fee, etc.) default management, according to the procedure of multinet settlement default management.

Following the declaration of default, the defaulting Clearing Member informs KELER CCP in writing on the reason of default within the same clearing day until 16:00 p.m.

Pursuant to the MNB Order on providing information to the central bank information system, in case of default event, MNB is directly and immediately informed. Pursuant to Section 28 (4) of the Act on the MNB, in the course of checking related to the provision of data the MNB is entitled to investigate at the defaulting Clearing Member the facts in direct connection with the reason of default.

In case of default on the capital markets KELER or in case of default on the energy markets the settlement banks act based on individual order given by KELER CCP. These Rules and Fee Schedule contain detailed rules regarding the fulfilment of default and fee payment.

In extraordinary situations described in the KELER CCP internal regulation on the management of extraordinary situations KELER CCP can deviate from the default rules with prior Board of Directors approval. As collateral for the defaulted transaction KELER CCP takes collateral from the defaulting Member.

Based on the General Business Rules, in case of a financial default, the clearing (and trading) right of the participant is suspended immediately and from the available collaterals - in line with the default waterfall rules - the amount of the default is covered.

In the case of financial default by Clearing Members the default waterfall operated by KELER CCP and the financial resources provided by KELER CCP are the following:

1. defaulting Clearing Member instruments according to segregation,
2. defaulting Clearing Member default fund contribution,
3. dedicated own resources (skin in the game) of KELER CCP allocated to default fund markets
4. remaining part of default fund,

5. other financial resources of KELER CCP.

In case of default of the Clearing Member at any segregation level, the following collaterals of the Clearing Member can be used:

- basic financial collateral
- LIDO,
- additional financial collateral imposed previously for risk mitigating purposes,

The direct participants, as general and direct clearing members, and energy market non-clearing members have the right to use the guarantee undertaking service of KELER CCP.

Under EMIR, KELER CCP must perform annual tests for the default procedures, in which the participants must be involved in every simulation exercise.

Short summary of KELER CCP's default management per market can be found on KELER CCP's public website:

[https://english.kelerkszf.hu/Clearing%20operation/Financial%20market%20\\_2f%20Multinet/Default%20Management/](https://english.kelerkszf.hu/Clearing%20operation/Financial%20market%20_2f%20Multinet/Default%20Management/)

[https://english.kelerkszf.hu/Clearing%20operation/Financial%20market%20\\_2f%20Derivatives/Default%20Management/](https://english.kelerkszf.hu/Clearing%20operation/Financial%20market%20_2f%20Derivatives/Default%20Management/)

[https://english.kelerkszf.hu/Clearing%20operation/Gas%20market%20\\_2f%20Balancing%20Platform\\_2fTrading%20Platform/Default%20Management/](https://english.kelerkszf.hu/Clearing%20operation/Gas%20market%20_2f%20Balancing%20Platform_2fTrading%20Platform/Default%20Management/)

[https://english.kelerkszf.hu/Clearing%20operation/Gas%20market%20\\_2f%20CEEGEX\\_2fHUDEX/Default%20Management/](https://english.kelerkszf.hu/Clearing%20operation/Gas%20market%20_2f%20CEEGEX_2fHUDEX/Default%20Management/)

<https://english.kelerkszf.hu/Clearing%20operation/Energy%20market%20GCM%20service/Default%20Management/>

## 12. PRINCIPLE 14: SEGREGATION AND PORTABILITY

*A CCP should have rules and procedures that enable the segregation and portability of positions of a participant's customers and the collateral provided to the CCP with respect to those positions.*

The applied rules and procedures can be found in the General Business Rules of KELER CCP which can be available through KELER CCP's website. KELER CCP offers segregation possibilities stated in Article 37 (9) of EMIR to its Clearing Members.

The dimensions of segregation are as follows:

- position management,
- margin calculation and collateral pledging,
- settlement.

With segregation, KELER CCP ensures that Clearing Member own and principal positions are registered separately. In multilateral clearing principal positions are posted in a so-called omnibus principal position management account, i.e. the transactions of individual principals are not registered one by one. In derivative clearing the principal positions are posted in the so-called individual principal position management accounts (PVE accounts), i.e. each principal transaction is registered individually.

KELER CCP ensures the segregated management of Non-clearing Member positions, thus Non-clearing Member own and principal positions are registered separately from Clearing Member own and principal positions. Non-clearing Member principal trades, identically to the Clearing Member principal positions, are posted in the omnibus principal position management account.

In line with EMIR requirements KELER CCP ensures the possibility for each and every principal and non-clearing member to have an Individually Segregated Account (ISA) and choose a back-up Clearing Member. ISA accounts have an extra fee that can be found transparently in KELER CCP's publicly available Fee Schedule. Based on the General Business Rules, KELER CCP ensures the portability of the non-defaulting clearing participants in case of a clearing member default - both in case of ISA and in case of omnibus client account.

To facilitate the portability, KELER CCP has introduced the back-up clearing member institution, which is entitled to take over the positions and collaterals of the performing segregated Non-clearing Member or segregated principal, including the principal providing indirect clearing services and the indirect principal as well, from their non-performing Clearing Member and that concluded an agreement to this effect with the segregated Non-clearing Member or the segregated principal in advance, including the principal providing indirect clearing services and the indirect principal as well and is reported by them to KELER CCP.

Following default by the Clearing Member in its omnibus principal account, within 1 hour after the call, the Clearing Member in default makes a written statement on the Non-clearing Member, principal code to which the default is related.

Positions and collaterals of the performing Non-clearing Member, principals can be transferred within three clearing days of the declaration of default. If transfer is not completed within the deadline, KELER CCP applies compulsory provisions and acts in line with the provisions herein stated with respect to the untransferred positions and collaterals.

KELER CCP decreases the open interest of the position management account involved with the position transferred, at the same time increases the open position of the position management account holder receiving the position with the position taken over.

Regarding IP, TP, CEEGEX / HUDEX gas markets, the trading participants become Clearing Members directly, thus can trade for their own account only. KELER CCP offers full segregation to segregate KELER CCP's own assets and the assets of Clearing Members from each other. Furthermore regarding energy market clearing, the trading participants become Non-clearing Members of KELER CCP directly and can trade for their own account only. KELER CCP offers full segregation to segregate the own assets of KELER CCP and the assets of the individual energy market Non-clearing Members from each other.

### 13. PRINCIPLE 15: GENERAL BUSINESS RISK

*An FMI should identify, monitor, and manage its general business risk and hold sufficient liquid net assets funded by equity to cover potential general business losses so that it can continue operations and services as a going concern if those losses materialize. Further, liquid net assets should at all times be sufficient to ensure a recovery or orderly wind-down of critical operations and services.*

KELER CCP has developed its robust management and control system to identify, monitor and manage general business risks, including losses from poor execution of business strategy, negative cash flows, or unexpected and excessively large operating expenses.

The continuous monitoring of the risks falls into the Risk Management Department roles of KELER CCP, which is assured by the real time monitoring with several daily reports and tests. Furthermore additional tests and reports are performed by KELER CCP Risk Management Department on monthly, quarterly and annual basis.

The annual comprehensive assessment and the analysis regarding the capital requirement include the general business risk assessment. The calculation methodology of the general business risk capital requirement ensures that the KELER CCP takes into consideration the potential impacts on the cash-flow and the capital.

In accordance with the EMIR provisions, KELER CCP keeps dedicated own resources and invests them in highly liquid financial instruments which are able to ensure the continuous operation in case of suffering significant losses. For the general business risk KELER CCP maintains capital requirement. KELER CCP's Investment Policy regulates that KELER CCP shall hold 100% liquid resources for covering general business risks. The amount of the capital requirement and the Investment Policy is reviewed in every year.

The European Recovery and Resolution regulation has not yet been finished, however KELER CCP has already established a concept for the final loss allocation. Final loss allocation provisions can be found in the General Business Rules of KELER CCP.

Based on Article 16 of EMIR, the central counterparty cannot use the entire amount of its shareholders' equity, thus it cannot be subject to insolvency proceedings as the direct result of default. Accordingly, related to default management, KELER CCP as a central counterparty licensed under EMIR cannot use the entire amount of its shareholders' equity either related to default management. Under the above stated requirement of EMIR, KELER CCP is required to set aside an amount stated in regulation for recovery operation, any restructuring. Recovery occurs after KELER CCP used all the guarantee elements according to the default waterfall described in the General Business Rules of KELER CCP related to the default concerned (recovery situation). If recovery fails, as part of performing its resolution responsibilities, the MNB declares KELER CCP subject to resolution if the conditions of resolution are fulfilled and the appropriate resolution measure(s) are implemented. The final loss allocation rules of KELER CCP are determined in line with the recommendations of CPMI-IOSCO.

The final loss allocation section regulates the steps that KELER CCP takes following the depletion of the whole "normal" default waterfall, if there is any remaining loss, in order to ensure continuous market operation, until default is successfully closed or the MNB declares KELER CCP subject to resolution proceedings.

#### 14. PRINCIPLE 16: CUSTODY AND INVESTMENT RISKS

*An FMI should safeguard its own and its participants' assets and minimise the risk of loss on and delay in access to these assets. An FMI's investments should be in instruments with minimal credit, market, and liquidity risks.*

KELER CCP holds its own and its participants' assets at KELER, and at several settlement banks.

KELER as a central securities depository is a key capital market infrastructure, strictly regulated and supervised entity, which is also the parent undertaking of KELER CCP.

Providing clearing services on the gas and energy markets KELER CCP is in cooperation with commercial, settlement banks. The settlement banks are regularly evaluated and internally rated by KELER CCP. KELER and the settlement banks must comply with the CRR provisions which can verify that these entities have robust accounting practices, safekeeping procedures and internal controls that fully protect our Company and our participants.

KELER (as a central securities depository and a specialized credit institution), and the settlement banks are operated under the Hungarian and EU laws and regulations. It is worth to be noted here, that the settlement banks must also comply with the Settlement Finality Directive.

KELER CCP ensures that it is able to promptly access to its assets through arrangements between KELER and KELER CCP, furthermore between the settlement banks and KELER CCP.

KELER CCP has implemented its Investment policy in line with the provisions of EMIR, which was approved by the Board of Directors of KELER CCP. This ensures that KELER CCP can invest its own financial resources only in highly liquid financial instruments with minimal credit and market risk. The investment policy is reviewed every year.

KELER CCP can utilize collaterals and default fund contributions in case of default only; these cannot be invested or reused.

During default management, for temporary liquidity creation purposes, KELER CCP is entitled to conclude repo transaction for the collateral securities withdrawn from the defaulter.

With respect to its investments, KELER CCP applies the following concentration limits: The value of the KELER CCP securities portfolio (not including the repo portfolio) cannot exceed 80% of the shareholders' equity that is monitored monthly by the risk management. In case of concentration limit breach KELER CCP is obliged to immediately inform MNB as the Supervisory Authority.

The Investment Policy of KELER CCP is available on the Company's website:

<https://english.kelerkszf.hu/Key%20documents/Regulatory%20documents/KELER%20CCPs%20Investment%20Policy/>

## 15. PRINCIPLE 17: OPERATIONAL RISK

*An FMI should identify the plausible sources of operational risk, both internal and external, and mitigate their impact through the use of appropriate systems, policies, procedures, and controls. Systems should be designed to ensure a high degree of security and operational reliability and should have adequate, scalable capacity. Business continuity management should aim for timely recovery of operations and fulfilment of the FMI's obligations, including in the event of a wide-scale or major disruption.*

Under EMIR, KELER CCP, as a central counterparty, is required to manage operational risks. The capital requirement of operational risks for KELER CCP is quantified in line with the requirements of Commission Delegated Regulation (EU) No 152/2012 (EMIR RTS): KELER CCP has chosen the Basic Indicator Approach method in line with the CRR Article 315.

In addition to the calculation of strictly regulated capital requirement, the provisions require KELER CCP to perform self-assessment, active risk management with focus directly operational risks as well. Accordingly, a comprehensive system of operational risk management is implemented. The purpose of the system is to enable KELER CCP to be continuously aware of its own risks, to monitor, if possible, reduce such risks; furthermore, to collect past loss data and perform expert estimates for rarely occurring potential events that can result in serious losses.

KELER as the parent company of KELER CCP operates an Operational Risk Committee (ORC) which reviews, discusses the quarterly reports, proposals, where representatives of KELER CCP can participate strictly whether a topic related to KELER CCP is on agenda. The ORC makes decisions on the proposals related to operational risk management in order to manage or decrease risks. In line with best practice, operational risk exposure is monitored via with KRIs (key risk indicators) and reported by KELER CCP to KELER.

## 16. PRINCIPLE 18: ACCESS AND PARTICIPATION REQUIREMENTS

*An FMI should have objective, risk-based, and publicly disclosed criteria for participation, which permit fair and open access.*

KELER CCP has established its access and participation requirements under the Act on the Capital Market, EMIR, the Tvt, and regarding the gas market clearing activities under the Act XL of 2008 on Natural Gas Supply.

The participation requirements are publicly available for all participants in KELER CCP's General Business Rules through the Company's website under the following link:

<https://english.kelerkszf.hu/Key%20documents/Regulatory%20documents/General%20Business%20Rules/>

All of the prerequisites of a Clearing Membership and energy market Non-clearing Membership relation, the obligations of the Clearing Member and the energy markets Non-Clearing Members can be found in the General Business Rules of KELER CCP. These transparent prerequisites reflect on the potential compliance, partner- and financial risk issues as well as the applicant's operational capacities.

The prerequisites shall be met by the participant during the onboarding and during the entire course of the business relationship. In case of any changes to the relevant circumstances of the clients, KELER CCP must be informed (as stated in the General Business Rules). KELER CCP continuously monitors the compliance with the conditions via KYC questionnaires as well as supervisory news, and performs press investigation related to clearing members. Complying with the financial obligations KELER CCP conducts collateral verification. Without having the appropriate operational resources (including but not limited to IT conditions), the Clearing Member can not be able to use KELER CCP's services.

The conditions of the participation requirements are transparent, objective; do not contain unique or discriminative arrangements.

The General Business Rules of KELER CCP not just contains the requirements of the participation of the Clearing Member, but also the consequences of the breach of any requirements (suspension of clearing right / imposing additional financial collaterals / termination of the contract).

## 17. PRINCIPLE 19: TIERED PARTICIPATION ARRANGEMENTS

*An FMI should identify, monitor, and manage the material risks to the FMI arising from tiered participation arrangements.*

KELER CCP has established tiered participation arrangements under the Act on the Capital Market and EMIR on the capital markets it serves, while as on gas markets only direct clearing is available.

KELER CCP's General Business Rules regulates the rights and obligations of the Clearing Members and KELER CCP in respect of the Clearing Membership System.

KELER CCP operates a Clearing Membership System for the purpose of use of the guarantees. Participants of the Clearing Membership System are as follows:

- the General Clearing Member,
- the Individual Clearing Member,
- the gas market Clearing Member,
- the Non-clearing Member,
- the Principal,
- the Indirect Principal,
- the Settlement Agent,
- and KELER CCP.

With respect to the Clearing Membership System and the Energy Market Non-clearing Membership System operated by KELER CCP, direct participants are the General Clearing Member, the Individual Clearing Member, the Gas Market Clearing Member and the Energy market Non-Clearing Member according to the General Business Rules a. All other participants of the Clearing Membership System and the Energy Market Non-Clearing Membership System are considered as indirect participants. The guarantee undertaking service of KELER CCP covers the previously defined direct participants only.

For efficient and prudent risk management purposes, membership criteria are based on the risks of the members and the market segment, and thus it depends on the type of clearing membership and the individual risks of the market concerned. When the criteria are formed KELER CCP sets identical terms for participants on markets with identical risk profile. Clearing Membership System and Energy market Non-Clearing Membership System can be available if the (potential) members meet the membership criteria (including margin and settlement requirements) during entire course of membership.

Regarding Non-clearing Members, KELER CCP gathers information through the Non-Clearing Member registration form (this document is provided by the General Clearing Member), furthermore with regards to the Principals only in case of a named Principal KELER CCP gathers information from the clearing members.

On a daily basis KELER CCP monitors the turnover of the indirect participants. KELER CCP monitors the aggregated turnover amount on the spot market, however on the derivative market KELER CCP

monitors the individual turnover of the participant. During the stress tests KELER CCP takes the segregation into account. Indirect participants with the highest amount of turnover possess the most indirect participants. These participants are mostly banks. On the derivative markets the biggest indirect participants possess hundreds of indirect participants.

The risk of the indirect participants is monitored by KELER CCP on a daily basis. If the indirect participant's initial margin requirement exceeds the defined threshold on the derivative market, then KELER CCP is entitled to order the naming of the indirect participant at its Clearing Member.

KELER CCP's tiered participation arrangement can be found in its General Business Rules, which is available through the Company's website:

<https://english.kelerkszf.hu/Access/Clearing%20membership/Overview/>

<https://english.kelerkszf.hu/Key%20documents/Regulatory%20documents/General%20Business%20Rules/>

## 18. PRINCIPLE 20: FMI LINKS

*An FMI that establishes a link with one or more FMIs should identify, monitor, and manage link-related risks.*

KELER CCP has established standard access with the European Commodity Clearing AG (ECC), established in Leipzig; where KELER CCP as a General Clearing Member provides clearing services to Non-Clearing Members. The relationship between KELER CCP and ECC is governed the German law as it is accepted as well as by EMIR and the Hungarian legislative. Thus this relationship does not qualify as an interoperable relationship.

Regarding ECC, the rules and procedures of General Clearing Members are in force to KELER CCP. As ECC and also KELER CCP are central counterparty under EMIR, both CCPs have business continuity plan.

KELER CCP is responsible towards ECC for the risks they take, i.e. in case of Non-clearing Member default on purchase price or margin KELER CCP has to provide the missing amount to ECC. KELER CCP collects the margin requirement from its Non-clearing Members as it is determined by ECC and forwards it to ECC. KELER CCP is entitled to collect additional margin from the Non-clearing Members both on the spot and the futures market due to taking additional risk. KELER CCP publishes the margin amounts in the applicable announcement. KELER CCP contributes to the default fund of ECC until an amount publicly available on the website of KELER CCP, the Non-clearing Members have to finance in the proportion of their activity any obligation above that.

In energy market clearing trading participants become the Non-clearing Members of KELER CCP directly and can trade for their own account only. KELER CCP offers full segregation to segregate the own assets of KELER CCP and the assets of the individual energy market Non-clearing Members.

Financial default occurs if the energy market Non-clearing Member fails to meet the applicable deadline for the margin requirement or the daily purchase price settlement requirement. Once default is established, KELER CCP takes steps without delay to suspend the trading right of the defaulting Non-clearing Member with ECC and takes the available collaterals in line with the sequence of use stated in the General Business Rules. Once default is closed KELER CCP calculates and collects the default fees.

In case of establishing new link, KELER CCP prepares a risk assessment in order to be able to identify the possible risks, which is part of the proposal for the decision-making of KELER CCP's Board. The Risk Committee also discusses the idea of establishing a new link, and if it is needed the Risk Committee provides advice to the Board.

Currently KELER CCP does not have any other link with participant, established in third-country. When KELER CCP establishes links it takes account the EMIR and PFMI provisions.

## 19. PRINCIPLE 21: EFFICIENCY AND EFFECTIVENESS

*An FMI should be efficient and effective in meeting the requirements of its participants and the markets it serves.*

Annually KELER and KELER CCP as a group conduct a common client satisfaction survey among its clients. In every even-numbered years online survey, and in every odd-numbered years personal and online survey are conducted by KELER Group in order to assess the participants' needs.

In each case following the assessment of the replies received, KELER and KELER CCP publish a communication on the results on their websites.

The KELER Group Complaint Handling Regulation clearly defines the rules and procedures regarding the complaints and claims about KELER CCP's operation.

During the process of complaints handling the underlying reasons are explored and if necessary certain complaint escalates to other forums of the Group, such as Management Meeting, Operating Risk Management Committee, and Portfolio Council, which can give a long term solution in order not to repeat.

The extract of the regulation is publicly available through KELER CCP's public website under the following link:

<https://english.kelerkszf.hu/Key%20documents/Regulatory%20documents/Extract%20of%20the%20Complaint%20Handling%20Regulation%20of%20KELER%20Group/>

KELER CCP keeps records about the received complaints and claims.

KELER CCP has clearly defined goals and objectives, which are measurable and achievable. KELER CCP has established mechanism for the regular review of the efficiency and the effectiveness, for this reason KELER CCP measures the developments regularly in a period of a project plan, which is usually defined for 5 years:

- first review: launching the product/service/new system
- second review: in the middle of the defined period of the project
- third review ~ final measurement: at the end of the last year of the project plan

However due to the project period changes, the time of the back testing might change as well.

KELER CCP usually performs benchmarking analysis in order to compare its applied fees with the prices of the companies which provide similar services.

## 20. PRINCIPLE 22: COMMUNICATION PROCEDURES AND STANDARDS

*An FMI should use, or at a minimum accommodate, relevant internationally accepted communication procedures and standards in order to facilitate efficient payment, clearing, settlement, and recording.*

KELER CCP uses internationally accepted and own communication procedures and standards in order to facilitate efficient payment, clearing, settlement and recording.

KELER CCP uses the following communication procedures:

- SWIFT - internationally accepted
- KID - developed by KELER
- SOAP based web service communication through the internet.

KELER CCP uses the following communications standard:

- SWIFT 15022 standard
- SOAP standard
- KIS (own standards)
- XML messages

KID system established by KELER, ensures electronic communication between KELER, KELER CCP and their Clients.

## 21. PRINCIPLE 23: DISCLOSURE OF RULES, KEY PROCEDURES, AND MARKET DATA

*An FMI should have clear and comprehensive rules and procedures and should provide sufficient information to enable participants to have an accurate understanding of the risks, fees, and other material costs they incur by participating in the FMI. All relevant rules and key procedures should be publicly disclosed.*

KELER CCP has clear and comprehensive rules and procedures which are fully disclosed to the participants on KELER CCP's website.

KELER CCP's publicly available documents can be found through the below link:

<https://english.kelerkszf.hu/Key%20documents/Regulatory%20documents/General%20Business%20Rules/>

At least the following rules of KELER CCP are publicly available:

- General Business Rules
- Fee Schedule
- KELER CCP's Management of Extraordinary Situations
- KELER Group's Management of Extraordinary Situations
- Extract of Complaint Handling Regulation of KELER Group
- KELER CCP's Investment Policy
- KELER CCP's Service Map

Besides of the rules, KELER CCP's announcements, condition lists, statistics, financial reports, CPMI-IOSCO disclosures can be found as well on the Company's website.

KELER CCP continuously consults with participants through several forums, thus on the one hand it helps to interpret the publicly available rules for the participants, and on the other hand the clients are able to indicate their needs directly, that KELER CCP tries to implement in every occasion.

The General Business Rules and the rules are accepted by the Board of Directors and approved by the MNB, which is also an assurance that the texts are clear and understandable.

The review and the modification of the General Business Rules can be initiated by the business areas, the management and also the Legal Counsel of the Company.

Basically the modification of the rules might be needed due to launching new services, development of the current services or the risk management of the Company, and even following the changes of the legislation. Modification of the General Business Rules might be initiated in written by the Supervisory and Oversight Authority, the Exchange and any client as well.

The changes of the General Business Rules and the Fee Schedules are disclosed in every occasion before entry into force. The participants are informed about the publications of the rules from newsletter, KID, and website (kozzetetelek.hu).

In every two year the National Competent Authority (MNB) of KELER CCP executes an oversight examination based on the CPMI-IOSCO disclosure framework for financial market infrastructures.

As it is required, KELER CCP quarterly completes and discloses publicly the responses to the CPSS-IOSCO quantitative disclosure framework for financial market infrastructures. The publication can be found on the Company's public website under the following link:

<https://english.kelerkszf.hu/Key%20documents/CPMI%20IOSCO%20Disclosures/>

Besides of the rules, KELER CCP regularly publishes statistics on its public website both in English and Hungarian, which are available through the below link:

<https://english.kelerkszf.hu/Key%20documents/Statistics/BSE%20daily%20open%20positions/>