

part of eex group



Implementation Regulations of EEX concerning technical equipment (Technical Implementation Regulation)

The English version is for informal use
only. The German version is legally
binding.

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1. Definition

1.1 Network of the Electronic Trading System

The Network of the electronic trading system EUREX T7 used by the European Energy Exchange ("EEX") includes the entirety of all hardware elements gathered from each Network node as well as all necessary components for the connection of the Network nodes (leased lines for telecommunications, etc.) which form the technical basis for the implementation of trading on EEX.

If the trading participants select an alternative connection for their access to a system (cf. subsection 2.3), which is solely based on the internet or a combination of leased line and internet, the EEX Network shall not include the internet connections.

1.2 EDP system

In addition to the network of the respective trading system, the EEX EDP system also comprises the operation-ready installed application of the exchange or corresponding components in the participant's trading systems.

1.3 Access alternatives

Access alternatives are options for the technical connections between the EEX network and the member front-end systems of the trading participants. The access alternatives outlined in this section can also be ordered and operated by the customer in combination with each other.

1.3.1 Network access

Trading participants can choose between the following alternatives for connection to the EEX trading systems:

Depending on the respective system, EEX provides several network access types which can be used in combination with the corresponding connection options in order to ensure access to the exchange systems.

Access types:

- Leased lines: Connections are provided with service-oriented bandwidths on physical lines.
- iAccess (VPN): A point-to-point connection is established via the public internet with an IPSec encoded tunnel between the participant's network and an access point of the exchange (virtual private network - VPN).
- Native Internet: The connection is established via an internet connection which is not encoded specifically and can be used in combination with services which use their own, self-contained encryption mechanism for the data transfer (e.g.: Eurex Trader GUI, Common Report Engine)

Access options:

- Standard connection (2 leased lines): This access option will reasonably be switched with separate routes or, alternatively, it is leased from two different providers.
- Combined: In the case of the “combined” option, the trading participant’s access is established via a leased line and an internet back-up connection whose technical design corresponds to an internet connection with iAccess. In the event of a failure of the leased line, the internet is available as an alternative for the connection to the EEX system. Failover is effected automatically.
- iAccess: In the case of iAccess, the trading participant’s access is exclusively effected via the internet. The selection of the provider and the implementation of the connection lie within the responsibility of the trading participant. Availability and performance are determined and ensured by the internet provider selected by the trading participant. EEX will technically reduce the data throughput which is theoretically possible via the internet to the bandwidth of the other access alternatives in order to ensure comparable access times to the EEX system for all access alternatives.

A Member Front-End System has to be installed at the trading participant. EEX, in turn, ensures the internet accessibility of the exchange with a sufficient availability and corresponding security, authentication of the trading participants and a firewall infrastructure.

Trading participants with the clearing status of Direct Clearing Members (DCM) and General Clearing Members (GCM) are exclusively connected to the systems of EEX via the Standard or Combined options.

1.3.2 Service-oriented channels on leased lines/VPN connections

Depending on the trading system used, certain services are available with a specific bandwidth on leased lines and/or VPN connections with the help of separate, service-oriented channels.

1.3.3 Access version for customers

- EUREX T7: The trading participant’s access to a graphical user interface (Eurex T7 Trader GUI, Eurex WebTrading Service) is established via the internet or the service-oriented channel on a leased line/VPN connection. At the trading participant, one work station is required for each workplace. This work station is connected to a multi-member front-end system operated by EEX via the internet. A firewall concept and a personal secure ID token, which has to be used at the trading participant and is provided to the trading participant by EEX for every trader, and the use of a public/private key protect the EEX trading system against unauthorised third-party access. If several users are connected to the trading system, one token per user is required for simultaneous access. This token is not specific to the work station.
- EEX TT Screen with access to the DBAG trading systems: EEX can provide trading participants wishing to trade via EEX TT Screen with a simple access version. The EEX TT Screen is provided as SAAS solution in cooperation with Trading Technologies Incorporated, a world leading enterprise in the field of high performance trading platforms. The EEX TT Screen is

connected via an internet connection which the customer itself has to provide with the data processing centre of Trading Technologies which is directly connected with the trading systems of DBAG.

- EEX GlobalVision PortalSM with access to the DBAG trading systems: Customers operating their own Trayport[®] Trading GatewaySM can use the market integration into their Trayport[®] Trading GatewaySM via the direct connection to the GlobalVision PortalSM provided centrally by Trayport[®]. Responsibility for the establishment, installation and configuration (e.g. product mapping) of the technical infrastructure consisting of the Trayport[®] Trading GatewaySM, the Trayport[®] Frontend, the Trayport[®] GlobalVision PortalSM Translator and the technical network connection rests exclusively with the trading participant. The EEX GlobalVision PortalSM is always cleared by Trayport[®] for defined versions of the Trayport[®] Trading GatewaySM Server and the Trayport[®] GlobalVision PortalSM Translator, separate clearance by EEX is not required.

1.3.4 Trayport[®] Trading GatewaySM

Trayport[®] Trading GatewaySM is an application by Trayport Ltd. which permits trading via brokers or market platforms including the EEX Spot and Derivatives Market via a member front-end. In this context, the different markets can be integrated / aggregated within one screen for the trader. As an interface between the Trayport[®] Trading GatewaySM and the EEX trading systems (EUREX T7), the Software Trayport[®] GlobalVision PortalSM Translator software, which was developed by Trayport[®], is required for connection to the GlobalVision PortalSM provided by EEX.

1.3.5 Trayport[®] GlobalVision PortalSM

Trayport[®] GlobalVision PortalSM is a Trayport Ltd. application operated by EEX which enables trading participants using the Trayport[®] Trading GatewaySM application to access the EEX trading systems (EUREX T7). In this process, the connection to the EEX GlobalVision PortalSM is entirely created via Trayport[®] software products, product mapping for which is exclusively carried out in the Trayport[®] software products.

1.4 Member Front-End Installation

A member front-end system consists of one or several computers (several workstations) facilitating trading and clearing on EEX and input devices and network components via which integration into the EEX network is effected. Furthermore, the member front-end installation comprises all the components required in order to maintain the member's internal network connections (e.g. gateways, routers, etc.) in as far as such do not lie in a network area reserved for EEX ("logical network"). Further hardware elements are not part of the member front-end installation but can be connected to it in as far as these fulfil the interface requirements established by EEX and are registered at EEX in as far as required.

Several trading participants can trade on EEX by means of a common Member Front-End System (Multi Member Front-End System). In such cases, EEX increases its requirements for availability. A Multi Member Front-End System must be installed as a 2-LAN configuration. The connection of workstations to a Multi Member Front-End System lies within the sole responsibility of the trading

participant. EEX does not assume any responsibility for the availability and performance of the Multi Member Front-End System.

1.5 Logical network

In addition to the EEX Network, the Logical Network of EEX includes all components at the exchange participant's site which are connected to the Network for technical reasons provided they are located in a Network area reserved for EEX.

1.6 Data transmission equipment

Telecommunication within the EEX Network is effected by means of data transmission equipment consisting of access points, routers and leased lines. The connection of a Member Front-End System or a Multi Member Front-End System shall always be made via an access point.

1.7 Order Routing Systems

Order Routing Systems are electronic order forwarding systems which are used by trading participants to transmit exchange orders, i.e. exclusively for the entry, modification and deletion of exchange orders. Order Routing Systems may be connected to the Member Front-End System via a defined interface so that the orders transmitted via this system can be directly channelled into the EEX trading system.

1.8 Direct Electronic Access

Direct electronic access is an agreement which does not focus on order routing and in the framework of which an Exchange Participant permits an indirect trading participant¹ to use the User ID of the Exchange Participant so that it can forward orders directly to the T7 trading system electronically or register trades (DEA). DEA includes agreements which include the use of the technical access of the Exchange Participant by the indirect trading participant (DMA) and those agreements under which the technical access of the Exchange Participant is not used by it (Sponsored Access).

1.9 Systems for Algorithmic Trading

Systems for algorithmic trading are computer algorithms that determine single order parameters automatically. However, systems which are only used for forwarding of orders to one or several trading venues, for processing of orders without the determination of order parameters, for the confirmation of orders or for batch processing of executed orders (in particular, Order Routing Systems), as well as systems that exclusively manage Iceberg Orders, are exempt from this. Order parameters within the meaning of clause 1 are particularly decisions about whether the order is to be initiated, the point in

¹ Indirect trading participants (*mittelbare Handelsteilnehmer*) [...] are persons who electronically forward orders to a trading participant with these orders then being forwarded from the trading participant to the exchange with restricted human involvement or without human involvement, or who use a direct electronic access.

time, the price or the quantity of the order or how the order is adapted with limited or no involvement of humans at all, after its submission.

1.10 Third-Party Software (“Third-Party-Software”)

Third-Party Software is software which is not provided by EEX and connected by a trading participant to the programmable interface of the Member Front-End System of EEX.

1.11 Location

Location within the meaning of this provision means the entirety of all business premises occupied by a trading participant within a building in which Member Front-End Installations have been installed for the purpose of active trading on the EEX markets. Business premises in which Member Front-End Installations are only employed in emergencies or for the purpose of engaging in technical simulated tests are not deemed to constitute a location within the meaning of this provision.

2. Access to the EEX Trading System, Modifications

2.1 Member Front-End Installations

2.1.1 Connection to the EEX Trading System

2.1.1.1 General connection requirements

The trading participant is only technically connected to the EEX trading system upon admission for participation in trading (line-bound connection).

If the trading participant selects an internet-based connection alternative, such trading participant can only establish a connection to EEX for participation in exchange trading once it has implemented the connection via the internet with the help of an internet provider.

All connection alternatives to the trading systems are based on the precondition that the requirements of the EEX Exchange Rules and the technical requirements for the hardware, software and the network as well as their configuration contained in these Technical Implementation Regulations are fulfilled and that the EEX system – in particular, trading and clearing - is not compromised as a result of the connection regardless of whether it is because of the location or for other technical reasons. The trading participant shall check this by means of conformity tests according to Sect. 2.1.1.4

EEX can measure the load generated by the individual Member Front-End Installations on the EEX EDP system and, if required, it can restrict this load through technical measures if this is required for reasons of system security or for other serious reasons. It is up to every trading participant to ensure that its company is authorised to connect its Member Front-End Installation(s) located at its premises to the EEX trading system and to carry out trading and clearing at EEX in accordance with the national laws and regulations effective in the country of its location.

2.1.1.2 Installation at the trading participant's locations

All Member Front-End Installations if not employed in emergencies or for the purpose of participating in technical simulations must, in principle, be installed at the locations of the trading participant and should be configured redundantly in order to increase failure safety.

Upon receipt of a written application from a trading participant or from an applicant for exchange admission, the EEX Management Board may permit the installation and operation of a Member Front-End Installation at the business premises of a third party engaged by the trading participant or applicant for exchange admission to operate such Member Front-End installation if the application of and compliance with the provisions of the Exchange Rules and Regulations of EEX and supplemental conditions thereto are ensured, in particular, in respect of such third party. By means of appropriate agreements concluded with the third party, the trading participant or applicant for exchange admission shall ensure that the third party grants EEX the right to inspect the business premises of such third party at all times for the purpose of determining compliance with the requirements for the installation and operation of a Member Front-End Installation.

2.1.1.3 Clock Synchronization

EEX and its Exchange Participants must synchronise their business clocks with Coordinated Universal Time (UTC) in order to record the date and time of each reportable event. In addition, an operator of a trading venue must ensure that the business clocks maintain the following required level of accuracy according to the gateway-to-gateway latency of the respective trading system:

Gateway-to-Gateway-Latency of the trading system	Maximum Divergence from UTC	Granularity of the Timestamp
> 1 millisecond	1 millisecond	1 millisecond or better
≤ 1 millisecond	100 microseconds	1 microsecond or better

Accuracy requirements based on gateway to gateway latency

The EEX trading system T7 provides a UTC time stamp with a granularity of 1 microsecond, which meets the requirements of Delegated Regulation (EU) 574/2017 for the two possible accuracy classes shown in the table above.

When trading through the systems of EEX, Exchange Participants ensure that the clocks they use to record reportable events correspond to the degree of accuracy listed in Table 2 of the Annex to the Delegated Regulation (EU) 574/2017.

Exchange Participants who carry out several types of trading activities when trading through the systems of EEX ensure that the systems they use to record reportable events correspond to the degree of accuracy applicable to the respective trading activities as set out in Table 2 of the Annex to the Delegated Regulation (EU) 574/2017.

Exchange Participants must introduce a system of traceability to UTC. Exchange Participants must be able to prove traceability to UTC through the design, functions and specifications of the traceability system. Exchange Participants must be able to specify precisely where in the traceability system the time stamp is assigned and prove that this location remains consistent. Exchange participants shall review the compatibility of the traceability system with this Regulation at least once a year.

2.1.1.4 Conformance testing

- (1) Before it is connected to the EEX trading system, the trading participant must ensure with the help of conformance testing that the basic functions of its Member Front-End Installations comply with the EEX requirements. Conformance testing is used to verify the functioning of the following:
 - the ability of the Member Front-End Installations to interact as expected with the EEX matching logic and the adequate processing of the data flows from and to EEX;
 - the basic functionalities such as the submission, modification or cancellation of an order or an indication of interest, static and market data downloads and all incoming and outgoing business data flows;
 - the connectivity, including cancellation upon an interruption of connection (cancel on disconnect command), market data feeds loss and throttles, and the recovery, including the intra-day resumption of trading and the handling of suspended instruments or non-updated market data.

- (2) The conformance testing has to be carried out within the test environment provided by EEX which corresponds to the Commission Delegated Regulation (EU) 2017/584, art. 9 para. 4 and 7. The trading participant can also have the conformance testing carried out by a suitable provider.

2.1.2 Updates of the EEX trading system, updates of the Member Front-End System, regression test

Before any update of the EEX trading system which can have an impact on the systems connected to it or an update of their Member Front-End System, the trading participants are obliged to carry out other conformance testing according to section 2.1.1.4 (here: regression test) – either on their own or through a suitable provider. EEX shall inform the trading participants of any planned update of the EEX trading system within the meaning of sentence 1, at the latest, four weeks before the modification becomes effective.

2.2 Access of several Member Front-End Systems

A trading participant may apply for the connection of several Member Front-End Installations. EEX may limit the number of Member Front-End Installations applied for by a trading participant to the extent that such action is necessary for reasons relating to system performance or for other serious reasons.

2.3 Systems for Algorithmic Trading

2.3.1 Connection of systems for algorithmic trading

Systems for algorithmic trading may only be connected to the EEX trading system after the trading participant has successfully tested the system for algorithmic trading in accordance with section 2.3.1.1 and has notified the Management Board of the Exchange of the connection in accordance with section 2.3.1.2.

2.3.1.1 Market disruption test and conformance testing

- (1) Before the connection of a system for algorithmic trading to the EEX trading system, the trading participant must have successfully tested the system for algorithmic trading to ensure:
- that it does not contribute to or create disorderly trading conditions or causes such (market disruption test) and
 - that it is able to interact as expected with the EEX matching logic and to adequately process the data flows from and to EEX (conformity test).
- (2) The market disruption test has to be carried out within a suitable test environment, the conformance testing has to be carried out within the test environment which is provided by EEX and complies with the requirements of the Delegated Regulation (EU) 2017/584, art. 9 para. 4 and 7. The trading participant can also have the tests carried out by a suitable provider.

2.3.1.2 Notification

Before connecting systems for algorithmic trading to the EEX trading system, the Management Board of the Exchange has to be notified thereof by the respective exchange participant. The notification has to include an algo ID assigned to the system for algorithmic trading by the trading participant as well as a detailed and comprehensible description of functionalities used and the trading strategy/strategies pursued by the system for algorithmic trading. The notification has to state the names and the respective contact details of the exchange traders that will be responsible for the respective system for algorithmic trading. With the notification, the exchange participants have to confirm,

- that the respective system for algorithmic trading
 - has been successfully tested by the trading participant itself or by a provider commissioned by it (market disruption test and conformance testing, section 2.3.1.1);
 - is sufficiently resilient, come with sufficient capacity and are subject to adequate trading thresholds and upper trading limits;
 - avoid the submission of erroneous orders or a functionality of the system that causes dysfunctions of exchange trading or could contribute thereto;
 - cannot be used for a purpose that violates European or national laws against market abuse or the rules of the exchanges it is connected to;
 - is continuously parameterized by an exchange trader admitted for the exchange participant at the exchange and controlled by an exchange trader admitted for the exchange participant at the exchange,
- that the exchange participant
 - has efficient emergency arrangements at its disposal, to deal with unforeseen disruptions in its systems and safeguard,
 - will flag any use of the system for algorithmic trading by entering the corresponding algo ID;
 - properly monitors its systems.
 - has safeguarded, that records about each change in the computer algorithm are kept.

2.3.2 Regression test upon updates of the EEX Trading System

Before an update of the EEX trading system which can affect the trading participants' systems for algorithmic trading, the trading participants are obliged to re-test their systems for algorithmic trading – on their own or through a suitable provider – in accordance with section 3.3.1.1 (Conformance testing) and to confirm successful completion of the test to EEX in writing. EEX will inform the trading participants of any planned update of the EEX trading system according to sentence 1 four weeks before such become effective.

2.3.3 Updates of a system for algorithmic trading

Before an update of a system for algorithmic trading, the trading participants are obliged to

- re-test the updated system in accordance with section 2.3.1.1 and
- to notify the Management Board of the Exchange of the planned update. Such notification shall include an exact and comprehensible description of the update and its effects on the functionalities of the system for algorithmic trading and the trading strategy/strategies pursued as well as a confirmation pursuant to section 2.3.1.2. sentence 4.

2.3.4 Ban on the use of systems for algorithmic trading

The Management Board of the Exchange will permanently or temporarily, completely or partially prohibit the use of a system for algorithmic trading as described in Sect. 1.8, if one of the prerequisites mentioned in Section 2.3.1.1 or 2.3.1.2 did not exist or ceased to exist afterwards, the exchange participant did not comply with the requirements according to Sect. 2.3.1, 2.3.2 or 2.3.3 or the duty of disclosure according to Sect. 3 paragraph 4 sentence 4 No. 5 of the German Exchange Act, or a disturbance of the proper exchange trading or the proper execution of exchange trades impends for other reasons. The partial prohibition of the usage may be effected telephonically. The exchange participant has to turn-off immediately the system for algorithmic trading concerned if its use is prohibited permanently or temporarily, completely or partially.

2.4 Connection of Order Routing Systems

After making written application and receiving approval thereof from the Management Board of EEX, a trading participant is entitled to connect an Order Routing System via a defined interface if:

- before being channelled into the trading system, the transmitted orders pass an electronic filter which is installed in the Member Front-End Installation, which checks and releases orders for further transmission according to parameters defined by the trading participant;
- the filter has been allocated an approved exchange trader who is responsible for the definition of parameters, the control and monitoring of the filter, and who can prevent the forwarding of orders at any time;
- the trading participant has informed the Management Board of EEX of the personal user ID of the allocated exchange trader in writing;
- the Order Routing System is used exclusively for the transmission of client orders,
- in those cases in which third parties not admitted to the exchange are able to enter orders using the Order Routing System, the number, operating location and the identity of the user of the input devices connected to the Order Routing System must have been communicated to the Market Surveillance of EEX. This also applies to changes with respect to such input devices. The trading participant must oblige the user to comply with the Exchange Rules and Regulations. Should the user fail to do so, the trading participant shall immediately prevent it from continuing to use the Order Routing System.

2.5 Granting DMA

Subject to the following conditions, Exchange Participants may grant their clients DMA to EEX:

- It has notified the intended granting of the DMA to the Management Board of the Exchange.
- It has ensured contractually that only such persons enter, change or delete orders within the T7 trading system that are personally reliable and have the required professional qualification.
- It submits its potential DEA Clients to a due-diligence examination in order to ensure that these comply with the requirements of the Delegated Regulation (EU) 2017/589 and the rules and regulations of EEX.
- It ensures that orders and trades which are entered into the trading system or concluded in it by a person using a granted DEA are labelled as such. Labelling can also be effected by using a special ID.
- It ensures contractually and continuously monitors that his potential DEA-Clients comply with the required pre- and post-trade controls according to the Delegated Regulation (EU) 2017/589.
- It ensures that the DMA granted to his clients is used exclusively for the transmission of client orders
- It obliges its DEA-Clients to comply with the Exchange Rules and Regulations.

If DEA-Clients fail to comply with their obligations, the Exchange Participant must immediately exclude such DEA-Clients from further use of the DMA.

2.6 Granting Sponsored Access

An Exchange Participant is entitled to grant Sponsored Access upon written application and permission of the Management Board of the Exchange. Permission shall be granted if, in addition to the conditions set out in point 2.5, the following requirements are fulfilled:

- Exclusively the Exchange Participant is entitled to specify or amend the parameters for the pre- and post-trade controls for its DEA-Clients.
- The parameters for risk controls and trade limits established by EEX are observed.

If DEA-Clients fail to comply with their obligations, the Exchange Participant must immediately exclude such DEA-Clients from further use of the Sponsored Access.

2.7 Pre- and Post-Trade Controls

An Exchange Participant must carry out pre-trade controls on the price, volume, value of orders and system usage before entering the orders into EEX's EDP system as well as post-trade controls, each meeting the requirements of Delegated Regulation (EU) 2017/589.

3. Technical Requirements

The technical requirements presented in the context of these Implementation Regulations are binding on all trading participants; divergence from such regulations shall require the written consent of EEX. EEX may at any time examine the configurations and Network parameters of the trading participants and require the correction of divergent values. In the event that changes become necessary, the trading participant is required to institute such technical modifications to its Member Front-End Installation that may be laid down by EEX and to effect such changes within any timeframe that may be imposed by EEX.

Upon request from EEX, the trading participant is obligated to grant EEX access to the technical infrastructure employed by it for establishing a connection with the EDP system of EEX to facilitate the execution of technical inspections by EEX. Such access and/or any right of inspection shall not extend to customer related data.

4. Hardware

4.1 Requirements

EDP equipment which ensures the orderly execution of trading and clearing via the respective system has to be available for the trading participant.

4.2 Admissible hardware platforms

EEX shall specify permitted hardware platforms for equipping the member front-end installation connected to the trading and/or clearing system.

4.3 Approval of hardware configurations

All hardware configurations planned by a trading participant must be approved by EEX – after submission of the configurations questionnaire provided by EEX and to be filled out by the trading participant – prior to their installation; the same shall also apply with regard to modifications.

4.4 Responsibility for operation

The operation of the member front-end installation and, if applicable, the Trayport Global Vision Gateway and the Trayport® GlobalVision PortalSM Translator lie within the sphere of responsibility of the trading participant. By means of the orderly operation of its member front-end or its Trayport® GlobalVisionSM installation, the trading participant shall guarantee that trading and clearing on EEX shall not be compromised either in its process or in its functionality on account of such operation.

5. Software

5.1 EEX software

EEX grants the trading participant a revocable, non exclusive right to use the application software. This right to use can be substantiated by further agreements between EEX and the trading participant, if applicable. A trading participant, or any third party contracted by the trading participant, must not modify the version of the application software as it is made available by EEX and must not alter or copy such software without the prior consent of EEX. The foregoing shall not apply to the production of copies of the application software if such copies are produced solely for data storage purposes. The trading participant must not delete or alter any proprietary notices (including but not limited to copyright and trademark notices). Every trading participant is responsible for the installation of the application software on the components of its Member Front-end Installation.

5.2 Member Operating System Software

EEX shall specify each version of the operating system software valid at the time, including all necessary components used for operating the current version of the EEX software on the Member Front-End Installation.

5.3 Registration of Third-Party Software

If trading participants intend to connect Third-Party Software to the programmable interface of the DBAG trading systems, these trading participants can be required by EEX to assign an electronic identifier to this Third-Party Software before connecting it to the programmable interface, observing the instructions of EEX as to the systematic compositions of such identifier and to have the Third-Party Software registered at EEX.

The trading participants shall ensure that an individual identifier assigned to the Third-Party Software is always sent to the EEX trading system together with each transmission when the registered Third-Party Software communicates with the EEX trading system via the programmable interface. In case the EEX trading system is impaired by the Third-Party Software connected to the programmable interface, EEX may prohibit the connection of such software with immediate effect.

5.4 Responsibility for using Third-Party Software

In as far as the application software made available by EEX shall include interfaces for front and back office systems, the trading participant itself is responsible for the programs which use these interfaces and shall ensure functioning of the software in line with the rules and regulations of EEX.

5.5 EEX TT Screen

The access to the EEX TT Screen is provided by EEX. The terms of use stated in the End User Licence Agreement (EULA) agreed by the trading participant before installation of EEX TT Screen shall apply.

6. Authorisation Level of Data Transmission Equipment

A trading participant may not use the data transmission equipment which serves the purpose of trading and clearing on EEX for any other purposes without the prior written approval of EEX. However, EEX reserves the right to also use its data transmission equipment for trading and clearing on other institutions.

7. Transmission Alternatives for Telecommunications

7.1 Leased Lines

7.1.1 Responsibility for the leased lines

EEX shall control the leased lines for the entire physical Network of EEX. Installation and operation of the leased lines for telecommunications which are necessary for the connection between the Member Front-End Installation and EEX shall be carried out by EEX or may be contracted out by EEX.

7.1.2 Range of leased lines

EEX shall make available a connection to the trading participant's location. The precondition for this is that the transmission paths and types of connection supported by EEX are available for a trading participant, and can be established and operated at normal conditions and adequate expense while ensuring that the security and quality standards set forth by EEX are attained.

7.1.3 Access to the EEX Network

In the case of Premium Access, Member Front-End Installations must be connected to the EEX network by means of at least two leased lines, while, in the case of Combined Access, they must be connected by means of one leased line. EEX decides to which access point a Member Front-end Installation shall be connected.

7.1.4 System reliability

In order to increase failure safety trading participants can combine several connection alternatives for connection to the EEX Network. In the case of Premium Access, Member Front-End Installations can be connected to the EEX Network by means of more than two dedicated lines with the object to improve failure safety.

7.1.5 Number of leased lines

In deviation from the above regulations, the EEX Management Board can set a minimum and maximum number in respect of the leased lines which a trading participant has applied for to have its Member Front-End Installation connected to the EEX system to the extent that such action is necessary for reasons relating to system performance or for other reasons.

7.2 Member Access via the Internet

7.2.1 Responsibility of the trading participants

If a member accesses the system via the internet, the trading participant itself is responsible for the selection of the internet provider as well as for the implementation of the connection to the EEX

Network. EEX does not assume any responsibility for the availability and performance of the aforementioned connection alternatives.

This applies accordingly in case of the use of the EEX TT Screen.

7.2.2 Internet provider

Trading participants are obliged to choose an internet provider which provides, on the part of the participant, a suitable connection to the EEX Network via the internet.

7.2.3 Connection to the EEX Network

If the connection to the EEX Network is made via the internet, EEX will decide to which access point such connection shall be made.

8. Network Parameters for the Connection Alternatives

8.1 Realisation of trading participation

The software for the Member Front-End Installation made available or supplied by EEX and properly installed by the trading participant contains all necessary connections to effect exchange participation.

8.2 Determination of network parameters for leased lines or the internet

EEX specifies Network parameters to ensure the security of the Network and to protect the Member Front-End Installation. In particular, EEX ensures that

- a trading participant's computers which are not components of the Member Front-End Installation may only access the trading system of that particular trading participant and do not reach other computers within the Network of EEX,
- unauthorised access by a Member Front-End Installation to the computers of EEX is not possible,
- communication between various trading participants by means of the Network of EEX is not possible.

8.3 Compliance with the network parameters

Upon installation of the Member Front-End systems and Network components, the trading participant shall set the network parameters specified by EEX for the respective connection alternative.

8.4 Reservation of network areas

EEX reserves network areas for its Logical Network. The network areas selected by EEX must be used for participation in EEX. Within its own Network, each trading participant may use any network areas that are not reserved for EEX.

8.5 Node numbers/Node names

EEX shall assign node numbers and node names for the entire Logical Network. Within the Network of EEX, only the nodes authorised by EEX by assignment of node numbers may communicate with the EEX trading system of EEX.

Consequently, no computer that has not received a corresponding node number from EEX may be connected by the trading participants in the Network areas reserved by EEX. The transfer of the assigned node number and the related node name to a computer with a function other than that as applied for is not permitted.

9. Emergency Plans

9.1 Responsibility

Each trading participant is responsible for taking appropriate measures for emergency planning and management.

9.2 Emergency computer centre

The establishment of an inactive emergency computer centre (computer back-up centre) and, if necessary, its connection to an access point via a leased line are optional for the trading participants. In such case, the costs incurred by EEX shall be charged to the trading participant.

9.3 Connection of two locations

If a trading participant has two or more locations, it may equip any two locations with a connection in order to ensure breakdown protection in the event of a disruption of the connection between one location and an access point.

10. Staff

Each trading participant is obligated to maintain a sufficient number of qualified personnel at all times during the exchange trading and clearing hours and to guarantee the availability by telephone in order to ensure the orderly operation of the components of the EDP system of EEX which are in the control of the exchange participant, particularly, in order to be able to take the necessary measures at the instruction of EEX in the event of a technical disruption. In addition, EEX must be provided with the name of a person to be contacted in the event of a technical disruption or with proof of a service agreement with a third party.

11. Costs

11.1 Hard- and software

The costs for the purchase, installation and maintenance of all hardware and software used by it shall be borne by the trading participant. The application software referred to in sec. 5 para. 1 shall be made available by EEX at no additional cost.

11.2 Internet

The internet is not a component of the Network of the electronic trading system. The trading participant itself is responsible for the selection of the internet provider as well as for the implementation of the connection. Correspondingly, the trading participant's costs arising for the internet shall be borne by the trading participant.

11.3 Costs of EEX

In accordance with the ~~price-list~~ of Services and Prices of EEX AG in its respectively valid version, EEX AG shall charge fees for the one-off and running costs for the establishment and operation of the telecommunications network of EEX, in particular, the expenses for the provision of the connection alternative selected by the respective trading participant concerned as per subsection 2.3.

12. Technical Problems

12.1 Measures

In the case of technical problems, the EEX Management Board may suspend or restrict access to the EDP system for one, several or all trading participants regardless of whether such problems appear at EEX or at one, several or all trading participants. The EEX Management Board may resume or recommence trading after an interruption even if one or several trading participants still do not have access to the EEX system if, in the opinion of the Board of Management of EEX, an orderly market continues to exist or is possible again.

12.2 Information for the trading participants/Obligation of the trading participants to co-operate

Trading participants are obligated to inform themselves of technical requirements and changes by means of the media made available by EEX. EEX shall, to the extent possible, inform the trading participants of any technical problems without undue delay. In case of technical problems of the EEX system, trading participants are obligated to grant access to their locations in which Member Front-End Systems are installed to EEX or third parties commissioned by EEX for problem resolution.

12.3 Suspension of derivatives trading

In the event of the suspension of trading on the basis of technical problems, EEX shall place the exchange system on “halt” status so that no more inputs can be effected by the trading participants in the system.

The resumption of trading after a trading suspension pursuant to the foregoing regulation shall begin with a new Pre-trading period. Subsequently, trading will proceed in line with the general provisions of the Trading Conditions.

EEX shall inform the trading participants of the further schedule for the trading period without delay.

12.4 Alternative trading and clearing forms

In the event that the EEX trading system is non-functional for a longer period of time, the EEX Management Board shall declare a technical emergency and shall, if necessary, determine alternative trading and clearing methods. Only in case of intentional misconduct or gross negligence shall EEX be liable for damage caused to a trading participant upon using alternative trading methods, particularly, for cases of damage due to an erroneous entry and/or processing of data effected by EEX or European Commodity Clearing AG (ECC) on behalf of trading participants when using alternative trading methods provided the damage results from a culpable infringement by EEX or ECC of fundamental duties incumbent on them/it when applying alternative trading and clearing methods. In such case, the liability of EEX or ECC in cases of ordinary negligence shall be limited to the amount of damage typical of such contract with regard to the provision of alternative forms of trading and clearing.

12.5 “Trading on Behalf”

In the event of the default of the participant trading system or of other EDP systems of the trading participants, EEX can effect entering of data into the electronic trading system for such trading participant on its behalf. In this case, EEX will check the legitimation for entering data with the help of the active user code communicated to it. Section 14 shall apply accordingly with regard to the liability of EEX.

12.6 Information rights

EEX may require the exchange participants to provide information and submit documents if such measure is necessary in order to prevent or solve technical problems.

13. Liability

13.1 Force majeure

EEX is not liable for cases of damage caused by a disruption in its services as a result of any force majeure, riot, and events resulting from war or natural disasters, or resulting from other circumstances beyond the control of EEX (e.g. strikes, lock-outs, interruption of transport or orders of domestic or foreign governments).

13.2 General liability

With regard to cases of damage suffered by a trading participant in connection with its use of trading systems of EEX or the use of the connecting software or interfaces of EEX to its trading systems or the use of EDP devices of EEX (e.g. tokens), EEX shall only be liable to the extent that intentional misconduct or gross negligence of its bodies or third parties assisting in its performance can be proven unless such damage resulted from a culpable breach of its principal duties by EEX. In such case, the liability of EEX for cases of ordinary liability shall be limited to the amount of damage typically foreseeable upon the conclusion of the contract.

Apart from this, EEX shall not be liable for the completeness, availability and recentness of data which are transmitted to the trading participants on the basis of the chosen connection alternative via internet.

Beyond its scope of responsibility there is no liability of EEX on principle. EEX shall only be liable for cases of damage arising from an event originating from the sphere (hardware or third-party software) of a trading participant in as far as evidence of a culpable violation of essential obligations towards the respective trading participant on the part of its bodies or vicarious agents can be furnished.

13.3 Liability in connection with the Trayport® Trading GatewaySM and the Trayport® GlobalVision PortalSM Translator

EEX shall not be liable for Trayport® technical facilities and systems (hard- and software) which lie outside the logical network of EEX unless the trading participant is connected by means of the installation of the EEX GlobalVisionSM screen. In these cases, liability shall be based on sub-section 14.2.

EEX does not accept any liability for cases of damage which a trading participant sustains as a result of technical problems or of a partial or full non-usability of the Trayport® Trading GatewaySM and Trayport® GlobalVision PortalSM Translator or of the EDP devices used by it or in the event of disruptions of the data transfer.

The installation, set-up and configuration (such as e.g. product mapping) of the Trayport® Trading GatewaySM and Trayport® GlobalVision PortalSM Translator are carried out by each trading participant itself and at its own risk and under its own responsibility.

If an employee of EEX AG implements configuration settings on the participant's front-end or on components connected with it at the express wish of the trading participants concerned, any liability on the part of EEX shall be excluded. The trading participant shall, in particular, test the configuration

settings sufficiently before commissioning. In the event of physical injury, this shall only apply in as far as evidence of intent or gross negligence of its bodies or vicarious agents can be furnished unless the damage results from a culpable breach of principal duties by EEX.

13.4 Liability in connection with EEX TT Screen

If the trading participant uses the EEX TT screen to connect to the trading systems of EEX, EEX is exclusively responsible for the correct configuration of the EEX TT screen. EEX is neither liable for the availability or performance of the EEX TT screen in its standard configuration nor for the availability or performance of additionally configured functionalities of the EEX TT screen such as TT FIX API and TT REST API.~~EEX is not responsible for technical systems (hard and software) of Trading Technologies with the exception of the EEX TT Screen. The EEX's liability in relation for the~~ EEX TT screen is governed~~ruled~~ by the EULA, which is concluded~~agreed~~ between the trading participant or the respective user, ~~respectively,~~ and EEX AG.

13.5 Commissioning of third parties

EEX may in full or in part delegate the performance of the obligations assigned to it to third parties when it deems such delegation justified taking into account the purposes of these Implementation Regulations. Should EEX so delegate its duties, its liability shall be limited to the careful selection and instruction of the third parties retained by it. EEX, however, shall at the request of the trading participant, transfer to such trading participant any existing claims against third parties retained by EEX.

13.6 Third-party data and information

EEX shall not be liable for the accuracy, completeness, availability and up-to-date nature of the prices of underlying and other data it obtains from third parties.