

Powernext® Organized Trading Facility

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Market Notices

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ORGANISED TRADING FACILITY-2018-02	21/12/2017	03/01/2018	Powernext® Organised Trading Facility / Market Notices
ORGANISED TRADING FACILITY-2018-11	11/05/2018	16/05/2018	Powernext® Organised Trading Facility / Contracts and spreads between contracts' specifications (Upcoming changes due to the merger PEG NORD/TRS; changes in maturities)
ORGANISED TRADING FACILITY-2018-12	11/05/2018	16/05/2018	Powernext® Organised Trading Facility / Fees, Charges, Invoice, VAT (Modification of trading fees calculation)
ORGANISED TRADING FACILITY-2018-19	24/09/2018	28/09/2018	Powernext® Organised Trading Facility / Off-Order Book Interest Registration (Trade Registration) Systems (Change of name of Equias for Equias)
ORGANISED TRADING FACILITY-2018-20	24/09/2018	28/09/2018	Powernext® Organised Trading Facility / Contracts and spreads between contracts' specifications (French Zone merger)
ORGANISED TRADING FACILITY-2018-21	24/09/2018	28/09/2018	Powernext® Organised Trading Facility / Fees, Charges, Invoice, VAT French Zone merger)
ORGANISED TRADING FACILITY-2018-22	24/09/2018	28/09/2018	Powernext® Organised Trading Facility / Parameters and technical provisions (French Zone merger)
ORGANISED TRADING FACILITY-2018-23	24/09/2018	28/09/2018	Powernext® Organised Trading Facility / Closing Price Methodology (French Zone merger)
ORGANISED TRADING FACILITY-2018-24	24/09/2018	28/09/2018	Powernext® Organised Trading Facility / Trading hours, business days and trading calendars (French Zone merger)
ORGANISED TRADING FACILITY-2019-03	31/01/2019	01/01/2019	Powernext® Organised Trading Facility / Trading hours, business days and trading calendars

POWERNEXT® Organised Trading Facility NOTICES

APPLICATION DOCUMENTS

Pursuant to Article 1.2.2.1.5 and 1.2.2.1.6 of the Market Rules of the Powernext® Organised Trading Facility, Applicants must provide the following documents in order to be admitted on Powernext® Organised Trading Facility:

- the Know Your Customer (KYC) form, including direct and indirect shareholders and a description of the technical and human resources to be allocated to trading on Powernext® Organised Trading Facility;
- identification form including information about the Applicant (registered office address and VAT number);
- a list of the senior managers and other representatives with the power to sign all of the documents relating to market operations and contracts (authorised signatures);
- a copy of the annual report, company registration, articles of association and the senior managers' powers, prepared in accordance with the legislation of the Applicant's home country.

1. SPECIFICATION FOR MEMBERS TRADING IN FINANCIAL INSTRUMENTS:

- Additionnaly to the aforementioned documents, MiFID II regulation form including all the requirements for members trading in financial instruments, including but not limited to Direct Electronic Access, the use of Algorithmic trading, the Conformance testing and Pre-Trade controls in place. According to Commission Delegated Regulation (EU) 2017/584 a yearly risk-based assessment of the admitted members' compliance will be conducted.

PRICE COMMITTEE

Pursuant to Article 1.6.5 of the Market Rules of the Powernext® Organised Trading Facility, Powernext SAS hereby publishes the procedures for designating members of the Price Committee and the functioning of the Price Committee:

- Any Member may be contacted by Powernext SAS to participate to a Price Committee, in order to provide either price or bid ask spread.
- Except under exceptional circumstances, at least three Members are contacted by phone, or by any other mean, and at least two answers from Members are necessary for the Price Committee to be valid.
- Powernext SAS carries out the average of the price information provided by the Price Committee and reserves the right to exclude the highest and lowest prices given.

Price Committees can be organized, inter alia, in the following circumstances:

- Determination of the Price References as defined in the Market Notice Closing Price Methodology;
- Determination of the Price References in case of Transaction cancellation.

RULES OF CONDUCT - DEFINITIONS

Pursuant to Article 1.2.3.1 of the Market Rules of the Powernext® OTF, Powernext SAS hereby publishes the definitions of the terms « attempted market manipulation», « market manipulation » and « inside information ».

« Attempted market manipulation » means

(i) entering into any Transaction, issuing any Order to trade or taking any other action relating to a Contract with the intention of:

- giving false or misleading signals as to the supply of, demand for, or price of Contracts;
- securing the price of one or several Contracts at an artificial level, unless the person who entered into the Transaction or issued the Order to trade establishes that his reasons for doing so are legitimate and that that Transaction or Order to trade conforms to accepted market practices on Powernext® Organised Trading Facility; or
- employing a fictitious device or any other form of deception or contrivance which gives, or is likely to give, false or misleading signals regarding the supply of, demand for, or price of Contracts ;

or

(ii) disseminating information through the media, including the internet, or by any other means with the intention of giving false or misleading signals as to the supply of, demand for, or price of Contracts.

« market manipulation » means

(i) entering into any Transaction or issuing any Order to trade a Contract which:

- gives, or is likely to give, false or misleading signals as to the supply of, demand for, or price of Contracts;
- secures or attempts to secure, by a person, or persons acting in collaboration, the price of one or several Contracts at an artificial level, unless the person who entered into the Transaction or issued the Order to trade establishes that his reasons for doing so are legitimate and that that Transaction or Order to trade conforms to accepted market practices on Powernext® Organised Trading Facility; or
- employs or attempts to employ a fictitious device or any other form of deception or contrivance which gives, or is likely to give, false or misleading signals regarding the supply of, demand for, or price of Contracts ;

or

(ii) disseminating information through the media, including the internet, or by any other means, which gives, or is likely to give, false or misleading signals as to the supply of, demand for, or price of Contracts, including the dissemination of rumours and false or misleading news, where the disseminating person knew, or ought to have known, that the information was false or misleading.

« Inside information » means information of a precise nature which has not been made public, which relates, directly or indirectly, to one or more Contracts and which, if it were made public, would be likely to significantly affect the prices of those Contracts.

OFF-ORDER BOOK INTEREST REGISTRATION (TRADE REGISTRATION) SYSTEMS

POWERNEXT® Organised Trading Facility / PEGAS OTF Notice n° OTF-2018-19 28/09/2018

Pursuant to Article 1.2.2.2 and 1.5.2.3 of the Market Rules of the Powernext® Organised Trading Facility, Powernext SAS hereby describes:

- the Off-Order Book Interests Registration Systems available on Powernext® Organised Trading Facility;
- the conditions for accessing these Systems;
- the conditions of validation of those Off-Order Book Interests.

1. OFF-ORDER BOOK INTERESTS REGISTRATION SYSTEMS AVAILABLE ON POWERNEXT® ORGANISED TRADING FACILITY

Powernext SAS makes available to Members and Authorized Registering Brokers the following Off-order Book Interests Registration Systems:

- Systems under the responsibility of Powernext SAS:
 - PEGAS OTC web
- Systems under the responsibility of a third party software provider:
 - EUREX Clearing (Trade Entry Service)
 - Trayport « Clearing Link » ;
 - Equias « eXRP ».

These Systems are made available on:

- PEGAS OTF

Authorized Registering Brokers must indicate to Powernext SAS which Off-order Book Interests Registration System(s) they wish to use.

2. CONDITIONS FOR ACCESSING OFF-ORDER BOOK INTERESTS REGISTRATION SYSTEMS

2.1 For PEGAS OTC Web

Powernext SAS provides Members and Authorized Registering Brokers with an identifier and a password in order to allow connection and identification on PEGAS OTC Web, input of the Off-Order Book Interests to be registered and counterparties to those Interests, and the display of the status of operations.

2.2 For EUREX Clearing (Trade Entry Service)

Powernext SAS provides Members under request with an identifier and a password in order to allow connection and identification on EUREX Clearing, input of Off-Order Book Interests and counterparties to those Interests and display of the status of operations.

2.3 For Trayport « Clearing Link » and Equias « eXRP »

Powernext SAS also makes available to its Members Registration of Off-Order Book Interests through external automatised and integrated solutions, connected to the order matching internal systems of their Registering Brokers (or « Straight Through Process »): « Clearing Link » and « eXRP ».

In order to be able to use these Systems (« Clearing Link » and « eXRP »), Registering Brokers must have signed a specific agreement with the Clearing House.

If using Trayport “Clearing Link” and/or Equias “eXRP” Registering Systems, Registering Brokers guarantee towards Powernext that :

- they have obtained authorisation from their respective clients, which are Members of Powernext OTF, with regard to the use of the Systems and that all data linked to Off-Order Book Interests routed via these Systems to ECC are based on a valid agreement between the Registering Broker and its respective clients;
- they provide ECC on behalf of Powernext with a continuously updated list in a format determined by ECC containing the Powernext Members with whom the Registering Broker concluded a before mentioned agreement (“white list”);

- through their internal organisation they ensure that Off-Order Book Interests are only registered in the name of such Powernext OTF Members with whom they have concluded a before mentioned agreement and that every entry by the Registering Brokers into these Systems is carried out in accordance with this agreement;
- by the before mentioned agreement the liability risk for erroneous registrations on Powernext OTF caused by the Brokers are allotted entirely to them;
- the process of order matching within the internal system of the Registering Brokers cannot be manipulated and – to ensure correct submission of Off-Order Book Interests, trade details, and trade processing flags – any component, especially but not limited to the broker's internal trading system, back-office system, utilised Registration Systems and other software solutions, involved in submission of trade details, the setting of trade processing flags, capturing and submitting trades into the registration of Off-Order Book Interests process, have been sufficiently tested and that due diligence is followed in development, change management, and operations of said components.

If using Trayport "Clearing Link" and/or Equias "eXRP" Registering Systems, Registering Brokers and Members agree that the use of those Registration Systems is effected at their own risk and the System Providers of "Clearing Link" and "eXRP" are responsible for the operability and functionalities of these Systems. Consequently, Powernext and ECC do not assume any responsibility and liability for failure of functionalities of these Systems and the correctness, completeness and validity of the transactions and declarations transmitted via these Systems. Powernext and ECC disclaim any warranties with respect to the performance of or in connection to these Systems, the availability of back-office capabilities or any services performed by these System's Providers.

3. CONDITIONS OF VALIDATION OF OFF-ORDER BOOK INTERESTS

3.1 On PEGAS OTC Web

An Off-Order Book Interest registered on PEGAS OTC Web gives rise to a Transaction if it is validated by the two Members involved before the time given in a Market Notice. If the two Members have not validated the Off-Order Book Interest before the time given in this Market Notice, this off-order Book Interest will not be taken into account.

3.2 On EUREX Clearing (Trade Entry Service)

Conditions of validation are defined in a technical documentation made available by ECC to the Members.

3.3 On Trayport « Clearing Link » and Equias « eXRP »

An Off-Order Book Interest registered on Powernext OTC Web gives rise to a Transaction if it is validated by the two Members involved before the time given in a Market Notice. This validation can be automated on « Clearing Link » and Equias « eXRP ». If the two Members have not validated the Off-Order Book Interest before the time given in this Market Notice, this off-order Book Interest will not be taken into account.

4. OPTIONAL CONDITIONS OF VALIDATION OF OFF-ORDER BOOK INTERESTS

4.1 Trayport « Clearing Link » : OTC Straigh Through Process Pre-trading Limits

The monitoring of pre-trading limits is now proposed by ECC and Powernext on OTC STP. The technical set-up and computation of the monetary limits are described in ECC's Risk Management Manual. The operation and maintenance of this technical solution is ensured by ECC.

4.2 Pre-conditions for the use of trading limits

The use and amount of trading limits must be agreed between the Clearing Member and Non-Clearing Member. As part of the Clearing and Non-Clearing Member agreement, pre-trading limits would be a pre-condition for the Member to register the trade. As a consequence, the Member should respect its trading limits even in case of system's failure.

5. CANCELLATION OF OFF-ORDER BOOK INTERESTS

If using "OTC Web", "Eurex Clearing", Trayport "Clearing Link" and/or Equias "eXRP" Registering Systems, Registering Brokers and Members have to check the correctness of Registrations on PEGAS OTF triggered via those Registration Systems and the subsequent submissions to ECC for clearing forthwith, however, not later than until the end of the trading session and to inform Powernext immediately in case of any discrepancies.

The cancellation of an Off-Order Book Interest is invoiced in conformity with Article 3 of the Market Notice "Fees, Charges, Invoices, VAT" for cancellation of Transactions.

PEGAS OTF MARKET NOTICES

CONTRACTS AND SPREADS BETWEEN CONTRACTS' SPECIFICATIONS

POWERNEXT® Organised Trading Facility / PEGAS OTF Notice n° OTF-2018-20 28/09/2018

Pursuant to articles 1.1.1, 1.3.2.2 and 2.1.1 of the Market Rules of the Powernext® Organised Trading Facility, Powernext SAS hereby publishes the specifications of Contracts for Contracts traded on PEGAS OTF.

As indicated in Organised Trading Facility Market Rules, all Members willing to trade on a non-financial instrument with compulsory physical fulfilment shall sign a balancing agreement with the corresponding Delivery Organizations.

1. Tradable contracts on the French delivery areas

Segment	PEGAS OTF
Name of the Contracts	PEGAS OTF Futures PEG
Delivery	PEG (GRTgaz et Teréga)
Type of Instrument	Non Financial Instrument
Eligible Contracts	<ul style="list-style-type: none"> ▪ the next 6 Months ▪ the next 7 Quarters ▪ the next 6 Seasons ▪ the next 6 Calendar years
Underlying	High calorific natural gas (H-gas quality) at the conditions of the TSO of the concerned delivery area
Contract Volumes units	MWh/day
Contract volume	1 MWh/day
Minimum lot size	1 contract (i.e. Min Volume = 1 MWh/day)
Volume tick	1 contract (i.e. Volume Tick = 1 MWh/day)
Price unit	€/MWh, 3 decimal digits
Price tick	0.005 €/MWh for Orders in the Order Book 0.001 €/MWh for Off-Order Book Interests
Total Contract Volume	= Number of contracts x Contract volume (1 MWh/day) x Number of delivery days of the Contract
Delivery	All contracts lead to compulsory physical deliveries on the specified virtual point of the gas transport network. Delivery occurs each calendar day of the delivery period for the contract under consideration. For a given day D of the delivery period, the delivery goes from 06:00 a.m. CET of day D to 06:00 a.m. CET of day D+1.

2. Tradable contracts on the Dutch delivery area

Segment	PEGAS OTF
Name of the Contracts	PEGAS OTF Futures TTF
Delivery	TTF (Gasunie Transport Services)
Type of Instrument	Non Financial Instrument
Eligible Contracts	<ul style="list-style-type: none"> ▪ the next 6 Months* ▪ the next 11 Quarters ▪ the next 6 Seasons ▪ the next 6 Calendar years
Underlying	Natural gas at the conditions of the TSO of the concerned delivery area
Contract Volumes units	MW
Contract volume	1 MW
Minimum lot size	1 contract (i.e. Min Volume = 1 MW)
Volume tick	1 contract (i.e. Volume Tick = 1 MW)
Price unit	€/MWh, 3 decimal digits
Price tick	0.005 €/MWh for Orders in the Order Book 0.001 €/MWh for Off-Order Book Interests

Total Contract Volume	= Number of contracts x Contract volume (1 MW) x Number of delivery hours of the Contract (taking into account summer/winter time-shift)
Delivery	All contracts lead to compulsory physical deliveries on the specified virtual point of the gas transport network. Delivery occurs each calendar day of the delivery period for the contract under consideration. For a given day D of the delivery period, the delivery goes from 06:00 a.m. CET of day D to 06:00 a.m. CET of day D+1.

* All transactions that would be entered on Contract that are not listed in the Market Notices will be cancelled by Powernext.
Example: A transaction on M+8 would be cancelled.

3. Tradable contracts on the German delivery areas

Segment	PEGAS OTF	
Name of the Contracts	PEGAS OTF Futures NCG	PEGAS OTF Futures GASPOOL
Delivery	NCG (NetConnect Germany)	GASPOOL (GASPOOL Balancing Services)
Type of Instrument	Non Financial Instrument	Non Financial Instrument
Eligible Contracts	<ul style="list-style-type: none"> ▪ the next 6 Months ▪ the next 7 Quarters ▪ the next 6 Seasons ▪ the next 6 Calendar years 	<ul style="list-style-type: none"> ▪ the next 6 Months ▪ the next 7 Quarters ▪ the next 6 Seasons ▪ the next 6 Calendar years
Underlying	High calorific natural gas (H-Gas quality) at the conditions of the Market Area Manager of the concerned market area	
Contract Volumes units	MW	
Contract volume	1 MW	
Minimum lot size	1 contract (i.e. Min Volume = 1 MW)	
Volume tick	1 contract (i.e. Volume Tick = 1 MW)	
Price unit	€/MWh, 3 decimal digits	
Price tick	0.005 €/MWh for Orders in the Order Book 0.001 €/MWh for Off-Order Book Interests	
Total Contract Volume	= Number of contracts x Contract volume (1 MW) x Number of delivery hours of the Contract (taking into account summer/winter time-shift)	
Delivery	<p>All contracts lead to compulsory deliveries on the specified virtual point of the market area. Delivery occurs each calendar day of the delivery period for the contract under consideration.</p> <p>For a given day D of the delivery period, the delivery goes from 06:00 a.m. CET of day D to 06:00 a.m. CET of day D+1.</p>	

4. Tradable contracts on the Belgian delivery area

Segment	PEGAS OTF
Name of the Contracts	PEGAS OTF Futures ZTP
Delivery	ZTP (Fluxys)
Type of Instrument	Financial Instrument
Eligible Contracts	<ul style="list-style-type: none"> ▪ the next 6 Months ▪ the next 7 Quarters ▪ the next 6 Seasons ▪ the next 6 Calendar years
Underlying	Natural gas at the conditions of the TSO of the concerned delivery area
Contract Volumes units	MW
Contract volume	1 MW
Minimum lot size	1 contract (i.e. Min Volume = 1 MW)
Volume tick	1 contract (i.e. Volume Tick = 1 MW)
Price unit	€/MWh, 3 decimal digits
Price tick	0.005 €/MWh for Orders in the Order Book 0.001 €/MWh for Off-Order Book Interests
Total Contract Volume	= Number of contracts x Contract volume (1 MW) x Number of delivery hours of the Contract (taking into account summer/winter time-shift)
Delivery	<p>All contracts can lead to physical deliveries on the specified virtual point of the gas transport network.</p> <p>Delivery occurs each calendar day of the delivery period for the contract under consideration. For a given day D of the delivery period, the delivery goes from 06:00 a.m. CET of day D to 06:00 a.m. CET of day D+1.</p> <p>Close-out agreements can be concluded with the Clearing House enabling the member not to enter into physical delivery.</p>

Segment	PEGAS OTF
Name of the Contracts	PEGAS OTF Futures ZEE
Delivery	ZEE (Fluxys)
Type of Instrument	Financial Instrument
Eligible Contracts	<ul style="list-style-type: none"> ▪ the next 6 Months ▪ the next 7 Quarters ▪ the next 6 Seasons ▪ the next 6 Calendar years
Underlying	Natural gas at the conditions of the TSO of the concerned delivery area
Contract Volumes units	Kilotherms per day (Kth/d) (1 therm = 29.3071 kilowatt hours)
Contract volume	1 kth/d or 1,000 therms/day
Minimum lot size	1 contract (i.e. Min Volume = 1,000 therms/day)
Volume tick	1 contract (i.e. Min Volume = 1,000 therms/day)
Price unit	GBP pence per therm (p/th), 3 decimal digits
Price tick	GBP 0.005 p/th for Orders in the Order Book GBP 0.001 p/th for Off-Order Book Interests
Total Contract Volume	= Number of contracts x Contract volume (1,000 therms/day) x Number of delivery days of the Contract
Delivery	<p>All contracts can lead to physical deliveries on the specified physical point of the gas transport network.</p> <p>Delivery occurs each calendar day of the delivery period for the contract under consideration. For a given day D of the delivery period, the delivery goes from 06:00 a.m. CET of day D to 06:00 a.m. CET of day D+1.</p> <p>Close-out agreements can be concluded with the Clearing House enabling the member not to enter into physical delivery.</p>

5. Tradable contracts on the British delivery area

Segment	PEGAS OTF
Name of the Contracts	PEGAS OTF Futures NBP
Delivery	NBP (National Grid)
Type of Instrument	Non Financial Instrument
Eligible Contracts	<ul style="list-style-type: none"> ▪ the next 6 Months* ▪ the next 7 Quarters ▪ the next 6 Seasons ▪ the next 6 Calendar years
Underlying	Natural gas at the conditions of the TSO of the concerned delivery area
Contract Volumes units	Kiloterms per day (Kth/d) (1 therm = 29.3071 kilowatt hours)
Contract volume	1 kth/d or 1,000 therms/day
Minimum lot size	1 contract (i.e. Min Volume = 1,000 therms/day)
Volume tick	1 contract (i.e. Min Volume = 1,000 therms/day)
Price unit	GBP pence per therm (p/th), 3 decimal digits
Price tick	GBP 0.005 p/th for Orders in the Order Book GBP 0.001 p/th for Off-Order Book Interests
Total Contract Volume	= Number of contracts x Contract volume (1,000 therms/day) x Number of delivery days of the Contract
Delivery	All contracts lead to compulsory physical deliveries on the specified virtual point of the gas transport network. Delivery occurs each calendar day of the delivery period for the contract under consideration. For a given day D of the delivery period, the delivery goes from 06:00 a.m. CET of day D to 06:00 a.m. CET of day D+1.

* All transactions that would be entered on Contracts that are not listed in the Market Notices will be cancelled by Powernext.
Example: A transaction on M+8 would be cancelled.

6. Tradable contracts on the Italian delivery area

Segment	PEGAS OTF
Name of the Contracts	PEGAS OTF Futures PSV
Delivery	PSV (Punto di Scambio Virtuale)
Type of Instrument	Non Financial Instrument
Eligible Contracts	<ul style="list-style-type: none"> ▪ the next 6 Months ▪ the next 7 Quarters ▪ the next 6 Seasons ▪ the next 6 Calendar years
Underlying	Natural gas at the conditions of the TSO of the concerned delivery area
Contract Volumes units	MW
Contract volume	1 MW
Minimum lot size	1 contract (i.e. Min Volume = 1 MW)
Volume tick	1 contract (i.e. Volume Tick = 1 MW)
Price unit	€/MWh, 3 decimal digits
Price tick	0.005 €/MWh for Orders in the Order Book 0.001 €/MWh for Off-Order Book Interests
Total Contract Volume	= Number of contracts x Contract volume (1 MW) x Number of delivery hours of the Contract x24 (in daily flat, i.e. not taking into account summer/winter time-shift)
Delivery	<p>All contracts lead to compulsory physical deliveries on the specified virtual point of the gas transport network.</p> <p>Delivery occurs each calendar day of the delivery period for the contract under consideration.</p> <p>For a given day D of the delivery period, the delivery goes from 06:00 a.m. CET of day D to 06:00 a.m. CET of day D+1 (and is supposed to be 24h every day of the year).</p>

7. Tradable contracts on the Danish delivery area

Segment	PEGAS OTF
Name of the Contracts	PEGAS OTF Futures ETF
Delivery	ETF (Energinet.dk)
Type of Instrument	Non Financial Instrument
Eligible Contracts	<ul style="list-style-type: none"> • the next 6 Months • the next 7 Quarters • the next 6 Seasons • the next 6 Calendar years
Underlying	Natural gas at the conditions of the TSO of the concerned delivery area
Contract Volumes units	MW
Contract volume	1 MW
Minimum lot size	1 contract (i.e. Min Volume = 1 MW)
Volume tick	1 contract (i.e. Volume Tick = 1 MW)
Price unit	€/MWh, 3 decimal digits
Price tick	0.005 €/MWh for Orders in the Order Book 0.001 €/MWh for Off-Order Book Interests
Total Contract Volume	= Number of contracts x Contract volume (1 MW) x Number of delivery hours of the Contract (taking into account summer/winter time-shift)
Delivery	All contracts lead to compulsory physical deliveries on the specified virtual point of the gas transport network. Delivery occurs each calendar day of the delivery period for the contract under consideration. For a given day D of the delivery period, the delivery goes from 06:00 a.m. CET of day D to 06:00 a.m. CET of day D+1.

8. Tradable contracts on the Austrian delivery area

Segment	PEGAS OTF
Name of the Contracts	PEGAS OTF Futures CEGH VTP
Delivery	CEGH VTP (Central European Gas Hub AG)
Type of Instrument	Non Financial Instrument
Eligible Contracts	<ul style="list-style-type: none"> ▪ the next 6 Months ▪ the next 7 Quarters ▪ the next 6 Seasons ▪ the next 6 Calendar years
Underlying	Natural gas at the conditions of the TSO of the concerned delivery area
Contract Volumes units	MW
Contract volume	1 MW
Minimum lot size	1 contract (i.e. Min Volume = 1 MW)
Volume tick	1 contract (i.e. Volume Tick = 1 MW)
Price unit	€/MWh, 3 decimal digits
Price tick	0.005 €/MWh for Orders in the Order Book 0.001 €/MWh for Off-Order Book Interests
Total Contract Volume	= Number of contracts x Contract volume (1 MW) x Number of delivery hours of the Contract (taking into account summer/winter time-shift)
Delivery	<p>All contracts lead to compulsory physical deliveries on the specified virtual point of the gas transport network.</p> <p>Delivery occurs each calendar day of the delivery period for the contract under consideration.</p> <p>For a given day D of the delivery period, the delivery goes from 06:00 a.m. CET of day D to 06:00 a.m. CET of day D+1.</p>

9. Spread on Tradable Contracts

Powernext offers the possibility to trade the Spread between some of the Contracts listed on its Market Segments. Trading these spreads result in buying (respectively selling) the first Underlying Contract and selling (respectively buying) the second Underlying Contract.

Spreads between Contracts of different delivery areas are as follows and are tradable on the following maturities:

PEGAS OTF Futures PEG / PEGAS OTF Futures TTF	<ul style="list-style-type: none"> ▪ the next 6 Months ▪ the next 7 Quarters ▪ the next 6 Seasons ▪ the next 6 Calendar years
PEGAS OTF Futures PEG / PEGAS OTF Futures ZTP	<ul style="list-style-type: none"> ▪ the next 6 Months ▪ the next 7 Quarters ▪ the next 6 Seasons ▪ the next 6 Calendar years
PEGAS OTF Futures PEG / PEGAS OTF Futures NCG	<ul style="list-style-type: none"> ▪ the next 6 Months ▪ the next 7 Quarters ▪ the next 6 Seasons ▪ the next 6 Calendar years
PEGAS OTF Futures GASPOOL / PEGAS OTF Futures NCG	<ul style="list-style-type: none"> ▪ the next 6 Months ▪ the next 7 Quarters ▪ the next 6 Seasons ▪ the next 6 Calendar years
PEGAS OTF Futures NCG / PEGAS OTF Futures TTF	<ul style="list-style-type: none"> ▪ the next 6 Months ▪ the next 7 Quarters ▪ the next 6 Seasons ▪ the next 6 Calendar years
PEGAS OTF Futures GASPOOL / PEGAS OTF Futures TTF	<ul style="list-style-type: none"> ▪ the next 6 Months ▪ the next 7 Quarters ▪ the next 6 Seasons ▪ the next 6 Calendar years
PEGAS OTF Futures ZTP / PEGAS OTF Futures TTF	<ul style="list-style-type: none"> ▪ the next 6 Months ▪ the next 7 Quarters ▪ the next 6 Seasons ▪ the next 6 Calendar years
PEGAS OTF Futures ZTP / PEGAS OTF Futures NCG	<ul style="list-style-type: none"> ▪ the next 6 Months ▪ the next 7 Quarters ▪ the next 6 Seasons ▪ the next 6 Calendar years
PEGAS OTF Futures ZTP / PEGAS OTF Futures GASPOOL	<ul style="list-style-type: none"> ▪ the next 6 Months ▪ the next 7 Quarters ▪ the next 6 Seasons ▪ the next 6 Calendar years
PEGAS OTF Futures ZEE / PEGAS OTF Futures NBP	<ul style="list-style-type: none"> ▪ the next 6 Months ▪ the next 7 Quarters ▪ the next 6 Seasons ▪ the next 6 Calendar years
PEGAS OTF Futures PSV / PEGAS OTF Futures TTF	<ul style="list-style-type: none"> ▪ the 6 next Months ▪ the 7 next Quarters ▪ the 6 next Seasons ▪ the next 6 Calendar years
PEGAS OTF Futures ETF / PEGAS OTF Futures TTF	<ul style="list-style-type: none"> ▪ the next 6 Months ▪ the next 7 Quarters ▪ the next 6 Seasons ▪ the next 6 Calendar years
PEGAS OTF Futures ETF / PEGAS OTF Futures NCG	<ul style="list-style-type: none"> ▪ the next 6 Months ▪ the next 7 Quarters ▪ the next 6 Seasons ▪ the next 6 Calendar years
PEGAS OTF Futures ETF / PEGAS OTF Futures GASPOOL	<ul style="list-style-type: none"> ▪ the next 6 Months

	<ul style="list-style-type: none"> ▪ the next 7 Quarters ▪ the next 6 Seasons ▪ the next 6 Calendar years
PEGAS OTF Futures CEGH VTP / PEGAS OTF Futures TTF	<ul style="list-style-type: none"> ▪ the 6 next Months ▪ the 7 next Quarters ▪ the 6 next Seasons ▪ the 6 Calendar years
PEGAS OTF Futures CEGH VTP / PEGAS OTF Futures NCG	<ul style="list-style-type: none"> ▪ the 6 next Months ▪ the 7 next Quarters ▪ the 6 next Seasons ▪ the 6 Calendar years
PEGAS OTF Futures CEGH VTP / PEGAS OTF Futures GASPOOL	<ul style="list-style-type: none"> ▪ the 6 next Months ▪ the 7 next Quarters ▪ the 6 next Seasons ▪ the 6 Calendar years
PEGAS OTF Futures PSV / PEGAS OTF Futures CEGH VTP	<ul style="list-style-type: none"> ▪ the 6 next Months ▪ the 7 next Quarters ▪ the 6 next Seasons ▪ the next 6 Calendar years

Spreads between Contracts of same maturity are as follows and are tradable on the following delivery areas:

PEGAS OTF Futures TTF PEGAS OTF Futures NCG PEGAS OTF Futures GASPOOL PEGAS OTF Futures PEG PEGAS OTF Futures PSV PEGAS OTF Futures CEGH VTP PEGAS OTF Futures ETF PEGAS OTF Futures ZTP PEGAS OTF Futures NBP PEGAS OTF Futures ZEE	<ul style="list-style-type: none"> ▪ all the combinations of Spreads between the first 6 Months (M1xM2, M2xM4, M1XM5) ▪ all the combinations of Spreads between the first 6 Quarters (Q1xQ2, Q1xQ3, Q4XQ5) ▪ all the combinations of Spreads between the first 6 Seasons (S1xS2, S2xS4, S1XS5) ▪ all the combinations of Spreads between the first 6 Calendar years (C1xC2, C2xC4, C1XC5)
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FEES, CHARGES, INVOICES, VAT

POWERNEXT® Organised Trading Facility / PEGAS OTF Notice n° OTF-2018-21 28/09/2018

1.1.1.1.1. Annual fees

1- Membership Annual fees

Annual membership fees on PEGAS OTF on the following countries and delivery zones

- **Germany:** NCG, GASPOOL,
- **Belgium:** ZTP, ZEE
- **France :** PEG
- **Italy :** PSV
- **Netherlands :** TTF
- **United Kingdom :** NBP

are determined according to the number of countries included in the Member's subscription,

- | | |
|-----------------------------|------------|
| (1) Up to two countries | EUR 9,000 |
| (2) More than two countries | EUR 15,000 |

For such countries and in case of multiple accesses to PEGAS Spot, PEGAS OTF and PEGAS Regulated Market:

- The total amount of annual membership fees shall be limited to EUR 9,000 for Members who join package (1).
- The total amount of annual membership fees shall be limited to EUR 15,000 for Members who join package (2).

For the subscriptions (1) and (2), the first year of annual membership fees will be free of charge for new members. A member who chooses at first a subscription to up to two countries (1) will be able to change for the first time to a subscription to more than two countries (2) without paying the difference in fees between the two subscriptions for 12 months.

(3) Annual membership fees on PEGAS Market for **Denmark** ETF Delivery Zone are EUR 10,000.

For Denmark and in case of multiple accesses to PEGAS Spot, PEGAS OTF and PEGAS Regulated Market: the total amount of annual membership fees shall be limited to EUR 10,000 for Members who join package (3).

For the subscriptions (3) in 2017, the first year of annual membership fees will be free of charge for new members.

(4) Annual membership fees on PEGAS Market for **Austria** CEGH VTP Delivery Zone are EUR 15,200.

For Austria and in case of multiple accesses PEGAS Spot, PEGAS OTF and PEGAS Regulated Market: the total

amount of annual membership fees shall be limited to EUR 15,200 for Members who join package (4).

2- Annual membership fees for Clearing Members

The Annual membership fees shall be limited to EUR 4,000 for Clearing Member who trade for their own account only if one of their clients defaults. These reduced fees entitle the Clearing Member to a single trading license, which shall be activated solely to manage the position of a defaulting client.

3- Annual technical fees

For traders choosing a Trayport front-end, an annual technical Fee of EUR 1,800 per year shall be invoiced for each user license. License for a downstream account for Trayport Joule Direct users shall be charged EUR 1,800 per year.

4- Invoicing

Both membership and technical annual fees are payable monthly by the Members and invoiced at the end of each calendar month. Membership annual fees are established the first day of each month from the date of trading commencement. Technical annual fees are established at the last day of each month from the date of trading commencement.

Powernext SAS shall issue electronic invoices. These invoices shall be available on an FTP server accessible in SFTP and via an https webpage at the address communicated to the Members. As an exception, invoices for CEGH VTP Membership fees will be sent by email by Central European Gas Hub AG on behalf of Powernext.

Upon express and written demand to Powernext SAS, Members may receive hard copies of the invoices issued to Powernext SAS.

1.1.1.1.2. Trading fees for Market

1- Trading fees

Trading fees for Transactions resulting from the Order Book shall be:

- EUR/MWh 0.005 for PEG and ZTP
- EUR/MWh 0.0025 for NCG, GASPOOL and PSV
- EUR/MWh 0.002 for TTF

- GBP Pence per Therm 0.0007 for ZEE, NBP
- EUR/MWh 0.005 for ETF
- EUR/MWh 0.003 for CEGH VTP

In case of a Transaction on a Spread between Contracts of different delivery areas, only the trading fee on the first underlying Contract is applicable.

In case of a Transaction on a Spread between Contracts of the same maturity, only the trading fee on the second underlying Contract is applicable.

In case of a Transaction on an Implied Order, only the Trading fee of the underlying Contract of the Implied Order executed on screen is applicable.

Trading fees for Transactions resulting from Off-Order Book Interests (Trade Registration) shall be:

- EUR/MWh 0.005 for PEG and ZTP
- EUR/MWh 0.0025 for NCG, GASPOOL and PSV
- EUR/MWh 0.002 for TTF
- GBP Pence per Therm 0.0007 for ZEE and NBP
- EUR/MWh 0.005 for ETF
- EUR/MWh 0.003 for CEGH VTP

Trading fees shall be calculated for each calendar month. They are payable by the Member on the last day of each month. Invoices will be stipulated in EUR.

The relevant trading fees shall be invoiced to the Members of the Powernext® Organised Trading Facility who concluded a trade, or to the Members on whose behalf the trade has been executed or registered.

2- Fees for Trade Cancellation

The fees for cancelling a Transaction are detailed in the table hereunder. These fees shall be charged only to the party requesting the cancellation. If a cancellation concerns multiple Transactions, only the fee applicable to the longest maturity or the most important volume will be applied.

Cancellation fee applicable for contracts quoted in EUR are:

Contract	Cancellation fee (EUR)
Month	1,000
Quarter	1,500
Season	2,000
Calendar	2,500

Cancellation fee applicable for contracts quoted in GBP are:

Contract	Cancellation fee (GBP)
Month	800
Quarter	1,200
Season	1,600
Calendar	2,000

3- Invoicing

The fees mentioned in this article shall be billed monthly and included in the invoices mentioned in Article 1.

Powernext SAS shall issue electronic invoices. These invoices shall be available on an FTP server accessible in SFTP and via an https webpage at the address communicated to the Members. As an exception, invoices for CEGH VTP Membership fees will be sent by email by Central European Gas Hub AG on behalf of Powernext.

Upon express and written demand to Powernext SAS, Members may receive hard copies of the invoices issued to Powernext SAS.

1.1.1.1.3. Value Added Tax on fees

The fees referred to in Articles 1 to 3 of this Appendix assimilated to a provision of services (Article 256 IV of the French Tax Code). The place of supply of such services is where the buyer is established for VAT purposes according to article 259-1 of the French tax code/Article 44 of the directive 2006/112/EC. They are subject to French Value Added Tax at the rate of 20% if the buyer is a French resident or a French establishment of a foreign business. They are not subject to French Value-Added-Tax if the buyer is liable to pay Value-Added Tax in another European Union Member State (in such case Value-Added Tax is due by the buyer in the member state in which the tax is due pursuant to article 196 of the directive 2006/112/EC) or is established outside the European Union. Moreover the buyer acknowledges that VAT should be self-assessed by the buyer pursuant to the tax law applicable in the State where the buyer has its residence. The buyer shall fully hold Powernext harmless in case it did not comply with its tax related obligations towards a State.

1.1.1.1.4. Payment

The fees referred to in Articles 1 to 3 shall be payable on the date of receipt of the electronic copy of the invoice. They shall be collected by ECC the following days and remitted entirely to Powernext SAS.

If the amounts invoiced are not paid in full within the specified deadline, the sums owed are increased, by right, and without the need for a formal notice to pay, of a fixed rate for recovery fees of forty (40) euros (art. L441-3 French Commercial Code) in addition to interests for late payments at a rate equal to three times the legally chargeable interest rate. These penalties are due on the day following the due date mentioned on the invoice.

POSITION AND TRANSACTION REPORTING

ONLY APPLIES TO MEMBERS TRADING IN FINANCIAL INSTRUMENTS

1 Position reporting obligations of Powernext SAS in financial instruments

Directive 2014/65/EU (« MiFID II ») Article 58 paragraph 1 and its national implementation in the "Code Monétaire et Financier" require Powernext SAS to publish weekly and daily reports which contain the positions that Powernext's members hold in commodity derivatives as financial instruments offered at Powernext Organised Trading Facility for trading.

Paragraph 3 of the same article requires Members of Powernext Organised Trading Facility to provide the required information regarding the details of their own position and of positions held by their clients and the clients of their clients until the end client is reached to Powernext SAS.

Powernext SAS has delegated the reporting of positions to its sole shareholder European Energy Exchange AG (EEX). The reporting solution foresees to use existing static member data and existing position data that is retrieved from the clearing house ECC in order to create a draft position report for all position reports that Powernext needs to submit. Members therefore do not need to provide Powernext with all the information as described in Paragraph 3 of Article 58 of Directive 2014/65/EU, but only such information that is not contained in the draft position report. In addition, members are required to verify the correctness of the information within the draft position report.

2 Transaction reporting obligation of Powernext SAS in financial instruments

Article 26 of Regulation (EU) 600/2014 ("MiFIR") requires Powernext SAS to report details of transactions in financial instruments entered into by firms which are not authorized as an investment firm. In order to be able to correctly report the details of such transactions, Powernext SAS requires Members to contribute to these reports of transactions.

3 Delegation of Position Reporting and Transaction Reporting to European Energy Exchange AG in financial instruments

Powernext SAS has delegated the reporting of positions and transactions to its sole shareholder European Energy Exchange AG (EEX). The reporting solution foresees to use existing static member data and existing position and transaction data that is available to Powernext or retrieved from the clearing house ECC in order to create a draft position report for all position reports and a draft transaction report for all position and transaction reports that Powernext SAS has to submit. Members therefore do not need to provide Powernext SAS with all the information relating to their positions and transactions, but only with such information that is not contained in the draft position report. In addition, Members are required to verify and establish the correctness of the information within the draft position report.

Every Member and every prospective Member of PEGAS OTF, trading in financial instruments, is required to sign the "MiFID II/MiFIR Data Services Agreement" to facilitate the reporting of positions and transactions. In case of a contradiction between the MiFID II/MiFIR Data Services Agreement and this Market Notice, the MiFID II/MiFIR Data Services Agreement shall prevail.

PARAMETERS AND TECHNICAL PROVISIONS

POWERNEXT® Organised Trading Facility / PEGAS OTF Notice n° OTF-2018-22 28/09/2018

1 Delivery Organisations on PEGAS OTF

Pursuant to Article 2.1.4 of the Market Rules of the Powernext® Organised Trading Facility, Powernext SAS hereby publishes the list of Delivery Organisations on PEGAS OTF:

- GRTgaz and Teréga PEG
- NetConnect Germany NCG
- Gaspool Balancing Services GASPOOL
- Gasunie Transport Services (GTS) TTF
- Fluxys ZTP, ZEE
- National Grid NBP
- SNAM Rete Gas PSV
- Energinet.dk, natural gas Transmission System Operator of the Danish region
- Central European Gas Hub AG, Market Area Manager for Austria

2 Operating support

Members shall have access to hotline support for their trading access as well as for the Off-Order Book Interest Registration System, particularly as regards:

- queries about system functions and queries about the Off-Order Book Interest Registration System,
- queries about any malfunctions that may occur.

Authorized Registering Brokers shall have access to hotline support for the Off-Order Book Interest Registration System, particularly as regards:

- queries about the functions of the Off-Order Book Interest Registration System,
- queries about any malfunctions that may occur.

Operating support contact:

	Mail	Phone
Mon Fri, during Business hours (08:00-18:30CET)	gas@powernext.com	+33 1 73 03 96 24

This support service does not cover malfunctions related to the configuration of the Members' or Registering Brokers' equipment or Internet connections.

Powernext Market Operations can upon request on behalf of a registered trader:

- enter or cancel Orders ("kill functionality")
- enter trade

This should only be done in exceptional circumstances if the Member cannot access the trading system. There is no fee associated with this service. A confirmation of the request by email is required prior to the trading or order on behalf.

3 Transaction Cancellation

Pursuant to Article 1.4.2.10 of the Market Rules of the Powernext® Organised Trading Facility, a Transaction can be cancelled if it was executed outside a price range around the reference price. The cancellation requests must be telephoned to Powernext SAS (contact numbers specified above) no later than ten (10) minutes after Matching has occurred. Powernext SAS informs the market within the five (5) minutes following the request that a cancellation procedure has been launched. Powernext SAS informs the market of the outcome of such procedure.

The price ranges out of which Powernext SAS can cancel a Transaction in accordance with Article 1.4.2.10 of the Market Rules are defined hereafter:

Contracts	TTF	NCG GASPOOL PEG CEGH VTP	ETF PXE	PSV ZTP	NBP ZEE	GASPOOL / TTF PSV / TTF ZTP / TTF CEGH / TTF	CEGH / GASPOOL CEGH / NCG	ZEE / NBP
							ETF / GASPOOL ETF / NCG ETF / TTF	
	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7	Group 8
M+1	± 0,1 €	± 0,15 €	± 0,3 €	± 0,2 €	± 0,2 p	± 0,05 €	± 0,1 €	± 0,2 p
M+2	± 0,2 €	± 0,2 €	± 0,35 €	± 0,25 €	± 0,25 p	± 0,05 €	± 0,1 €	± 0,2 p
M+3	± 0,25 €	± 0,25 €	± 0,4 €	± 0,3 €	± 0,3 p	± 0,05 €	± 0,1 €	± 0,2 p
M+4 and over	± 0,25 €	± 0,25 €	± 0,4 €	± 0,3 €	± 0,3 p	± 0,05 €	± 0,1 €	± 0,2 p
Q+1	± 0,12 €	± 0,2 €	± 0,35 €	± 0,25 €	± 0,25 p	± 0,05 €	± 0,1 €	± 0,2 p
Q+2	± 0,25 €	± 0,25 €	± 0,4 €	± 0,3 €	± 0,3 p	± 0,05 €	± 0,1 €	± 0,2 p
Q+3	± 0,3 €	± 0,3 €	± 0,4 €	± 0,35 €	± 0,4 p	± 0,05 €	± 0,1 €	± 0,2 p
Q+4 and over	± 0,3 €	± 0,3 €	± 0,4 €	± 0,35 €	± 0,4 p	± 0,05 €	± 0,1 €	± 0,2 p
S+1	± 0,12 €	± 0,2 €	± 0,35 €	± 0,25 €	± 0,25 p	± 0,05 €	± 0,1 €	± 0,2 p
S+2	± 0,25 €	± 0,25 €	± 0,4 €	± 0,3 €	± 0,3 p	± 0,05 €	± 0,1 €	± 0,2 p
S+3	± 0,3 €	± 0,3 €	± 0,4 €	± 0,35 €	± 0,35 p	± 0,05 €	± 0,1 €	± 0,2 p
S+4 and over	± 0,3 €	± 0,3 €	± 0,4 €	± 0,35 €	± 0,35 p	± 0,05 €	± 0,1 €	± 0,2 p
C+1	± 0,2 €	± 0,25 €	± 0,35 €	± 0,35 €	± 0,25 p	± 0,05 €	± 0,1 €	± 0,2 p
C+2	± 0,2 €	± 0,25 €	± 0,35 €	± 0,3 €	± 0,25 p	± 0,05 €	± 0,1 €	± 0,2 p
C+3	± 0,2 €	± 0,25 €	± 0,4 €	± 0,35 €	± 0,3 p	± 0,05 €	± 0,1 €	± 0,2 p
C+4	± 0,2 €	± 0,25 €	± 0,4 €	± 0,35 €	± 0,3 p	± 0,05 €	± 0,1 €	± 0,2 p
C+5 and over	± 0,25 €	± 0,3 €	± 0,4 €	± 0,35 €	± 0,3 p	± 0,05 €	± 0,1 €	± 0,2 p

Pursuant to Article 1.4.2.10 of the Market Rules of the Powernext® Organised Trading Facility, Powernext SAS may also cancel a Transaction if both counterparties give their assent.

4 Entry of opposite-side orders of same price by a Member (“crosstrade”)

Pursuant to Article 1.4.1.1. of the Market Rules of the Powernext® Organised Trading Facility, the entry by a Member of two opposite-sides Orders of the same price on the same Contract is technically possible in the Trading System. However it is not allowed to knowingly trade for its own account or for the account of a customer when entering two opposite-sides Orders of the same price on the same Contract unless it follows the conditions below:

- The Member shall send a written motivated request to be technically authorized to enter opposite-side orders of same price
- The Orders must be conform to the Rules of Conduct as per article 1.2.3.2. of the Market Rules of the Powernext® Organised Trading Facility
- The Member shall call the Operating Support which contacts are defined by Market Notice before inserting two opposite-side Orders, so that Powernext SAS informs the market of the action
- The two Orders must be entered into the System between 5 and 65 seconds following the information Powernext SAS sent to the Market.

5 Configuration, licences and support

5.1 Configuration of the Member's and of the Authorised Registering Broker's equipment

Members shall have the following hardware and software:

- a PC running Windows, with a pack permitting 128 bit encryption, with a processor of at least 2 GHz Pentium class, memory at least 2 GB RAM with one of the following Operating System:
 - Microsoft Windows Vista Business
 - Microsoft Windows XP with service pack 2
 - Microsoft Windows 7.
- a firewall with the following ports open:
 - TCP 12995
 - TCP 12997
 - TCP 443
- an internet connection and Microsoft Internet Explorer version 6 or higher.

Registering Brokers shall have the following hardware and software:

- a PC running Windows, with a pack permitting 128 bit encryption, with a processor of at least 2 GHz Pentium class, memory at least 2 GB RAM with one of the following Operating System:
 - Microsoft Windows Vista Business
 - Microsoft Windows XP with service pack 2
 - Microsoft Windows 7.
- a firewall with the following ports open:
 - TCP 443
- an internet connection and Microsoft Internet Explorer version 6 or higher.

5.2 For Trayport front-end users, licence for the Joule Direct front-end

Before using the Joule Direct front-end, Members must accept the terms of the licence, which is displayed in electronic form when the system is used for the first time.

If the aforementioned licence or the Trading Agreement is terminated, Members must uninstall and completely remove Joule Direct front-end from their systems.

5.3 Possible front end to access the trading system

The trading system is composed of the Deutsche Börse T7 backend, linked to the EUREX Clearing system. The trading system can be accessed by the native T7 GUI. In order to be able to access all Powernext markets, it is recommended to use Trayport Joule Direct system.

On top of T7 GUI and Joule Direct, a series of different ISVs enables to access the trading system (not limited to this list):

CQG
EASYSSCREEN
EXXETA AG
FFASTFILL

FIDESSA
FIS GLOBAL
TRADING TECHNOLOGIES INTERNATIONAL, INC
Vela (formerly OptionsCity)

5.4 Operating and technical documentation

The documentation mentioned in the Trading Agreement ("Technical documentation") and in the Powernext® OTF Brokers Agreement shall be made available by Powernext SAS by any means at its disposal.

The purpose of such documentation is to provide the explanations needed for using the Trading System and the Off-Order Book Interest Registration System. It is subject to change and has no contractual value. These recommendations must be followed to ensure proper use of the Trading Systems and proper Registration of Off-Order Book Interests.

6 Communications on PEGAS OTF

→ Normal procedures

	Transmission of Orders	Publication Order Book	Publication of Transactions	Transmission of Back-Office documents	
Information sent	<ul style="list-style-type: none"> ▪ Prices ▪ Volumes ▪ Order types ▪ Flags ▪ Order Condition ▪ Short codes 	<ul style="list-style-type: none"> ▪ Prices ▪ Volumes ▪ Order types ▪ Order Condition 	<ul style="list-style-type: none"> ▪ Prices ▪ Volumes ▪ Time of the Transaction 	Member « Trades » files	invoices for annual Membership fees, annual technical fees, trading fees and other fees
Schedule/ Frequency of dispatch	In real time during the opening times of the Order Book.	In real time during the opening times of the Order Book.	During a trading session, in real time, as soon as the transaction is executed.	8.00 am -06:15pm	Monthly
Sender	Members	Powernext SAS	Powernext SAS	Powernext SAS	Powernext SAS
Receiver	Powernext SAS	Members	Members	Trading Members	Trading Members
Primary system used	EUREX T7	EUREX T7	EUREX T7	FTP Powernext	FTP Powernext
Secondary system used	Email / Phone		FTP Server	Email	Email Mail

→ Fall-back procedures

If the trading system is unavailable:

- Trading shall be suspended.
- Powernext shall inform Members by any means including emails of the trading suspension and when trading will resume.

→ Short code Mapping file

For short codes in the context of MiFID II (including but not limited to <Investment Decision Maker>, <Execution trader>, <ClientID>) a Mapping file is required for financial instruments. Powernext SAS provide a mapping service to allow clients to submit a dedicated file to the Member Portal with a mapping table of short codes used at the order entry and the corresponding long codes that will be used for transaction reporting to the regulators. Any Mapping files are valid until the provided „valid-date“ within the file. A procedure is available on Powernext SAS website.

TRADING HALT AND VOLATILITY INTERRUPTION ON PEGAS OTF

Pursuant to Article 1.4.2.2 of the Market Rules of the Powernext® Organised Trading Facility, Powernext SAS can temporarily suspend the continuous trading, postpone the start or delay the close of trading, or cancel the session in the event of a threat to the integrity security or efficiency of Powernext® Organised Trading Facility.

Powernext SAS uses two mechanisms for volatility management: the trading halt, which can be activated at the discretion of Market Supervision, and the volatility interruption mechanism, which can be activated automatically.

1. Trading Halt

Market Operation may halt the market if it judges that market conditions or technical conditions impair the integrity of the market. In such case, a product will be set to a Halt state. During this state:

- ➔ Traders are only allowed to delete their Orders. No Order entry or modification is allowed.
- ➔ Quotes are automatically deleted.
- ➔ No matching occurs.

The decision of a trading Halt is taken by Powernext Market Operations. This decision considers the following thresholds between two transactions on the same instrument:

Contract type	Thresholds	
	For contracts trading in €/MWh	For contracts trading in p/th
Month contracts	+/- 5.00 €/MWh	+/- 14.50 p/th
Quarter contracts	+/- 4.00 €/MWh	+/- 11.50 p/th
Season contracts	+/- 3.00 €/MWh	+/- 9.00 p/th
Calendar contracts	+/- 2.50 €/MWh	+/- 7.50 p/th

Taking into account the market conditions, when one of the thresholds set by this Market Notice is reached, Powernext SAS reserves the right not to suspend the trading session if the integrity, the security or the efficiency of Powernext Organised Trading Facility could be threatened by such a suspension.

2. Volatility interruption

The volatility interruption functionality is a mechanism that prevents large deviations of trading prices in short time windows. When an incoming Order at a new execution price inserted in the Order Book, the central matching engine checks the new execution price against all execution prices in the same instrument that occurred in a short time interval before the current transaction. If the matching engine finds an execution price in that time interval which differs too much from the new execution price, the continuous trading state of the affected instrument is stopped and the instrument's state changes automatically to a volatility auction. The volatility interruption is applied as follows:

- ➔ The execution at the offending new execution price and any further executions of the incoming Order are prevented
- ➔ The state of the affected instrument is changed to Volatility auction.
- ➔ The incoming Order is written to the book, or in case of IOC Order¹, it is cancelled. Executions of that Order that had been done at other prices before the condition was detected remain valid.
- ➔ Quotes and non-persistent Orders² are automatically deleted by the system.

During the auction phase, members can insert, cancel and modify their Orders. However, the Orders will not be automatically matched but rather pooled until the end of the auction phase. The auction is manually steered by Market Operations, who reviews the market situation and decides to re-open the continuous trading once it concludes that the conditions are satisfactory.

¹ Immediate-Or-Cancel (IOC): Orders are deleted automatically after having been processed on entry, without ever going to the order book.

² Any Order can be entered either as Persistent or as Non-Persistent order. Non-persistent orders are automatically deleted in case of Trading halt, volatility interruption, owing session disconnection or technical back end partition overload.

CLOSING PRICE METHODOLOGY

POWERNEXT® Organised Trading Facility / PEGAS OTF Notice n° OTF-2018-23 28/09/2018

Powernext has designed a methodology to determine the Closing Prices of the PEGAS OTF Contracts. Closing prices are provided to ECC which use them in the execution of all clearing processes and, specifically, for the calculation of each Member's Variation Margin.

The Closing Price is calculated for the following Contracts:

- PEGAS OTF Futures PEG
 - PEGAS OTF Futures TTF
 - PEGAS OTF Futures NCG
 - PEGAS OTF Futures GASPOOL
 - PEGAS OTF Futures ZTP
 - PEGAS OTF Futures ZEE
 - PEGAS OTF Futures NBP
 - PEGAS OTF Futures PSV
 - PEGAS OTF Futures ETF
 - PEGAS OTF Futures CEGH VTP
- For Contracts that are liquidated through physical settlement, the methodology below applies for the calculation of the Last Closing Price used for the delivery period;

In principle the order book situation is used as the basis for settlement pricing. Only trades and orders which fulfill product/contract-specific parameters are used for pricing.

These parameters include:

- Beginning and duration of the Closing Period (see section 3.1 below)
- Minimum number of contracts for the consideration of trades and best bid/best ask (see section 3.2 below)
- Minimum duration of the cumulated valid best bid/best ask during the Closing Period (see section 3.4 below)
- Weighting between trades and mean values from average best bid/best ask (see section 2 Step1 below)
- Maximum settlement spread per contract for consideration for settlement (see section 3.3 below)

The Closing Period is the period at the end of the trading session when Powernext SAS collects gross data necessary for the calculation of Closing Prices sent to the Clearing House. The Clearing House can choose to use them or not when establishing its Settlement Prices. Settlement Prices are used by the Clearing House to set up the prices at which the end-of-the-day Open Positions will be marked in its clearing process. The Closing Prices are determined according to the following methodology.

1. Contracts considered

The market data taken into account in order to establish the Closing Price of the following Contracts

- PEGAS OTF Futures PEG;
- PEGAS OTF Futures TTF ;
- PEGAS OTF Futures NCG ;
- PEGAS OTF Futures GASPOOL ;
- PEGAS OTF Futures PSV ;
- PEGAS OTF Futures ZTP;
- PEGAS OTF Futures ZEE;
- PEGAS OTF Futures NBP;
- PEGAS OTF Futures ETF;
- PEGAS OTF Futures CEGH VTP.

are coming both from the PEGAS Regulated Market Order Book and from the PEGAS OTF Order Book. The considered Contracts from PEGAS Regulated Market are respectively the following:

- PEGAS Regulated Market Futures PEG;
- PEGAS Regulated Market Futures TTF ;
- PEGAS Regulated Market Futures NCG ;
- PEGAS Regulated Market Futures GASPOOL ;

- PEGAS Regulated Market Futures PSV ;
- PEGAS Regulated Market Futures ZTP;
- PEGAS Regulated Market Futures ZEE;
- PEGAS Regulated Market Futures NBP;
- PEGAS Regulated Market Futures ETF;
- PEGAS Regulated Market Futures CEGH VTP;

The terms « PEG », « TTF », « NCG », « GASPOOL », « PSV », « ZTP », « ZEE », « NBP », « ETF », and « CEGH VTP » shall be understood as referring to both PEGAS Regulated Market and PEGAS OTF Futures contracts.

2. Steps of the calculation of Closing Prices

Step 1: Calculation of Theoretical Closing Prices

The Theoretical Closing Prices are determined on the basis of defined calculation algorithms. In this context, the underlying method depends on the number of valid trades and orders which fulfil the product-specific preconditions (see section 3).

The price sources which can be used to calculate the theoretical closing price, weighed in descending priority, are as follow:

1. Trades and orders which respects criterias defined below
2. External sources and correlations between products
3. Price Committee
4. Last Exchange Trade before Closing Period
5. Last OTC Trade before Closing Period
6. Previous Closing Price

Powernext SAS reserves the right to depart from this prioritization in case the thus determined theoretical Closing Price reflects the actual market conditions more precisely. Mistrades or trades cancelled are not considered. Powernext SAS reserves the right to exclude individual trades or orders from pricing if these are not in line with the actual situation on the market.

The following overview provides examples of possible scenarios and the calculation algorithms connected with these:

Order book situation	Calculation algorithm
There was at least one trade. There were orders.	Theoretical Closing Price = $0.75 * \text{AverageTradePrice} + 0.25 * \text{AverageMid}$
There was at least one trade. There were no orders.	Theoretical Closing Price = AverageTradePrice
There was no trade. There were orders.	Theoretical Closing Price = AverageMid
There was no trade. There were no orders.	The theoretical Closing Price can be established based on data of other price sources or the price committee.

The AverageTradePrice is established as the mean value of the exchange prices traded during the Closing Period.

The AverageMid is calculated as the mean value of the average best bid and the average best ask. The average best bid (the average best ask) is established as the average from all highest buy orders (lowest sell orders) which lie within the limits of the current settlement spread during the time window for the individual contract during this period on the market.

Every Member can take part in the Price Committee procedure through representation by a registered trader as defined in the Price CommitteeNotice.

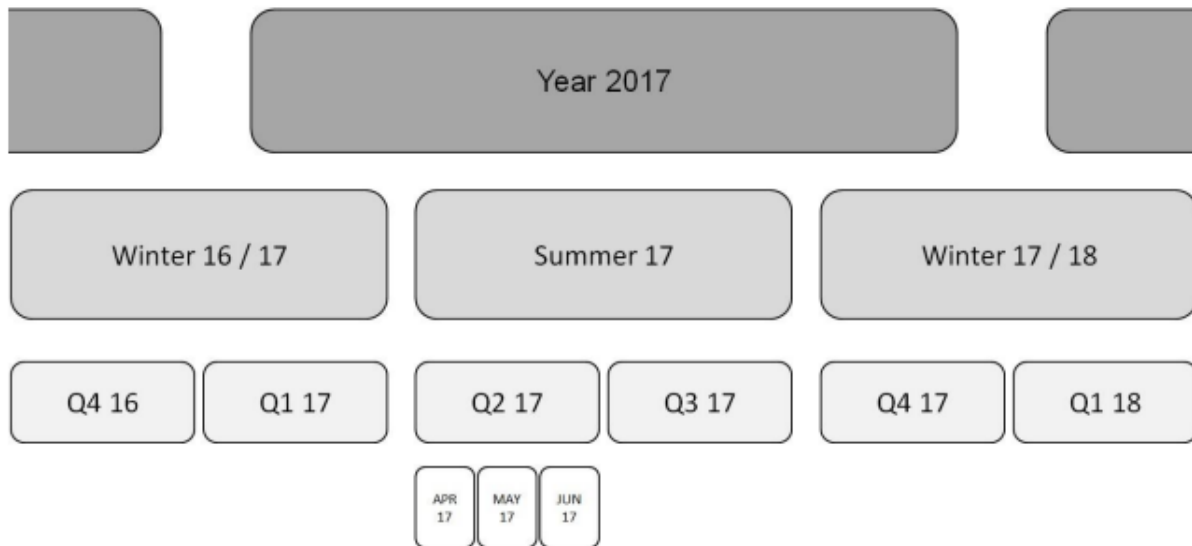
In case of contracts without an Open Interest, Powernext reserves the right to waive the determination of closing prices. In this case, the minimum price is determined pro forma as the closing price (0.001EUR).

Step 2: adjustment of Closing Prices for Overlapping Contracts

Once they are calculated the Theoretical Closing Prices are adjusted by Powernext SAS so as to comply with the relations between the Closing Prices of the Contracts with overlapping periods (for example the 3 Month Contracts of the same quarter and this Quarter Contract). They are said to be arbitrage-free prices. For the calculation of arbitrage free prices, the following scenarios are possible:

- Arbitrage between quarter and year contracts
- Arbitrage between quarter and season contracts
- Arbitrage between month and quarter contract

These scenarios can also be fulfilled simultaneously, as the following example chart shows. In this example, the principle of freedom from arbitrage is fulfilled under the following conditions:



$$Y_{17} = (Q1_{17} * h_{Q1\ 17} + Q2_{17} * h_{Q2\ 17} + Q3_{17} * h_{Q3\ 17} + Q4_{17} * h_{Q4\ 17}) / (h_{Q1\ 17} + h_{Q2\ 17} + h_{Q3\ 17} + h_{Q4\ 17})$$

And

$$Q2_{17} = (M4_{17} * h_{M4\ 17} + M5_{17} * h_{M5\ 17} + M6_{17} * h_{M6\ 17}) / (h_{M4\ 17} + h_{M5\ 17} + h_{M6\ 17})$$

In the case of the season contracts in this example, the following conditions have to be fulfilled:

$$Y_{17} = (Q1_{17} * h_{Q1\ 17} + S_{Summer\ 17} * h_{S_{Summer\ 17}} + Q4_{17} * h_{Q4\ 17}) / (h_{Q1\ 17} + h_{S_{Summer\ 17}} + h_{Q4\ 17})$$

And

$$S_{Winter\ 16/17} = (Q4_{16} * h_{Q4\ 16} + Q1_{17} * h_{Q1\ 17}) / (h_{Q4\ 16} + h_{Q1\ 17})$$

$$S_{Summer\ 17} = (Q2_{17} * h_{Q2\ 17} + Q3_{17} * h_{Q3\ 17}) / (h_{Q2\ 17} + h_{Q3\ 17})$$

$$S_{Winter\ 17/18} = (Q4_{17} * h_{Q4\ 17} + Q1_{18} * h_{Q1\ 18}) / (h_{Q4\ 17} + h_{Q1\ 18})$$

as well as

$$Q2_{17} = (M4_{17} * h_{M4\ 17} + M5_{17} * h_{M5\ 17} + M6_{17} * h_{M6\ 17}) / (h_{M4\ 17} + h_{M5\ 17} + h_{M6\ 17})$$

Legend:

- Y = Theoretical Closing Price of a year contract
- S = Theoretical Closing Price of a season contract
- Q = Theoretical Closing Price of a quarter contract
- M = Theoretical Closing Price of a month contract
- h = Contract volume

Freedom from arbitrage is ensured if there is a difference of EUR/GBP/USD 0.00 between the contracts with overlapping maturities after commercial rounding.

In this context, on principle, prices resulting from trades and/or orders are adjusted to a lower degree than prices established based on data of other price sources or the Price Committee.

During that step Closing Prices are rounded to three decimals and technically provided to the Clearing house with three decimals.

3. Parameters

3.1. Closing period

The methodology to determine the Closing Price of the Contracts is based on a Closing Period of 15 minutes. This Closing Period starts at **5pm CET** and finishes at **5:15pm CET**.

3.2. Minimum volume for orders and trades

The Minimal Closing Volume is the minimum volume of a Trade or an Order to be taken into account in the computation of the Closing Price.

Both average mid spreads and trades (weighted by their volumes) during the Closing Period are taken into account. Bid/ask Orders and Trades strictly below certain volumes are not taken into account. The minimum volumes for Orders and for Trades are indicated in the Table 1 below:

Contract type	PEG	TTF	NCG GASPOOL	ZTP	PSV	NBP	ZEE	ETF	CEGH VTP
M+1	720 MWh/j	30 MW	10 MW	10 MW	10 MW	25 Kth	25 Kth	10 MW	10 MW
M+2	720 MWh/j	30 MW	10 MW	10 MW	10 MW	25 Kth	25 Kth	10 MW	10 MW
M+3	720 MWh/j	30 MW	10 MW	10 MW	10 MW	25 Kth	25 Kth	10 MW	10 MW
M+4 and more	720 MWh/j	30 MW	10 MW	10 MW	10 MW	25 Kth	25 Kth	10 MW	10 MW
Q+1	720 MWh/j	30 MW	10 MW	5 MW	10 MW	25 Kth	25 Kth	5 MW	10 MW
Q+2	720 MWh/j	30 MW	10 MW	5 MW	10 MW	25 Kth	25 Kth	5 MW	10 MW
Q+3	720 MWh/j	30 MW	10 MW	5 MW	10 MW	25 Kth	25 Kth	5 MW	10 MW
Q+4 and more	720 MWh/j	30 MW	10 MW	5 MW	10 MW	25 Kth	25 Kth	5 MW	10 MW
S+1	720 MWh/j	30 MW	10 MW	3 MW	10 MW	25 Kth	25 Kth	3 MW	10 MW
S+2	720 MWh/j	30 MW	10 MW	3 MW	10 MW	25 Kth	25 Kth	3 MW	10 MW
S+3	720 MWh/j	30 MW	10 MW	3 MW	10 MW	25 Kth	25 Kth	3 MW	10 MW
S+4 and more	720 MWh/j	30 MW	10 MW	3 MW	10 MW	25 Kth	25 Kth	3 MW	10 MW
C+1	240 MWh/j	10 MW	10 MW	2 MW	10 MW	5 Kth	5 Kth	2 MW	10 MW
C+2	240 MWh/j	10 MW	10 MW	2 MW	10 MW	5 Kth	5 Kth	2 MW	10 MW
C+3	240 MWh/j	10 MW	10 MW	2 MW	10 MW	5 Kth	5 Kth	2 MW	10 MW
C+4 and more	240 MWh/j	10 MW	10 MW	2 MW	10 MW	5 Kth	5 Kth	2 MW	10 MW

Table 1 Minimum volume for Orders and Trades**3.3. Maximum spreads for orders**

The maximum average spread value that an Contract can have to be taken into account. The values for each Contract are indicated in Table 2:

Contract	ZTP	PEG	TTF	NCG	GASPOOL	NBP	ZEE	ETF	CEGH VTP
MaxSpread									
M+1	1,50 €/MWh	0,60 €/MWh	0,60 €/MWh	0,60 €/MWh	0,60 €/MWh	0,60 p/th	0,60 p/th	0,80 €/MWh	0,60 €/MWh
M+2	1,00 €/MWh	0,80 €/MWh	0,80 €/MWh	0,80 €/MWh	0,80 €/MWh	0,80 p/th	0,80 p/th	1,00 €/MWh	0,60 €/MWh
M+3	1,00 €/MWh	1,00 €/MWh	1,00 €/MWh	1,00 €/MWh	1,00 €/MWh	1,00 p/th	1,00 p/th	1,00 €/MWh	1,00 €/MWh
M+4	1,00 €/MWh	1,00 €/MWh	1,00 €/MWh	1,00 €/MWh	1,00 €/MWh	1,00 p/th	1,00 p/th	1,00 €/MWh	1,00 €/MWh
Month after	1,00 €/MWh	1,00 €/MWh	1,00 €/MWh	1,00 €/MWh	1,00 €/MWh	1,00 p/th	1,00 p/th	1,00 €/MWh	1,00 €/MWh
Q+1	1,00 €/MWh	0,80 €/MWh	0,80 €/MWh	1,00 €/MWh	1,00 €/MWh	0,80 p/th	0,80 p/th	1,00 €/MWh	1,00 €/MWh
Q+2	1,00 €/MWh	1,00 €/MWh	1,00 €/MWh	1,00 €/MWh	1,00 €/MWh	1,00 p/th	1,00 p/th	1,00 €/MWh	1,00 €/MWh
Q+3	1,00 €/MWh	1,40 €/MWh	1,20 €/MWh	1,00 €/MWh	1,00 €/MWh	1,20 p/th	1,40 p/th	1,00 €/MWh	1,00 €/MWh
Q+4	1,50 €/MWh	1,40 €/MWh	1,20 €/MWh	1,00 €/MWh	1,00 €/MWh	1,20 p/th	1,40 p/th	1,50 €/MWh	1,50 €/MWh
Q+5	1,50 €/MWh	1,40 €/MWh	1,40 €/MWh	1,00 €/MWh	1,00 €/MWh	1,40 p/th	1,40 p/th	1,50 €/MWh	1,50 €/MWh
Quarter after	1,50 €/MWh	1,40 €/MWh	1,40 €/MWh	1,00 €/MWh	1,00 €/MWh	1,40 p/th	1,40 p/th	1,50 €/MWh	1,50 €/MWh
S+1	1,00 €/MWh	0,80 €/MWh	0,80 €/MWh	1,00 €/MWh	1,00 €/MWh	0,80 p/th	0,80 p/th	1,00 €/MWh	1,00 €/MWh
S+2	1,00 €/MWh	1,00 €/MWh	1,00 €/MWh	1,00 €/MWh	1,00 €/MWh	1,00 p/th	1,00 p/th	1,00 €/MWh	1,00 €/MWh
S+3	1,50 €/MWh	1,20 €/MWh	1,20 €/MWh	1,00 €/MWh	1,00 €/MWh	1,20 p/th	1,20 p/th	1,50 €/MWh	1,50 €/MWh
S+4	1,50 €/MWh	1,20 €/MWh	1,20 €/MWh	1,00 €/MWh	1,00 €/MWh	1,20 p/th	1,20 p/th	1,50 €/MWh	1,50 €/MWh
Season after	1,50 €/MWh	1,20 €/MWh	1,20 €/MWh	1,00 €/MWh	1,00 €/MWh	1,20 p/th	1,20 p/th	1,50 €/MWh	1,50 €/MWh
C+1	1,20 €/MWh	0,80 €/MWh	0,80 €/MWh	1,00 €/MWh	1,00 €/MWh	0,80 p/th	0,80 p/th	1,20 €/MWh	1,20 €/MWh
C+2	1,20 €/MWh	0,80 €/MWh	0,80 €/MWh	1,00 €/MWh	1,00 €/MWh	0,80 p/th	0,80 p/th	1,20 €/MWh	1,20 €/MWh
C+3	1,20 €/MWh	1,00 €/MWh	1,00 €/MWh	1,00 €/MWh	1,00 €/MWh	1,00 p/th	1,00 p/th	1,20 €/MWh	1,20 €/MWh
C+4	1,20 €/MWh	1,00 €/MWh	1,00 €/MWh	1,00 €/MWh	1,00 €/MWh	1,00 p/th	1,00 p/th	1,20 €/MWh	1,20 €/MWh
Cal after	1,20 €/MWh	1,00 €/MWh	1,00 €/MWh	1,00 €/MWh	1,00 €/MWh	1,00 p/th	1,00 p/th	1,20 €/MWh	1,20 €/MWh

Table 2 Maximum Bid/Ask spread Orders**3.4. Minimum duration during the closing period**

Average Bid/Ask spread must be in the order book for at least 180 seconds for all hubs.

TRADING HOURS, BUSINESS DAYS AND CONTRACTS CALENDARS

POWERNEXT® Organised Trading Facility / PEGAS OTF

Notice n° OTF-2019-03

31/01/2019

I. TRADING HOURS

1) Order Book opening hours

Powernext SAS publishes hereafter the Order Book opening hours in accordance with article 2.4.2. of the Market Rules of Powernext® OTF:

- From **08:00 AM** to **06:00 PM** CET.

2) Trading Hours

Powernext SAS publishes hereafter the Trading Hours of PEGAS OTF in accordance with articles 1.3.2.3, 1.4.2.2., 1.4.2.3 1.5.2.1 and 2.4.3 of the Market Rules of the Powernext® Organised Trading Facility:

Central European Time (CET)	Trading on screen	Off-order Book interests registration (Trade Registration)	
		PEGAS OTC web	EUREX Clearing
Opening	08:00 am	08:00 am	08:00 am
Closing	06:00 pm	06:00 pm	06:00 pm
Time limit for Off-order Book interests registration (Trade Registration)	n/a	06:50 pm	n/a
Time limit for the validation of Off-order Book interests (Trade Registration)	n/a	06:00 pm	n/a

Closing hours for the trading sessions of the 24th and 31st of December close earlier ("early closing"), at 1.00 pm CET.

II. TRADING CALENDAR

Powernext SAS publishes hereafter the Trading Calendar of PEGAS OTF for the year 2019 in accordance with article 2.4.3. of the Market Rules of the Powernext® Organised Trading Facility. Trading Sessions occur only on business days, i.e. all days except Saturdays, Sundays and the following holidays:

Market closure days on Powernext Gas	
New Year's Day	New Year's Day 2019-01-01
Good Friday	Good Friday 2019-04-19
Easter Monday	Easter Monday 2019-04-22
Labour Day	May 1, 2019
Early May BH	Early May BH 2019-05-06
Spring BH	Spring BH 2019-05-27
Summer BH	Summer BH 2019-08-26
Xmas Day	Xmas Day 2019-12-25
Boxing Day	Boxing Day 2019-12-26

III. CONTRACTS CALENDARS

Pursuant to article 1.3.2.2 of the Market Rules of the Powernext® Organised Trading Facility, Powernext SAS publishes hereafter the listed contract periods for 2019.

TTF Futures contracts

Maturités / Maturities		Nombre de jours / Number of Days	Premier jour de négociation / Trading Start date	Dernier jour de négociation / Trading End date	Premier jour de livraison / Delivery Start (gas day)	Dernier jour de livraison / Delivery End (gas day)
Month	January 2019	31	29/06/2018	28/12/2018	01/01/2019	01/02/2019
Month	February 2019	28	31/07/2018	30/01/2019	01/02/2019	01/03/2019
Month	March 2019	31	31/08/2018	27/02/2019	01/03/2019	01/04/2019
Month	April 2019	30	28/09/2018	28/03/2019	01/04/2019	01/05/2019
Month	May 2019	31	31/10/2018	29/04/2019	01/05/2019	01/06/2019
Month	June 2019	30	30/11/2018	30/05/2019	01/06/2019	01/07/2019
Month	July 2019	31	31/12/2018	27/06/2019	01/07/2019	01/08/2019
Month	August 2019	31	31/01/2019	30/07/2019	01/08/2019	01/09/2019
Month	September 2019	30	28/02/2019	29/08/2019	01/09/2019	01/10/2019
Month	October 2019	31	29/03/2019	27/09/2019	01/10/2019	01/11/2019
Month	November 2019	30	30/04/2019	30/10/2019	01/11/2019	01/12/2019
Month	December 2019	31	31/05/2019	28/11/2019	01/12/2019	01/01/2020
Month	January 2020	31	28/06/2019	30/12/2019	01/01/2020	01/02/2020
Month	February 2020	29	31/07/2019	30/01/2020	01/02/2020	01/03/2020
Month	March 2020	31	30/08/2019	27/02/2020	01/03/2020	01/04/2020
Month	April 2020	30	30/09/2019	30/03/2020	01/04/2020	01/05/2020
Month	May 2020	31	31/10/2019	29/04/2020	01/05/2020	01/06/2020
Month	June 2020	30	29/11/2019	28/05/2020	01/06/2020	01/07/2020
Month	July 2020	31	31/12/2019	29/06/2020	01/07/2020	01/08/2020
Quarter	Q1 2019	90	30/03/2016	27/12/2018	01/01/2019	01/04/2019
Quarter	Q2 2019	91	29/06/2016	27/03/2019	01/04/2019	01/07/2019
Quarter	Q3 2019	92	29/09/2016	26/06/2019	01/07/2019	01/10/2019
Quarter	Q4 2019	92	29/12/2016	26/09/2019	01/10/2019	01/01/2020
Quarter	Q1 2020	91	30/03/2017	27/12/2019	01/01/2020	01/04/2020
Quarter	Q2 2020	91	29/06/2017	27/03/2020	01/04/2020	01/07/2020
Quarter	Q3 2020	92	28/09/2017	26/06/2020	01/07/2020	01/10/2020
Quarter	Q4 2020	92	28/12/2017	28/09/2020	01/10/2020	01/01/2021
Quarter	Q1 2021	90	28/03/2018	29/12/2020	01/01/2021	01/04/2021
Quarter	Q2 2021	91	28/06/2018	29/03/2021	01/04/2021	01/07/2021
Quarter	Q3 2021	92	27/09/2018	28/06/2021	01/07/2021	01/10/2021
Quarter	Q4 2021	92	28/12/2018	28/09/2021	01/10/2021	01/01/2022
Quarter	Q1 2022	90	28/03/2019	29/12/2021	01/01/2022	01/04/2022
Quarter	Q2 2022	91	27/06/2019	29/03/2022	01/04/2022	01/07/2022
Quarter	Q3 2022	92	27/09/2019	28/06/2022	01/07/2022	01/10/2022
Quarter	Q4 2022	92	30/12/2019	28/09/2022	01/10/2022	01/01/2023
Season	Summer 2019	183	30/03/2016	27/03/2019	01/04/2019	01/10/2019
Season	Winter 2019	183	29/09/2016	26/09/2019	01/10/2019	01/04/2020
Season	Summer 2020	183	30/03/2017	27/03/2020	01/04/2020	01/10/2020
Season	Winter 2020	182	28/09/2017	28/09/2020	01/10/2020	01/04/2021
Season	Summer 2021	183	28/03/2018	29/03/2021	01/04/2021	01/10/2021
Season	Winter 2021	182	27/09/2018	28/09/2021	01/10/2021	01/04/2022
Season	Summer 2022	183	28/03/2019	29/03/2022	01/04/2022	01/10/2022
Season	Winter 2022	182	27/09/2019	28/09/2022	01/10/2022	01/04/2023
Calendar	Calendar 2019	365	28/12/2012	27/12/2018	01/01/2019	01/01/2020
Calendar	Calendar 2020	366	30/12/2013	27/12/2019	01/01/2020	01/01/2021
Calendar	Calendar 2021	365	30/12/2014	29/12/2020	01/01/2021	01/01/2022
Calendar	Calendar 2022	365	30/12/2015	29/12/2021	01/01/2022	01/01/2023
Calendar	Calendar 2023	365	29/12/2016	28/12/2022	01/01/2023	01/01/2024
Calendar	Calendar 2024	366	28/12/2017	27/12/2023	01/01/2024	01/01/2025
Calendar	Calendar 2025	365	28/12/2018	27/12/2024	01/01/2025	01/01/2026
Calendar	Calendar 2026	365	30/12/2019	29/12/2025	01/01/2026	01/01/2027

All other Futures contracts

Maturités / Maturities		Nombre de jours / Number of Days	Premier jour de négociation / Trading Start (gas day)	Dernier jour de négociation / Trading End (gas day)	Premier jour de livraison / Delivery Start (gas day)	Dernier jour de livraison / Delivery End (gas day)
Month	January 2019	31	29/06/2018	28/12/2018	01/01/2019	01/02/2019
Month	February 2019	28	31/07/2018	30/01/2019	01/02/2019	01/03/2019
Month	March 2019	31	31/08/2018	27/02/2019	01/03/2019	01/04/2019
Month	April 2019	30	28/09/2018	28/03/2019	01/04/2019	01/05/2019
Month	May 2019	31	31/10/2018	29/04/2019	01/05/2019	01/06/2019
Month	June 2019	30	30/11/2018	30/05/2019	01/06/2019	01/07/2019
Month	July 2019	31	31/12/2018	27/06/2019	01/07/2019	01/08/2019
Month	August 2019	31	31/01/2019	30/07/2019	01/08/2019	01/09/2019
Month	September 2019	30	28/02/2019	29/08/2019	01/09/2019	01/10/2019
Month	October 2019	31	29/03/2019	27/09/2019	01/10/2019	01/11/2019
Month	November 2019	30	30/04/2019	30/10/2019	01/11/2019	01/12/2019
Month	December 2019	31	31/05/2019	28/11/2019	01/12/2019	01/01/2020
Month	January 2020	31	28/06/2019	30/12/2019	01/01/2020	01/02/2020
Month	February 2020	29	31/07/2019	30/01/2020	01/02/2020	01/03/2020
Month	March 2020	31	30/08/2019	27/02/2020	01/03/2020	01/04/2020
Month	April 2020	30	30/09/2019	30/03/2020	01/04/2020	01/05/2020
Month	May 2020	31	31/10/2019	29/04/2020	01/05/2020	01/06/2020
Month	June 2020	30	29/11/2019	28/05/2020	01/06/2020	01/07/2020
Month	July 2020	31	31/12/2019	29/06/2020	01/07/2020	01/08/2020
Quarter	Q1 2019	90	30/03/2017	27/12/2018	01/01/2019	01/04/2019
Quarter	Q2 2019	91	29/06/2017	27/03/2019	01/04/2019	01/07/2019
Quarter	Q3 2019	92	28/09/2017	26/06/2019	01/07/2019	01/10/2019
Quarter	Q4 2019	92	28/12/2017	26/09/2019	01/10/2019	01/01/2020
Quarter	Q1 2020	91	28/03/2018	27/12/2019	01/01/2020	01/04/2020
Quarter	Q2 2020	91	28/06/2018	27/03/2020	01/04/2020	01/07/2020
Quarter	Q3 2020	92	27/09/2018	26/06/2020	01/07/2020	01/10/2020
Quarter	Q4 2020	92	28/12/2018	28/09/2020	01/10/2020	01/01/2021
Quarter	Q1 2021	90	28/03/2019	29/12/2020	01/01/2021	01/04/2021
Quarter	Q2 2021	91	27/06/2019	29/03/2021	01/04/2021	01/07/2021
Quarter	Q3 2021	92	27/09/2019	28/06/2021	01/07/2021	01/10/2021
Quarter	Q4 2021	92	30/12/2019	28/09/2021	01/10/2021	01/01/2022
Season	Summer 2019	183	30/03/2016	27/03/2019	01/04/2019	01/10/2019
Season	Winter 2019	183	29/09/2016	26/09/2019	01/10/2019	01/04/2020
Season	Summer 2020	183	30/03/2017	27/03/2020	01/04/2020	01/10/2020
Season	Winter 2020	182	28/09/2017	28/09/2020	01/10/2020	01/04/2021
Season	Summer 2021	183	28/03/2018	29/03/2021	01/04/2021	01/10/2021
Season	Winter 2021	182	27/09/2018	28/09/2021	01/10/2021	01/04/2022
Season	Summer 2022	183	28/03/2019	29/03/2022	01/04/2022	01/10/2022
Season	Winter 2022	182	27/09/2019	28/09/2022	01/10/2022	01/04/2023
Calendar	Calendar 2019	365	28/12/2012	27/12/2018	01/01/2019	01/01/2020
Calendar	Calendar 2020	366	30/12/2013	27/12/2019	01/01/2020	01/01/2021
Calendar	Calendar 2021	365	30/12/2014	29/12/2020	01/01/2021	01/01/2022
Calendar	Calendar 2022	365	30/12/2015	29/12/2021	01/01/2022	01/01/2023
Calendar	Calendar 2023	365	29/12/2016	28/12/2022	01/01/2023	01/01/2024
Calendar	Calendar 2024	366	28/12/2017	27/12/2023	01/01/2024	01/01/2025
Calendar	Calendar 2025	365	28/12/2018	27/12/2024	01/01/2025	01/01/2026
Calendar	Calendar 2026	365	30/12/2019	29/12/2025	01/01/2026	01/01/2027

Trading Limits

A pre-trade limit is the possibility of limiting orders which can be entered into the trading systems (T7) by a Member.

Provided a corresponding agreement has been concluded by the clearing member with its non-clearing member, the clearing member of ECC, which provides settlement for said Member, is entitled to enter pre-trade limits.

Pre-trade limits can contain the individual restrictions specified below or a combination of these:

- Maximum number of contracts with reference to a product.
- Maximum value of contracts with reference to a product.
- Maximum amount of available total margins or special margins specified in more detail for further trading activities.

If one of the limits described above is reached, the system can take measures to stop the transmission of Orders by the Member concerned into the trading systems and, hence, discontinue the matching of such with other Orders. Orders which have already been entered into the Order books are deleted.

If certain limits are exceeded, the details shall be determined in an agreement between the Member and his Clearing Member, further entering or execution of orders can be limited for the duration of the exceedance and existing Orders can be deleted.

Additionally, a Member can optionally request the trading system to perform a Price Reasonability Check of its Orders. The reasonability check is a functionality that allows checking the Order price with a reference price. This reference price is calculated based on the best limits in the Orderbook and, in case of unavailability, the last prices (previous transactions or previous settlement).

DUE DILIGENCE FOR MEMBERS

ONLY APPLIES TO MEMBERS TRADING IN FINANCIAL INSTRUMENTS

1. Pre-trade controls on PEGAS OTF

Following the requirements on article 1.2.1.1.6. of the Powernext Organised Trading Facility, all Members must have in place pre-trade controls when entering orders.

In particular, Members that are Investment Firms must have in place:

- price collars, which automatically block or cancel orders that do not meet set price parameters, differentiating between different financial instruments, both on an order-by-order basis and over a specified period of time;
- maximum order values, which prevent orders with an uncommonly large order value from entering the order book;
- maximum order volumes, which prevent orders with an uncommonly large order size from entering the order book;
- maximum messages limits, which prevent sending an excessive number of messages to order books pertaining to the submission, modification or cancellation of an order

Powernext SAS automatically blocks order insertion in case Orders are exceeding the following pre-trade controls as defined by Powernext SAS:

- price collars, which automatically block orders that do not meet pre-set price parameters on an order-by-order basis;
- maximum order value, which automatically prevents orders with uncommonly large order values from entering the order book by reference to notional values per financial instrument;
- maximum order volume, which automatically prevents orders with an uncommonly large order size from entering the order book.

In exceptional circumstances and on a temporary basis, Powernext SAS may authorise an Order exceeding maximum order value, the maximum order volume or that do not fall into the price collars if the Member exceptionally requests it. Such request should be addressed to Powernext Market Operations in a written form.

Powernext SAS does not define a limit to the number of Orders sent per seconds by a Member, since there is not high frequency trading today at Powernext's markets. However, Powernext SAS reserves the right to define those limits in the future following the development of algorithmic trading in the Powernext Organised Trading Facility Contracts.

All Members shall have in place controls that enable them to check whether the Orders they are submitting are within the appropriate ranges. Members can use the trading limits functionalities offered by the trading system to do so.

2. Post-trade controls required to access PEGAS OTF

Post-trade controls must include as a minimum the continuous assessment and monitoring of market and credit risk of the Member and controls regarding the maximum long and short and overall strategy positions. If a post-trade control is triggered, the Member must take appropriate action.

3. Kill functionality

Members must be able to cancel immediately, as an emergency measure, any or all of its unexecuted orders submitted to PEGAS OTF (the "kill functionality"). For these purposes, unexecuted orders include those originating from individual traders or, where applicable, clients. Members must be able to identify which trading algorithm and which trader or where applicable, which client is responsible for each order that has been sent to PEGAS OTF.

4. Conformance testing

Before a Member is connected to the Powernext SAS trading system, the Member must conduct a conformance test to ensure that the basic functions of its Member front-end Installations comply with the Powernext SAS requirements. Conformance testing shall be used to verify the functioning of the following:

- -the ability of the Member Front-End Installations to interact as expected with the Powernext SAS matching logic and the adequate processing of the data flows from and to Powernext SAS;

- -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.

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

5. Maximum bid/ask spread in the context of Market Making strategy

A Member posting firm, simultaneous two-way quotes of comparable size and competitive prices and who deals on their own account in at least one financial instrument for at least 50% of the daily trading hours of continuous trading on Powernext Organised Trading Facility shall have a written Market Making Agreement with Powernext SAS.

In order to determine whether prices are competitive, maximum bid/ask spreads for each Contract are published on Powernext SAS website and available for download and will be regularly updated.

6. Position limits

Members holding a position in any Contracts on PEGAS OTF are subject to limits as published by *Autorité des Marchés Financiers* (AMF). Members shall not exceed at any time the limits defined by the regulator.

Powernext is internally verifying the positions of its Members based on the data that is available to Powernext (excluding data on positions held by members in economically equivalent OTC contracts and information relating to the hedging exemption). Powernext may warn its Members in case its alert system indicates they are approaching the limit. Please be advised that every Member is responsible for monitoring its open interest and that Powernext does not have this responsibility. Please also note that Powernext's alert system might not be sufficient to detect breaches of position limits.