

# PEGAS Futures migration to EUREX's T7

*November 2017*

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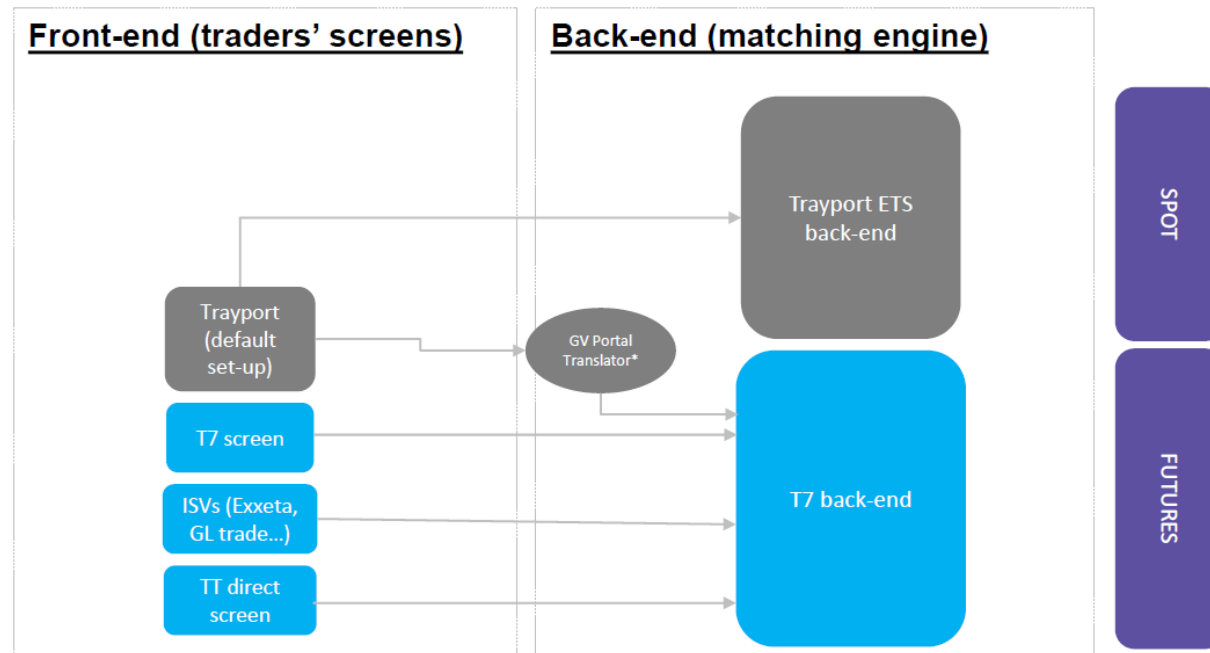
# Rationale for switching

- PEGAS Futures migration to T7 will ease the introduction of new products such as Options, which will be launched end February
- As an opened back-end system, T7 will facilitate the access to the gas market for some companies using various front-ends, bringing further liquidity to the PEGAS platform.
- It will also tighten the existing links between the PEGAS gas derivatives and the EEX power derivatives enabling them to be traded on the same platform, enabling common regulatory reporting solutions for customers, but also paving the way for products such as Spark spreads.

# Technical model when migrating to T7

As of December 8<sup>th</sup>, 2017

- PEGAS Futures back-end will switch to T7
- Traders will still need to use Trayport as a Back End to connect to PEGAS Spot markets
- Traders can also continue to use Trayport as Front End to connect to PEGAS Futures markets (especially to have all PEGAS products on the same screen), but can also use other frontends (T7, TT, or any allowed ISV)



# Member connectivity

## Connectivity impact for Spot only members :

- No changes for Direct Screen or TGW users.
- PEGAS Futures prices only available for Joule Direct users connected through GV Portal.

## Connectivity impact for Spot and Futures members :

- Direct Screen users need to switch to Joule Direct before go-live.
- No changes for TGW users except the “Broker code”.
- Possibility to use a different front-end but only for Futures.

## Connectivity impact for Futures only members :

- Direct Screen users need to switch to Joule Direct before go-live.
- No changes for TGW users except the “Broker code”.
- Possibility to use a different front-end.

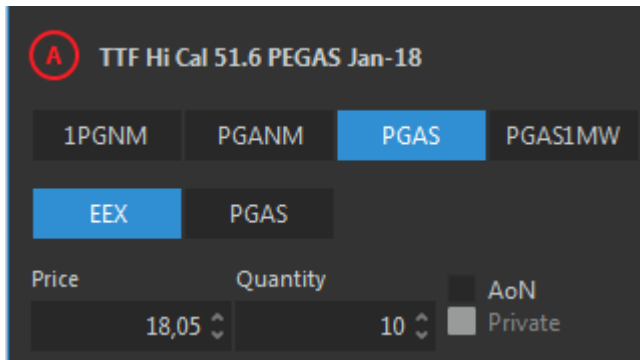
# Screen changes (1)

- For the spot contracts, there will be no changes
- For the futures contracts, the broker code to trade on PEGAS will be EEX.
  - Standard PEGAS contracts (Regulated market)
    - will be tradable with the PEGAS venue and the EEX code
    - will be tradable with the PEGAS venue and any broker code (for the OTC clearing stack)
  - Non-MTF and soon OTF products:
    - will be traded under the PGANM venue and the EEX broker code
    - will be tradable with the PGANM venue and any broker code (for the OTC clearing stack)
- Example of a screen:

		TTF Hi Cal 51.6*							
		Venue	Code	Qty	Bid	Ask	Qty	Code	Venue
+	Mar-16	PGAS	EEX	30	12.050	12.100	30	TFS	PGAS
+	DayAhead	PGAS	PGAS	30	12.050	12.100	30	PGAS	PGAS

# Screen changes (2)

The right image shows a full picture of all the PEGAS stacks and codes.



## Current view

all other PEGAS hubs			CEGH VTP WD		
	Venue	Code		Venue	Code
SPOT	PGAS	PGAS	WD only	PGAWD	PGAS
Future (Rm)	PGAS	PGAS			
Future 1MW (Rm)	PGAS1MW	PGAS			
Future non-MTF	PGANM	PGAS			
Future 1MW (non-MTF)	1PGNM	PGAS			

PSV		
	Venue	Code
Future Financial(Rm)	PGAS Fin	PGAS
Future Physical	PGAS Phys	PGAS
Future non-MTF	PGANM Phys	PGAS

## After T7 migration

all other PEGAS hubs			CEGH VTP WD		
	Venue	Code		Venue	Code
SPOT	PGAS	PGAS	WD only	PGAWD	PGAS
Future (Rm)	PGAS	EEX			
Future non-MTF	PGANM	EEX			

PSV		
	Venue	Code
Future Financial (Rm)	PGAS Fin	EEX
Future Physical (Rm)	PGAS Phys	EEX
Future non-MTF	PGANM Phys	EEX

# PEGAS Futures product offering (1)

## Gas Futures Outright

- **Additional maturities** will be introduced on all our delivery area.

	TTF	NCG	GPL	PEG Nord	TRS	ZTP	PSV	PSV Fin	CEG H	ETF	PXE	NBP	ZEE
<b>Month</b>	6	6	6	6	6	6	6	6	6	6	6	6	6
<b>Quarter</b>	11	7	7	7		7	7	7	7	7	7	7	7
<b>Season</b>	6	6	6	6		6	6	6	6	6	6	6	6
<b>Calendar</b>	6	6	6	6		6	6	6	6	6	6	6	6

*\* All Products will be available as Regulated Market and OTF (except PSV Fin)*

- **All products will be listed with 1 MW** or 1 MWh minimum quantity/volume tick (except for TRS, 10 MWh)
- **The Settlement Window** will be moved by 15 minutes (5:00 - 5:15 pm CET)
- **Settlement Prices** will be systematically computed for a standard batch of Products (corresponding to the existing PEGAS Futures offering before T7). For other tradable Futures contracts, Settlement Prices will only be computed for contracts with an open position



# PEGAS Futures product offering (2)

## Gas Futures Geographical Spreads

- Existing Spreads between delivery areas will be available for all listed Outright maturities, with a few exceptions at launch (see \*)
- Spreads between PEG Nord and MW quoted areas will not be available from the start by shall be introduced by mid-January

	NCG / TTF GPL / TTF PSV / TTF CEGH / TTF	GPL / NCG CEGH / NCG	CEGH / GPL	TRS / PEG Nord	PEG Nord / TTF PEG Nord / NCG PEG Nord / ZTP	PSV Fin / TTF PSV Fin / PSV	ZTP / TTF ZTP / NCG ZTP / GPL	ETF / TTF ETF / NCG ETF / GPL	ZEE / NBP	PSV / CEGH
<b>Month</b>	6	6	6	6	6*	6*	6	6	6	6
<b>Quarter</b>	7	7	7		7*	7	7*	7*	7	7
<b>Season</b>	6	6	6		6*	6	6*	6*	6	6
<b>Calendar</b>	6	6	6		6*	6	6*	6*	6	6

\* Marked products will be introduced shortly after the launch, around mid-January

# PEGAS Futures product offering (3)

## Gas Futures Time Spreads

- At launch, Time Spreads will **be limited to 3 combinations** for each Product group :  
ex: *M1xM2, M2xM3, M1xM3 for Month Futures, Q1xQ2, Q2xQ3, Q1xQ3 for Quarter Futures, etc.*
- Time Spreads shall **be extended to 6 combination** for each Product group around mid February.

## OTC Clearing

- Powernext's **OTC Web platform** will be maintained: <https://otc.pegas-trading.com/index.php>
- **Straight Through Process** (STP) technology will remain.
- Customer will also have access to **EUREX's Trade Entry Service system** (TES)

## Launch of Gas Options

- Following the T7 launch, it is planned to have Gas Options listed in February 2018

# Functionality changes with T7 (1)

## Order types and matching :

- “**Automatching**” of orders will be introduced, meaning that it will be possible to insert Limit Orders at the same price of an opposite order already in the orderbook. These orders will then be automatically matched
- “**All or none**” **functionality**, which enable a trading participant to prevent its orders from being partially executed, will not be available anymore after the migration to T7

# Functionality changes with T7 (2)

## Implied Spread transactions

- Venue Implied Prices: generated by the T7 back-end with guaranteed execution. Spreads are in “indirect aggression”: 1 deal on spread results in 2 trades.
  - Orders
    - A puts an ask on TTF at 10€
    - B puts an ask on NCG/TTF at 1€
    - C hits the implied order on NCG resulting at 11€
  - Transactions
    - B buys on TTF at 10€ from A
    - B sells at NCG at 11€ to C

## Special warning for Trayport users

- Trayport automatically generates locally on the Joule front-end implied prices that have a different behavior than the T7 generated implied:
- Trayport locally generated implied prices: generated by TGW – without guaranteed execution. Spreads are in “direct aggression”: 1 deal on spread results in 4 trades, with one being cancelled
  - Orders
    - A puts an ask on TTF at 10€
    - B puts an ask on NCG/TTF at 1€
    - C hits the implied order resulting at 11€
  - Transactions:
    - C BUYS the NCG/TTF from B at 1€- cancelled
    - C SELLS the TTF to B at 10€
    - C BUYS the NCG from B at 11€
    - C BUYS the TTF from A at 10€

- **To Trayport users: We recommend you to use the Venue Implied Prices generated by the T7 back-end in order to benefit from the best service. Indeed, those implied prices have 2 advantages:**
  - the execution is guaranteed,
  - even if you are only allowed to trade on NCG, you will be able to trade implied prices coming from TTF. This is not possible in the case of native TGW implied prices.
- The PEGAS venue implied prices are displayed with the « EEX » Broker Code, while the locally generated implied prices of your Trayport front-end appears without any Broker code.

# Functionality changes with T7 (3)

## Tradability

- It will not be possible for Trayport users to differentiate the tradability of products. Everything will appear in red.
  - For traders who are active on all hubs or on the same hubs on broker screens and on PEGAS, the change will be minimal compared to today.
  - For your traders' comfort, we recommend you to align permissions between exchange and brokers trading on one given hub. The Powernext operation team will be at your service if you would like to quickly change some traders permissions.

## Pre-trade Limits

- Depending on the ISV you are using, some pre-trade limits may be available

## Third Party Trading

- Members will now be able to distinguish their activity type at the order level

## Cross trading

- As T7 does not prohibit a Member to enter two opposite-sides orders at the same price, self trading could be technically possible.
  - Possible to avoid trading between 2 traders of the same company on Trayport screen
  - Not possible today to avoid trading between 2 different companies
  - In case of unexpected self trading, market operations team can immediately cancel the deal

# Functionality changes with T7 (4)

## MIFID II compliance

- New fields for MiFID compliance on order entry
  - Algorithmic trading or not
  - Proprietary or Agent trading
  - Hedging transaction
  
- Transaction and position reporting done at group level

# Changes in the technical fee price list

## **Trayport users**

- No changes compared to today's price list.
- Spot and Futures traders will pay the same price

## **T7 users – Futures only**

- One single cost for Power and Gas (no additional costs for Gas Futures) but any access to the spot requires a Trayport license.

## **TT users – Futures only**

- One single cost for Power and Gas (no additional costs for Gas Futures) but any access to the spot requires a Trayport license.



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pegas is the gas trading  
platform of eex group,  
operated by powernext