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CENTRAL EASTERN EUROPEAN
GAS EXCHANGE



CEEGEX OMC meeting

**2023.10.04.,
Budapest**

10





1. Highlights of recent market analyses
2. CEEREP, the new MGP index and its usability in gas contracts
3. Joule transition planned in Q4: next steps
4. OTC markets: introduction of MGP OTC Day-Ahead clearing
5. Concept of an international (hybrid) trading calendar on CEEGEX
6. HUDEX Gas regulatory updates and activity snapshot
7. Further plans

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Highlights of recent market analyses

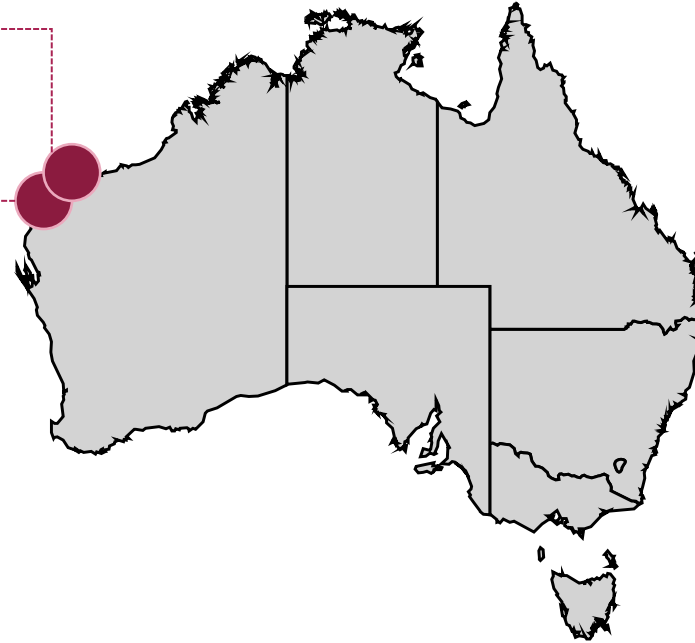


Gorgon plant

- » 3 LNG train
- » 180 TWh/y LNG facility
- » capacity to supply 80 GWh/d gas to Western Australia

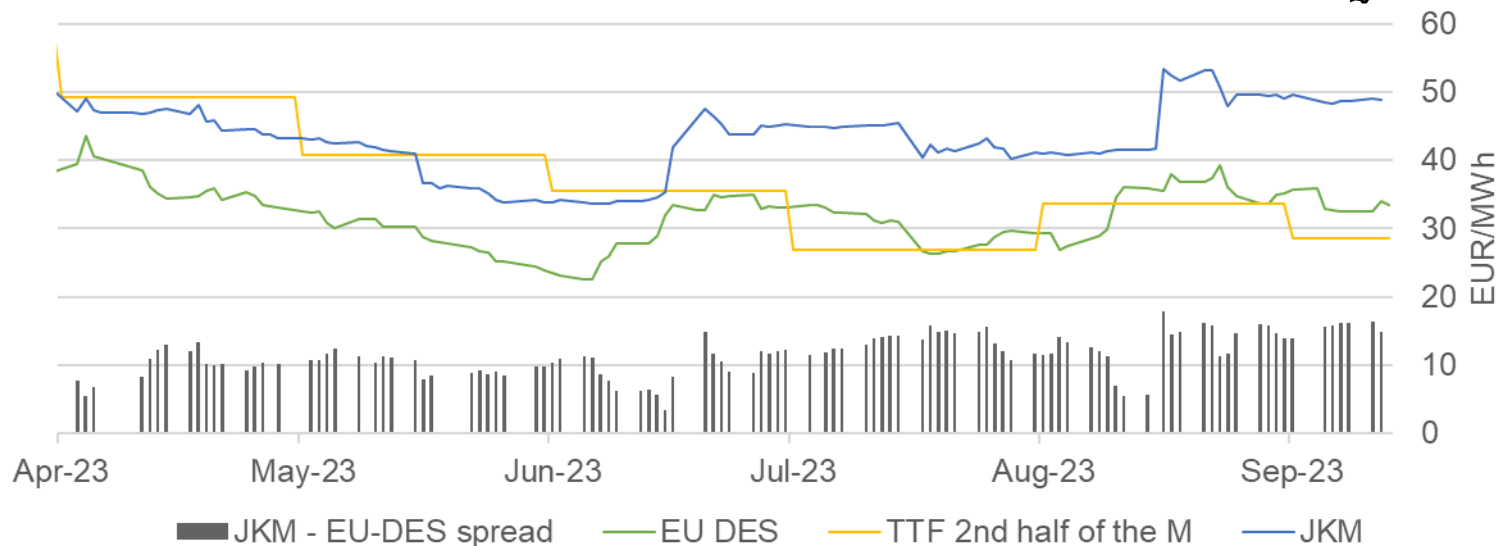
Wheatstone facility

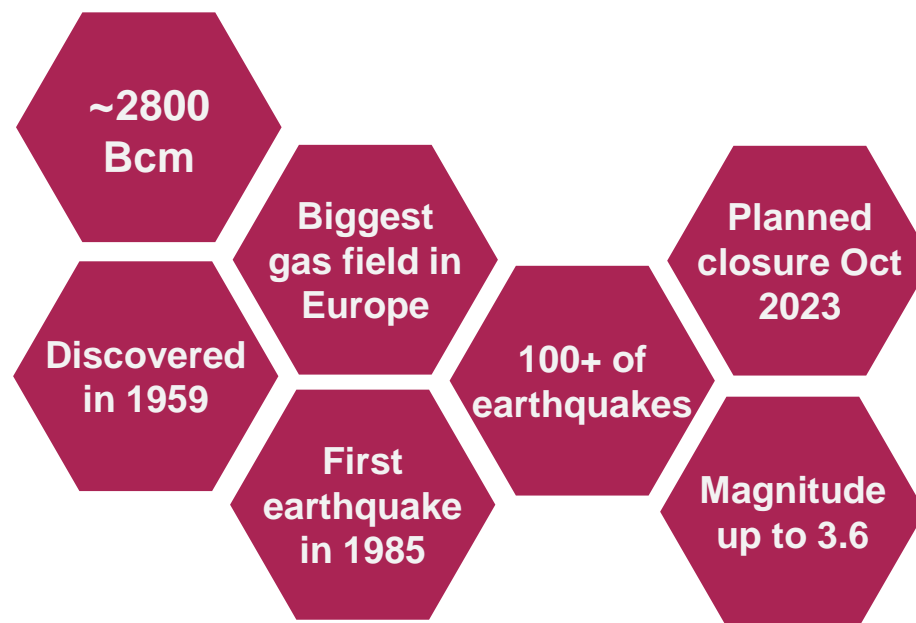
- » 2 LNG train
- » 100 TWh/y LNG facility



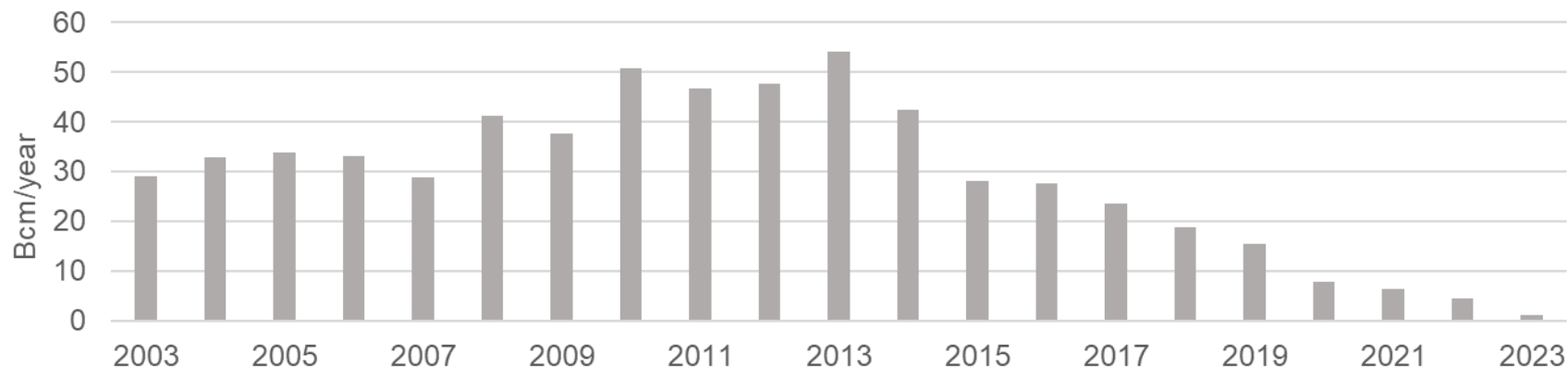
EXPERT OPINION:

- » **The strikes**, which began on 8 September at Wheatstone and Chevron's other Australian LNG facility in Gorgon, after negotiations between the company and the unions **over wages and working conditions broke down**.
- » Combined with the Gorgon plant, Chevron's Australian **LNG facilities account for over 5% of global supply** and sell predominantly to Asian markets.
- » **Dutch TTF gas prices were lower** on 14 September after a slight rise the previous day before the strike escalated. **By the end of July, the Asian premium over European gas prices started to widen**.
- » However, **if supply from Australia is reduced, Asian buyers could turn to other LNG suppliers**, competing with Europe, for the duration of strikes. This is spurring temporary spot price volatility in the European gas market.





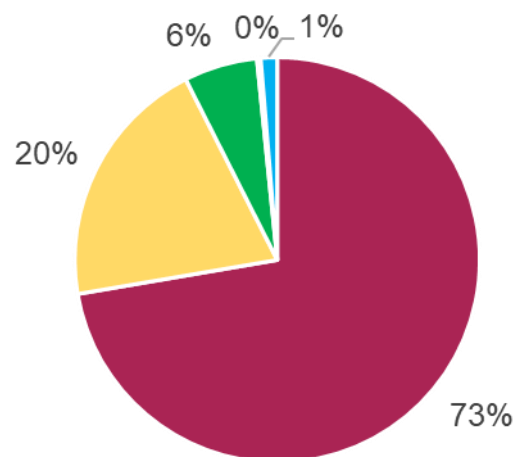
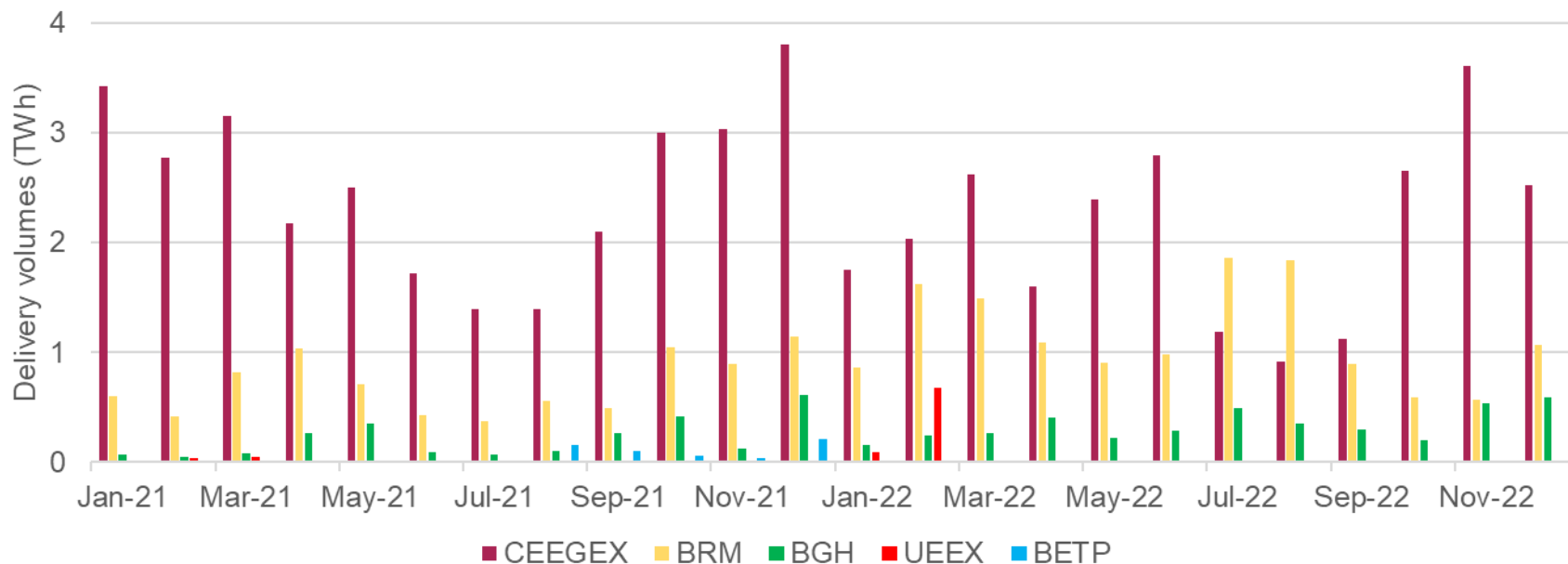
Gas extraction from Groningen



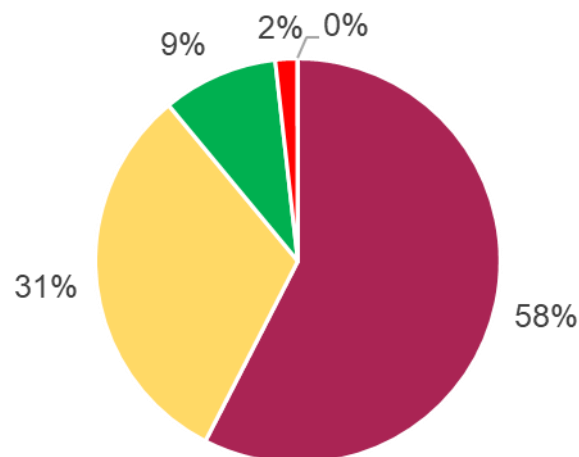
EXPERT OPINION:

- » Groningen gas field was discovered in 1959 and began production in 1963.
- » Groningen gas field is one of the world's largest natural gas fields.
- » In the last few years, the government wanted to cease gas extraction in the area for safety reasons, after decades of extraction has reduced pressure on the gas-bearing rocks below the surface, causing them to contract.
- » **Continuously decreasing production since 2013.**
- » Groningen gas field will **shut down permanently from 1 Oct 2023**
- » After the closure of Groningen gas field, about **450 bcm of gas will remain in the ground**, which is around one year's worth of gas demand in the EU.





2021



2022

EXPERT OPINION:

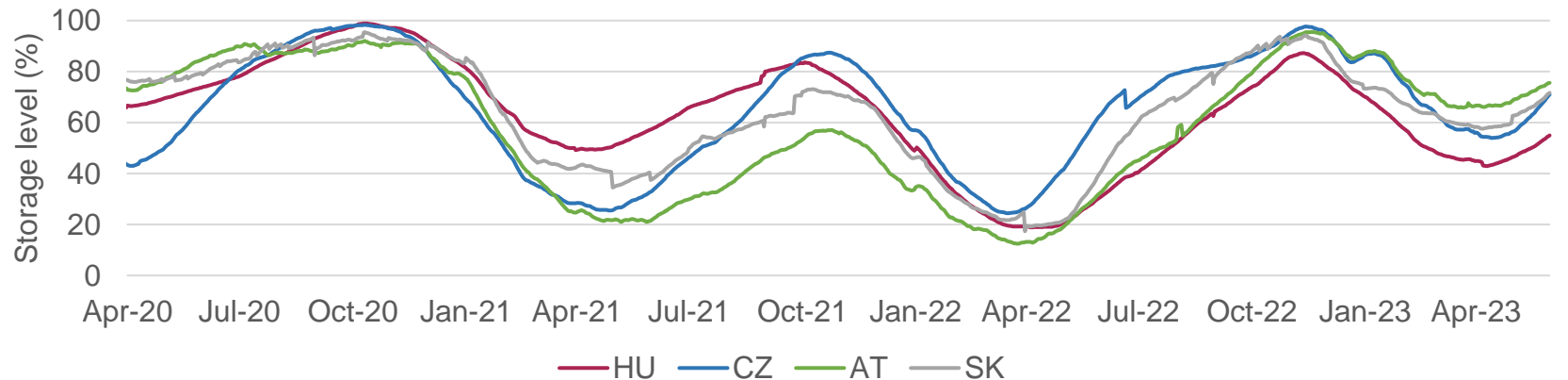
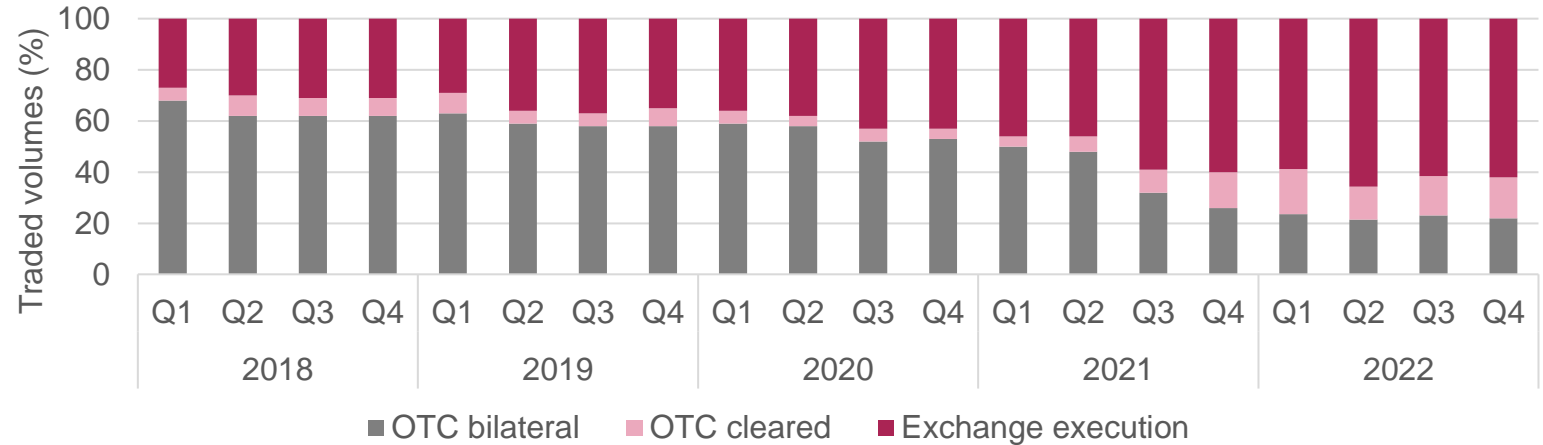
- » BETP was launched in May 2021. After a good start with increasing volumes, **trading has completely stopped** since last February.
- » BGH spot market showed a slow, but steady increase in volume last year compared to 2021.
- » After **record high delivery volumes in February 2022**, trading on the UEEEX spot market is insignificant.
- » BRM produced record volumes during summer 2022, but fell sharply in the last quarter. Their annual volume increased by **5 TWh** compared to the previous year.



EXPERT OPINION:

- » The 2021 energy crisis served as a catalyst for the reorganization of energy trading and as a result **more and more OTC trades was diverted to the exchanges**. During the turbulent period, in order to **avoid the increasing partner and non-performance risks**, the market participants turned to safer transaction forms, **despite the higher collateral requirements**.
- » **In May** however, the trend looks to be changing in CEE. According to ICIS data **AT, CZ, HU OTC trades have increased YoY**, except for SK.
- » **Collaterals have decreased to a lesser extent than gas prices**.
- » CEE liquidity recovered during the first quarter of 2023, as traders sought to replenish supplies.
- » As traditional gas routes have changed, **new participants might have entered CEE markets**. These participants might not be exchange members yet.

Historical share of traded volumes on the main European gas hubs*

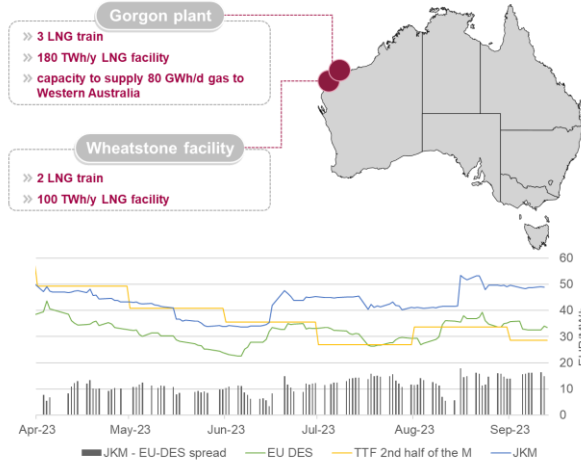


*TTF, THE, PEG, PSV, PVB, Zeebrugge, VTP, NBP



AUSTRALIAN LNG STRIKES

GAS MARKET



EXPERT OPINION:

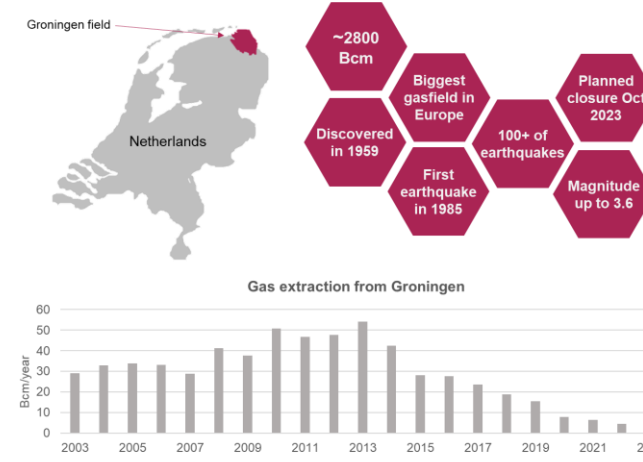
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- » However, if supply from Australia is reduced, Asian buyers could turn to other LNG suppliers, competing with Europe, for the duration of strikes. This is spurring temporary spot price volatility in the European gas market.

Sources: Chevron, Reuters



GRONINGEN GAS FIELD CLOSURE

GAS MARKET



EXPERT OPINION:

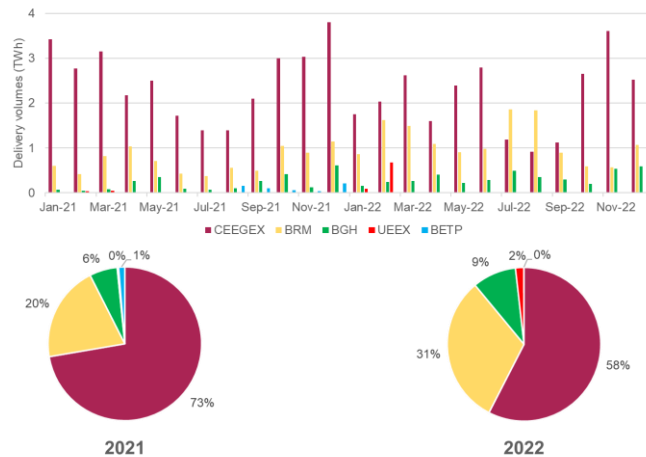
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Sources: Bloomberg, Reuters, Vg



EMERGING GAS HUBS & CX SPOT VOLUMES BY DELIVERY DAYS

GAS MARKET



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Sources: CEEGEX, BRM, BGH, UEEX, BETP

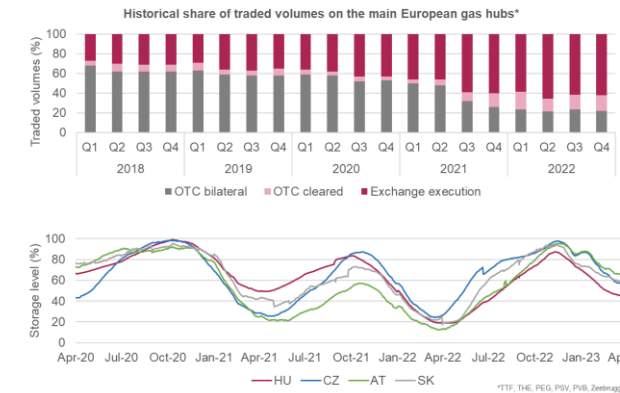


OTC LIQUIDITY CHANGES IN CEE

GAS MARKET

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Sources: EG, Trappat, ICIS



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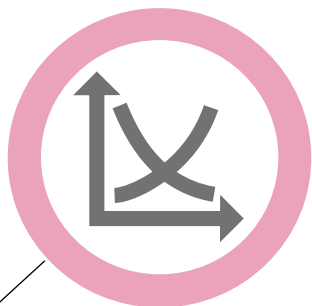


CEEREP,

the new MGP index



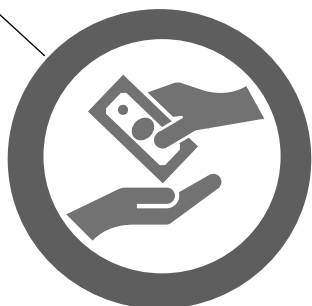
2023



A price index reflecting **market conditions in Hungary** at the end of the day.



It can be used directly in **wholesale contracts**.



It can be included directly in **consumer contracts**.



WHY ARE PRICE INDICES IMPORTANT?

- ✓ **Transparent:** widely available to the market participants
- ✓ **Compact:** one price summarizes an entire trading day
- ✓ **Reliable:** simple and objective calculation logic helps decision-making



WHAT IS CEEREP AND HOW IS IT CALCULATED?



- » A price index reflecting **market conditions in Hungary** at the end of the day
- » The calculation is based on **the orders and contracts** on CEEGEX
- » Follows **European best practices** (same parameters and algorithm)

WHAT CAN CEEREP BE USED FOR?



It can be used directly in **wholesale contracts**.



It can also be included directly in **consumer contracts**

WHERE IS CEEREP AVAILABLE?

It is published on CEEGEX website:

<https://ceegex.hu/en/market-data/daily-data>



Every weekday after 5:30 p.m.

| Day | Best Bid (EUR/MWh) | Best Ask (EUR/MWh) | Traded Volume (MWh) | Volume Weighted Average Price (EUR/MWh) | Reference Price (EUR/MWh) | CEEREP (EUR/MWh) | Relative Change (%) |
|------------|--------------------|--------------------|---------------------|---|---------------------------|------------------|---------------------|
| 2023-07-21 | 30,85 | 30,00 | 63,472 | 30,58 | 31,51 | 30,77 | -1,20% ↓ |
| 2023-07-20 | 30,70 | 28,95 | 92,736 | 29,72 | 29,67 | 30,40 | 2,63% ↑ |
| 2023-07-19 | 29,73 | 28,60 | 52,098 | 29,27 | 30,51 | 29,34 | 2,88% ↑ |

HUNGARIAN INDEX IN HUNGARIAN CONTRACTS

Pricing methods offered by suppliers:



Price indices traditionally available in Hungary:



! Price differences between countries (local events also affect gas prices)

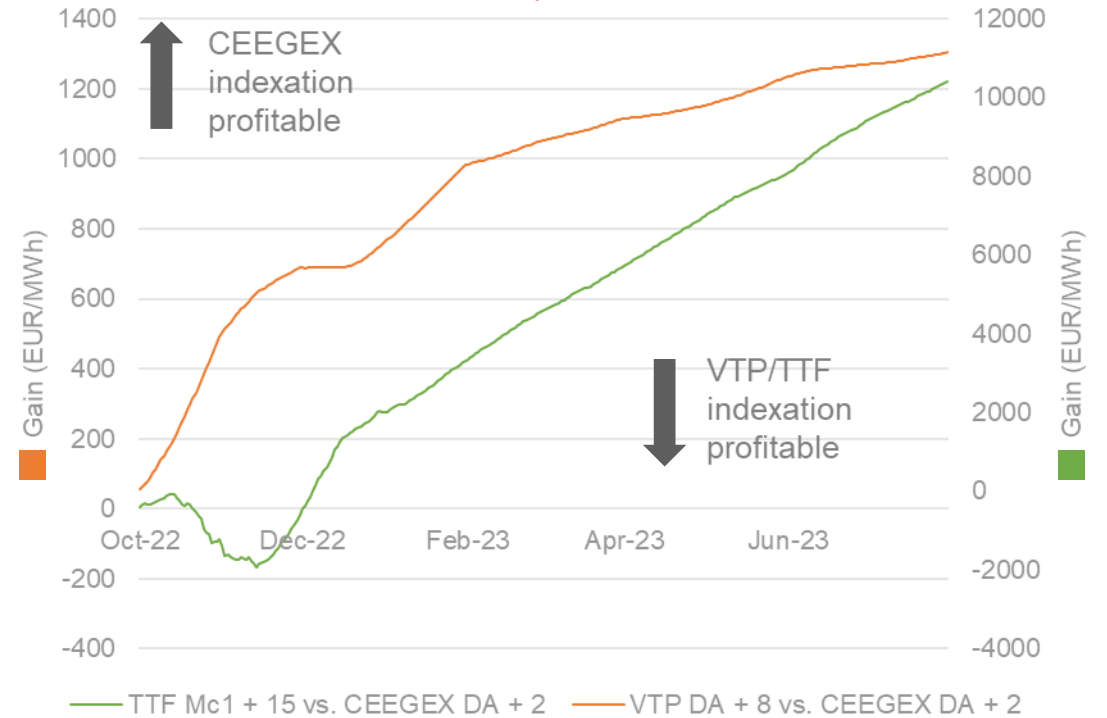
Recently price differences have become hectic and volatile, so indexing to **MGP (Hungarian Virtual Point)** has appeared.

- ✓ enables pricing that **reflects domestic supply and demand conditions**
- ✓ it is more beneficial for both the consumer and the trader
- ✓ the contract price can be separated from factors influencing foreign prices

If a gas contract includes a spot index, then CEEGEX prices are the best solution in Hungary instead of spot TTF or VTP.



Based on CEEGEX's internal analysis, in the first 10 months of '22/23 gas year the cost of a consumer was significantly more favorable with a contract linked to CEEGEX than with TTF or VTP indices.



CEEGEX encourages market participants to use the newly launched CEEREP index or the volume weighted average price (VWAP) in the bilateral contracts, especially towards consumers.

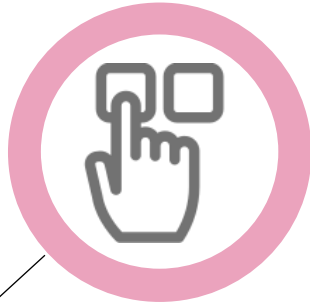
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Development plans





Switch to Trayport Joule

- Same **modern trading system** for every CEEGEX trader
- Single interface for all trading platforms
- Personalized trading screen, analyzed charts
- No additional costs for our traders, no extra contract with Trayport
- Many companies already use Trayport Joule



International trading calendar

- **Single calendar** on CEEGEX and Western markets
- Plan to follow the UK calendar
- Smooth transition from Hungarian to international holidays
- Possibility is planned to remain to trade Hungarian holidays too



Day-Ahead OTC trade registration

- **Easier bilateral contracts** for settlement and nomination
- No extra membership needed
- Simplifies the spot OTC deals, which currently happen at MGP
- Clearing house settlement eliminates counterparty risk
- Automatic nomination towards TSO



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HUDEX Gas

*regulatory updates and
activity snapshot*



EU regulatory body ACER on 13 January started publishing daily **LNG price assessments** for Northwest Europe (DES NWE) and Southern Europe (DES SE) based on data submitted by LNG market participants.

ACER on 1 February published its first daily **LNG reference price** (MCM RP) as part of the EU's new gas market correction mechanism (MCM).

- » ACER has set **the first daily reference LNG price** to be considered in automatically triggering an EU gas price cap **at 55.21 EUR/MWh**.
- » **ACER must publish this reference price on its website every weekday by 23:59 CET.**
- » The reference price is calculated by averaging several indices and price makers related to LNG. These include **LNG prices from Europe and Asia** and **ACER's newly launched LNG spot price assessment**, as well as **the NBP front-month settlement price**.

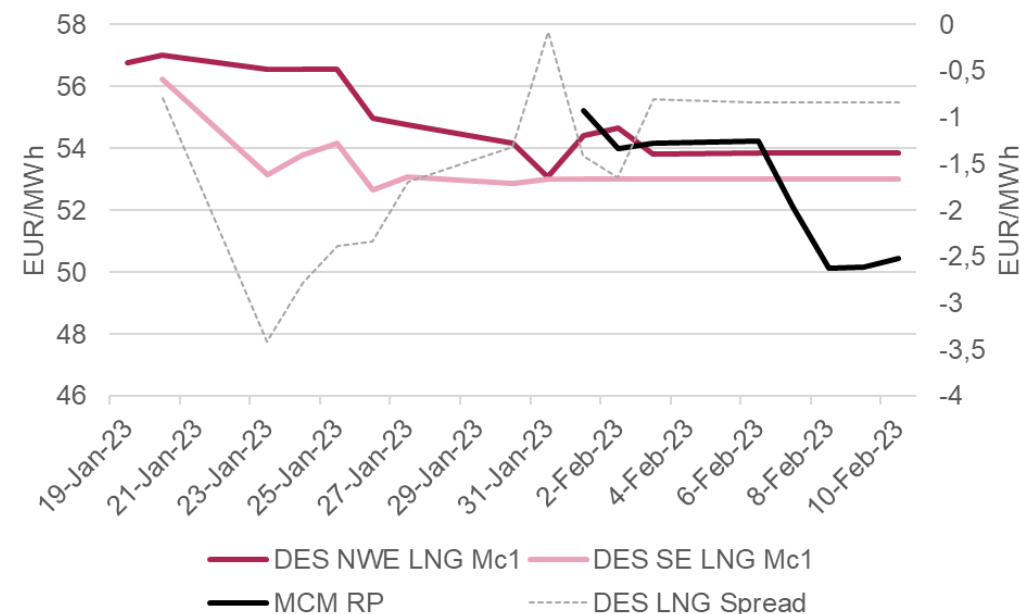
The MCM came into effect on 15 February after having been agreed by EU energy ministers in December.

- » The price cap **requires the TTF ICE settlement price to exceed 180 EUR/MWh for three consecutive working days** and for the spread between the TTF and the ACER reference price to exceed **35 EUR/MWh for those same days**.
- » If triggered, exchange trading on the **TTF hub would be limited to 35 EUR/MWh above reference price for at least 20 days**, or at 180 EUR/MWh if prices were to fall back below the threshold.
- » The market correction mechanism can be immediately suspended if it harms supply, flows or financial stability.

Gas prices have declined substantially since record highs in the summer of 2022:

- » ICIS assessments on 1 February showed **the TTF front month had fallen 82% from its peak on 26 August 2022.**
- » The contract has **been below the 180 EUR/MWh threshold since October.**

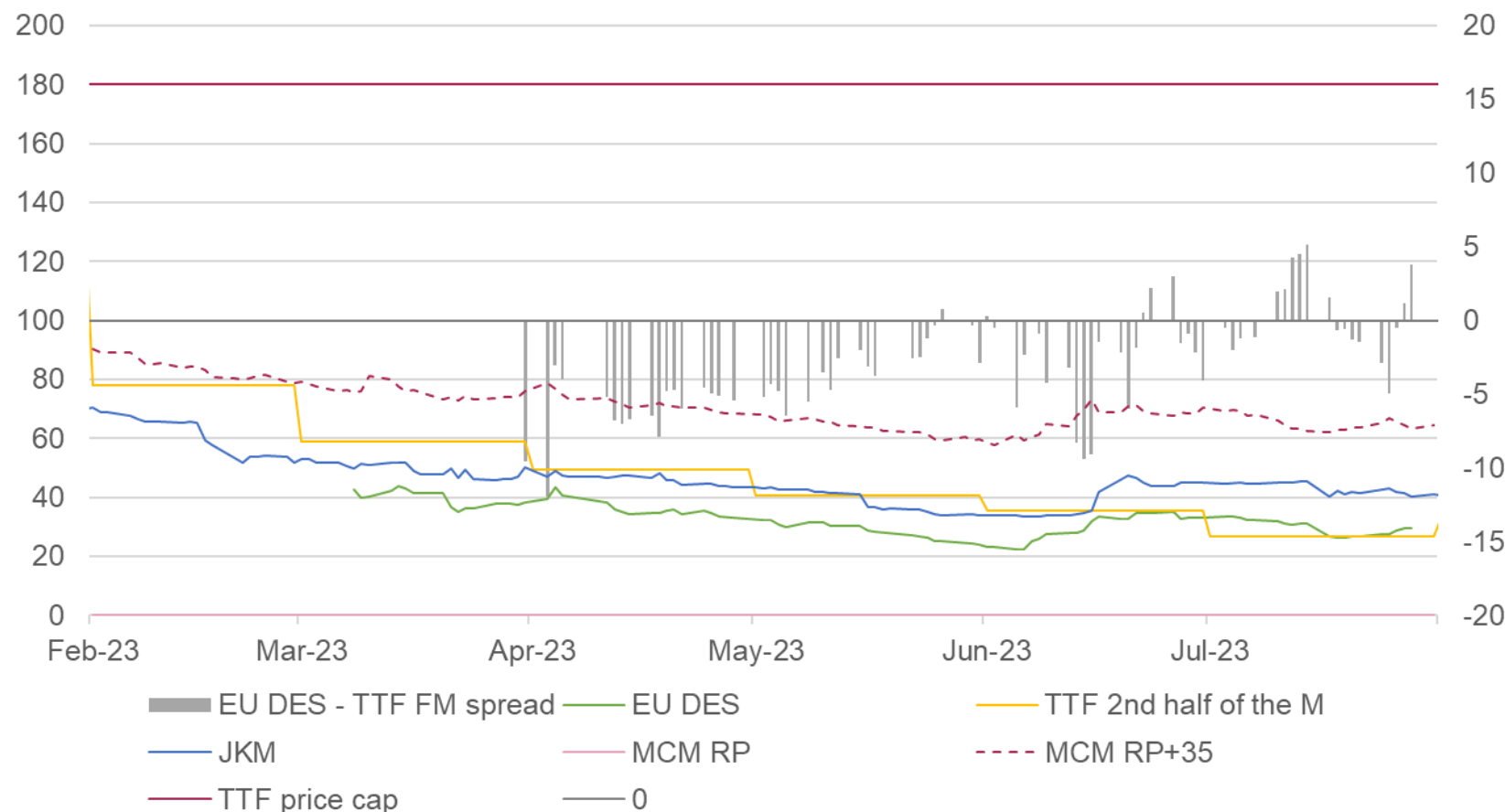
The ICE exchange is setting up a parallel option for trading Dutch TTF futures in London as an alternative for participants who still wish to trade after the EU cap on its Dutch ICE Endex platform is activated.

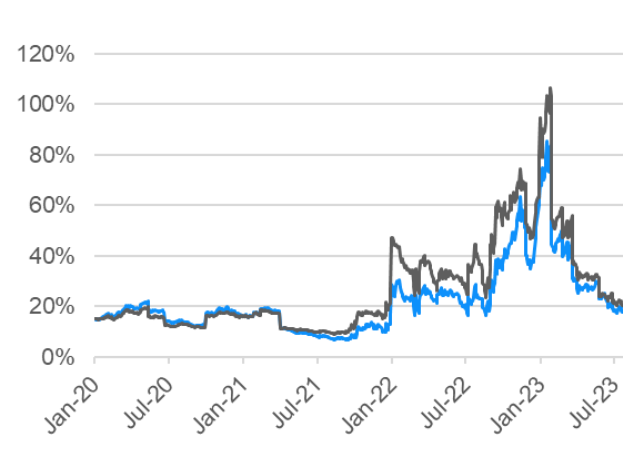
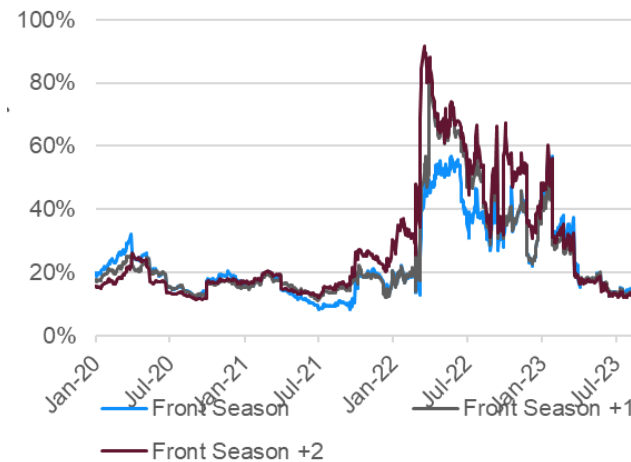
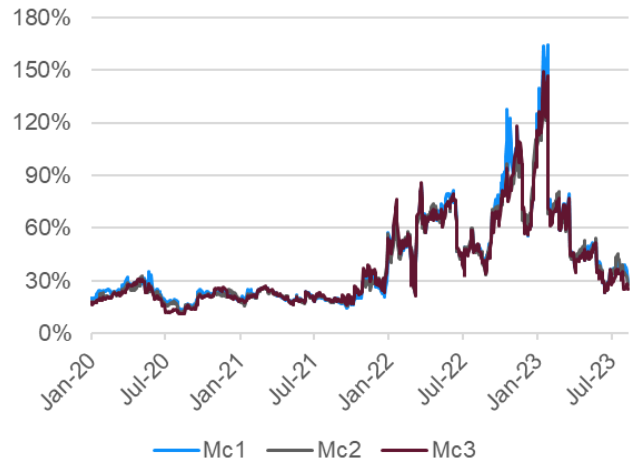


EXPERT OPINION:

- » ACER started publishing a set of new benchmarks in 2023:
 - **EU DES** = LNG price benchmark for EU (NWE & SE) based on data reported by market participants
 - **MCM RP** = benchmark price based on EU DES, JKM, HH. This is the first basis of the „price cap” activation.
 - **EU DES – TTF FM spread** = This is the second basis of the „price cap” activation.
- » The **dynamic bidding limit** is set at MCM RP + 35 EUR/MWh.
- » The **price cap is activated** if the TTF FM price is above 180 EUR/MWh & the MCM RP – TTF FM spread is above 35 EUR/MWh.
- » In present analysis TTF daily prices for the FM product are averaged according to the **methodology of calculating JKM** with the purpose of a more precise comparison.

LNG benchmarks vs Market Correction Mechanism

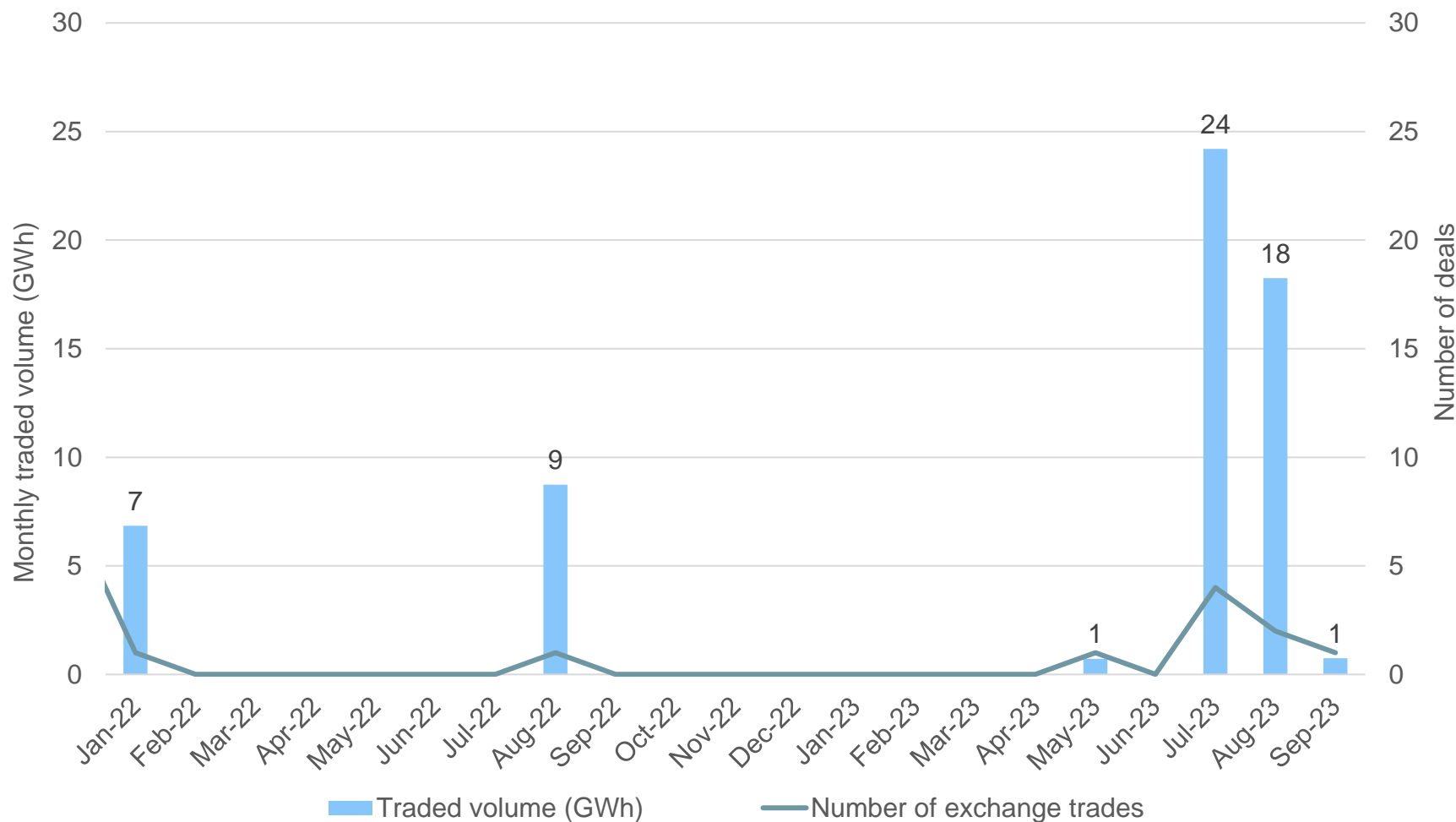




EXPERT OPINION:

- » Charts show the ratio of initial margin and the value of the given contract
- » From 28.12.2021 until 17.05.2023, **when the ratio spiked, the market was almost completely inactive.**
- » During this period there was no trade and orders were minimal.
- » Initial margin development highly correlate between different contracts of a given product and slightly correlate between differ products
- » **Initial margins are now back to pre-crisis level, which can support trading**





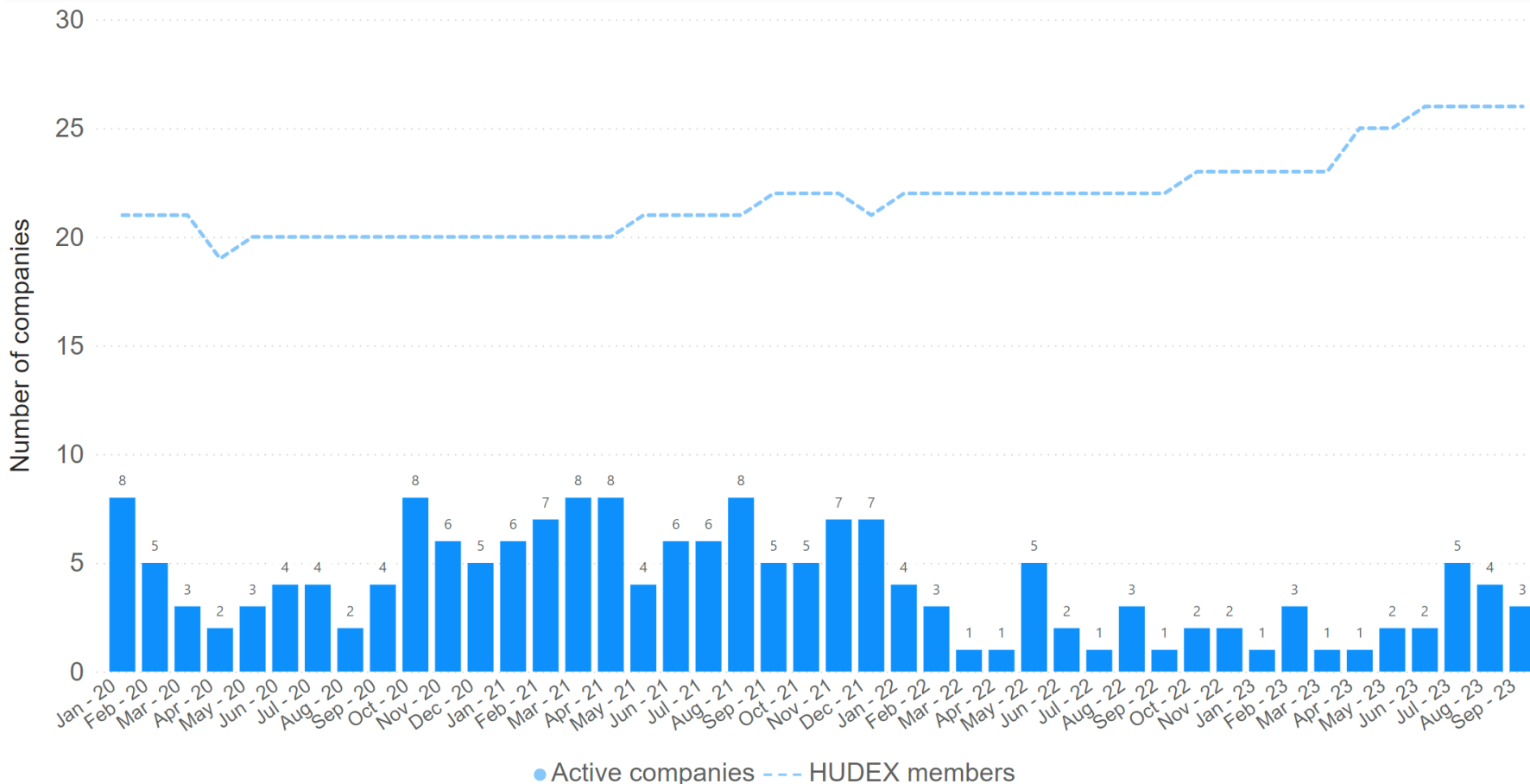
EXPERT OPINION:

- » After almost a year with no trade **HUDEX Gas traded volumes have returned.**
- » In 2021, the last year before the energy crises, HUDEX Gas recorded 1 TWh of deals.
- » **In 2023 traded volume** is still less than 100 GWh, however **three times higher than it was in 2022.**



EXPERT OPINION:

- » The number of **HUDEX Gas members started to grow after gas price rally ceased**, and now reached historical record 26.
- » Market activity can be measured by the number of active companies on screen, i.e., number of companies inserting orders.
- » **Bidding activity increased in the past couple of months** compared to 2022, however it's still lower compared to earlier years.
- » **HUDEX and CEEGEX is open to ideas to further facilitate liquidity on the futures market.**



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**Further
plans**



YOUR IDEAS:

- » Directly towards market operation via mo@ceegex.hu
- » Or contact your key account manager via membership@ceegex.hu



**Thank you for
attention!**

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