Global & Regional Market Analysis

Natural Gas

May 2022

24/06/2022

Source: Argus, Bloomberg, ICIS, IEA, Euractiv, Financial Times, Montel, NRGreport, Portfolio, Platts, Reuters, VG

Stories of the recent weeks

EU leaders agreed on cutting oil imports from Russia by 90% by the end of the year (except for pipeline imports). Ukraine's TSO declared force majeure on the transit of Russian gas entering the Ukrainian system at Sokhranivka on 10 May.

Gas Interconnection Poland–Lithuania (GIPL) commenced operations on 1 May.
Scheduled Norwegian maintenances & unplanned outages continued.
Russia halted gas flows to FI on 21 May and to NL and DK on 31 May as they refused to pay in rubles.

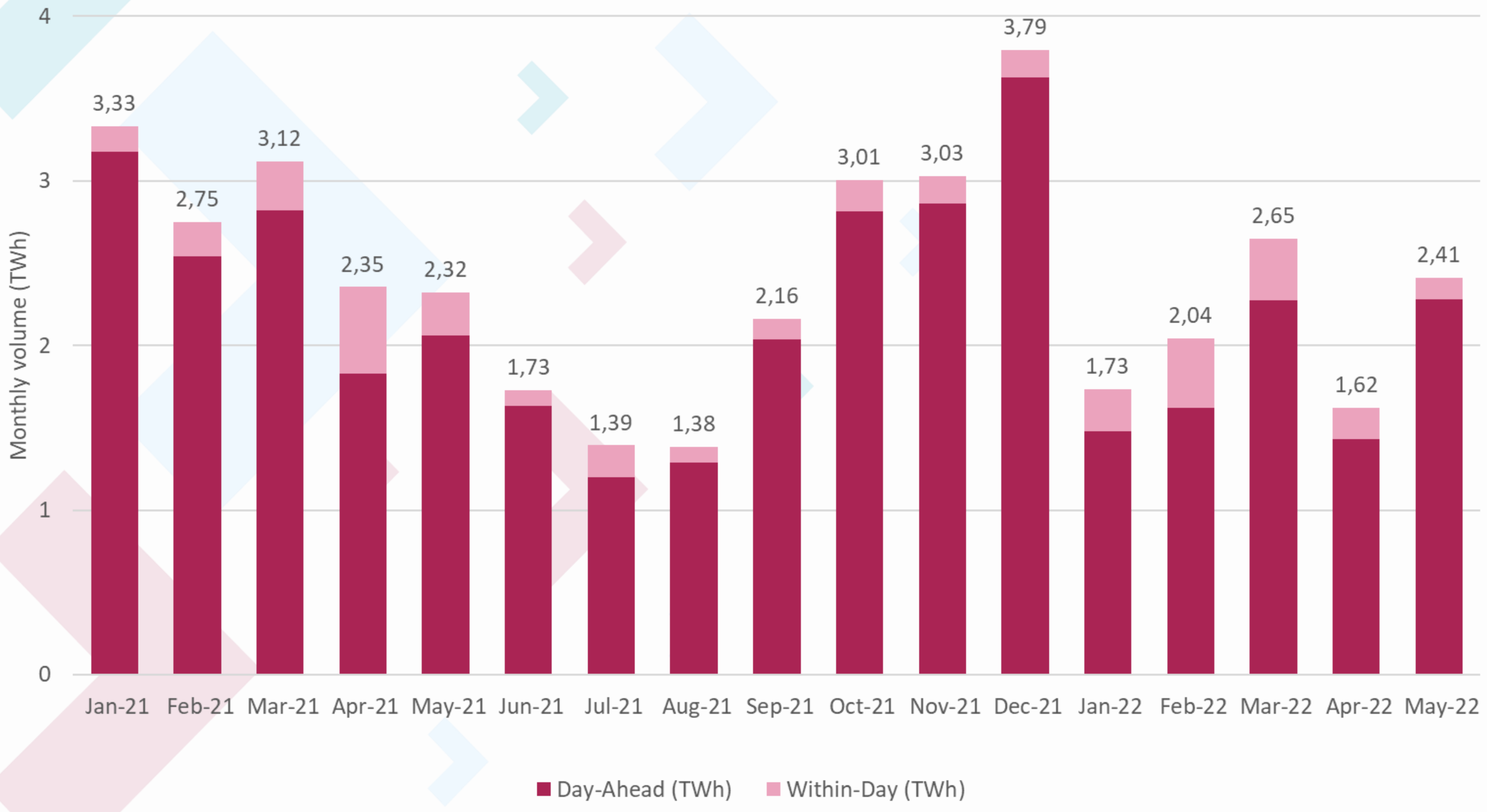
European injections hit record for the May period. EU agreed on 85% min. storage obligation, for AT, LV, HU, SK 35% of the country's annual gas consumption over the last 5 years.
Hungarian strategic stock levels were increased from 0.9bcm to 1.2bcm.

EC presented details of the REPowerEU Plan: the EU could limit the impact of high energy prices through joint gas purchases, potential use of windfall profits and a possible price cap if Russia cut gas supplies.

EC confirmed its previous advice that EU companies can pay in euro or dollar. According to Gazprom about half of their foreign clients have opened accounts at Gazprombank.
Hungarian government will impose windfall taxes, mostly on the financial and energy sectors.

CEEGEX monthly traded volumes

Source: CEEGEX

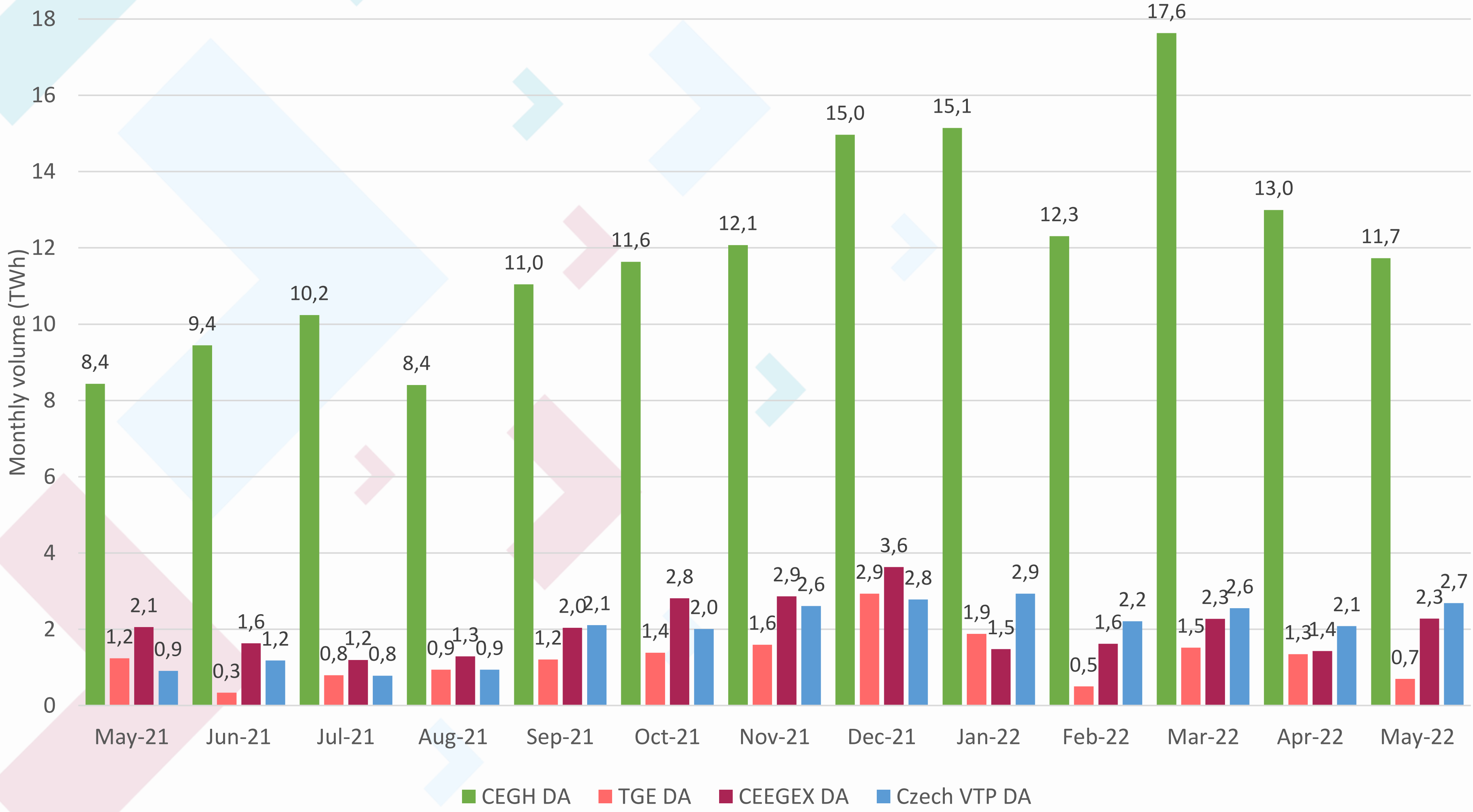


EXPERT OPINION:

- CEEGEX traded volumes during in May surpassed April's volumes.
- The main reason behind the decline in April was the strong uncertainty on the markets at the start of the injection season.
- Injections started to increase with almost a month delay in May.

Regional scope DA markets

Source: CEEGEX, CEGH

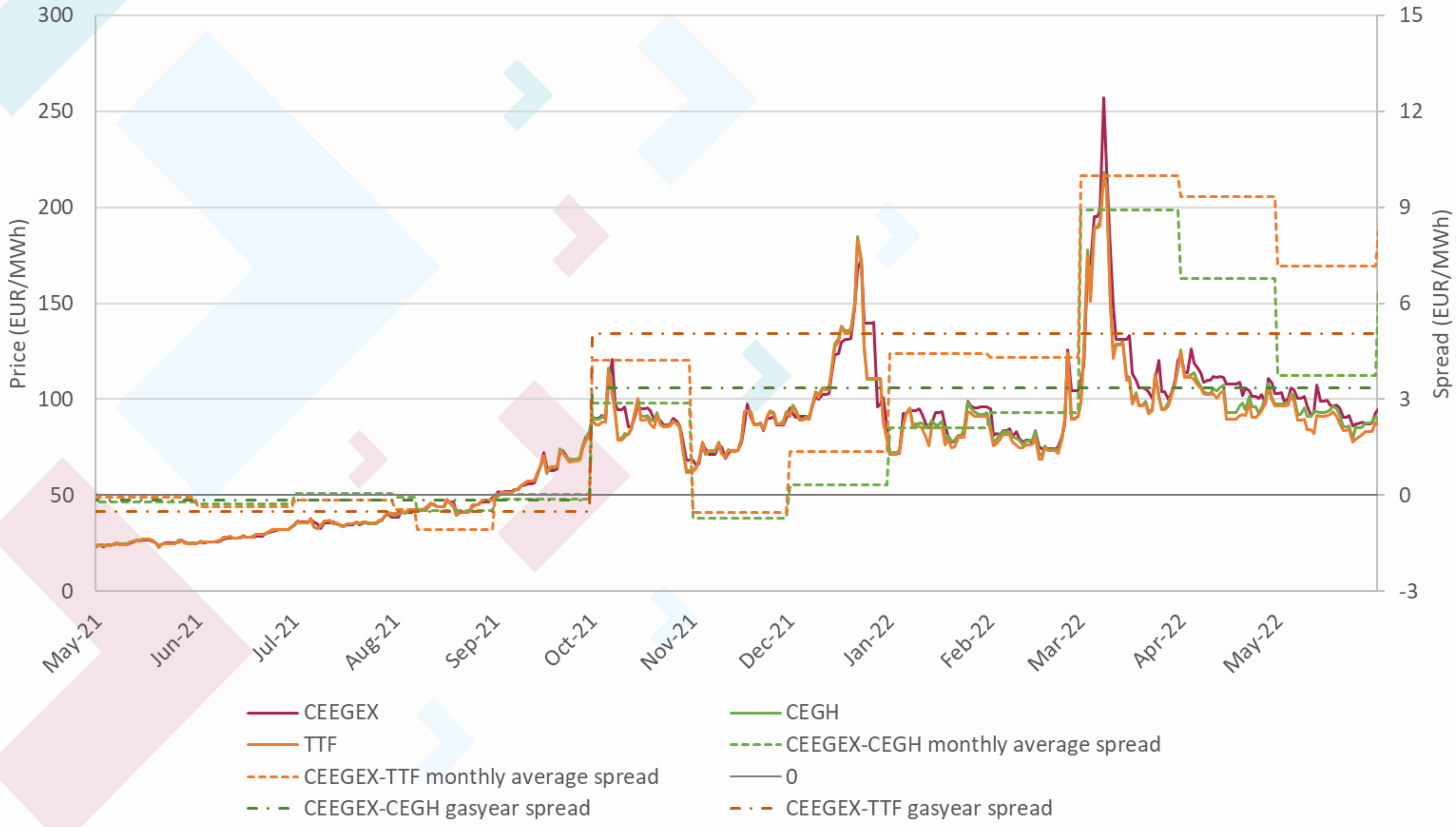


EXPERT OPINION:

- In April both CEEGEX and CEGH volumes decreased amid high uncertainty regarding injections.
- In May CEEGEX volumes surpassed April values as injections and imports ramped up.
- Liquidity on the Czech market also increased in line with higher injections.
- CEGH volumes remained lower in comparison to previous month.
- Polish volumes halved in May after Russia halted gas supplies by the end of April. Before the cut off Polish storages were already at 80%.

Regional prices and spreads

Source: CEEGEX, EEX

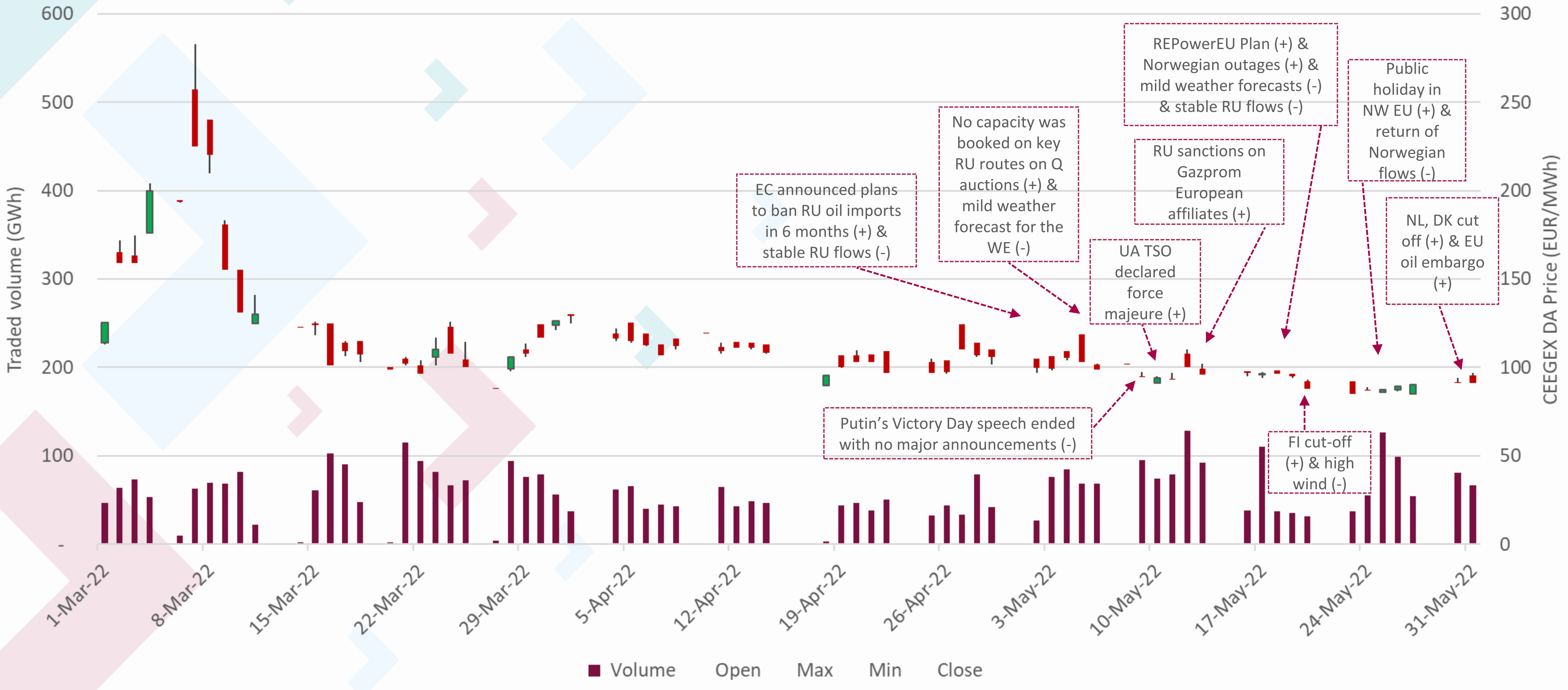


EXPERT OPINION:

- In May the spread gradually decreased in comparison to April, but it is still above the pre-war level.
- CEEGEX prices are still at a premium to regional benchmark exchanges.
- Most probably the main reason behind that is that CEE markets are more reliant on Russian pipeline gas supplies than NW European markets, where LNG cargoes arrive are at record high levels.

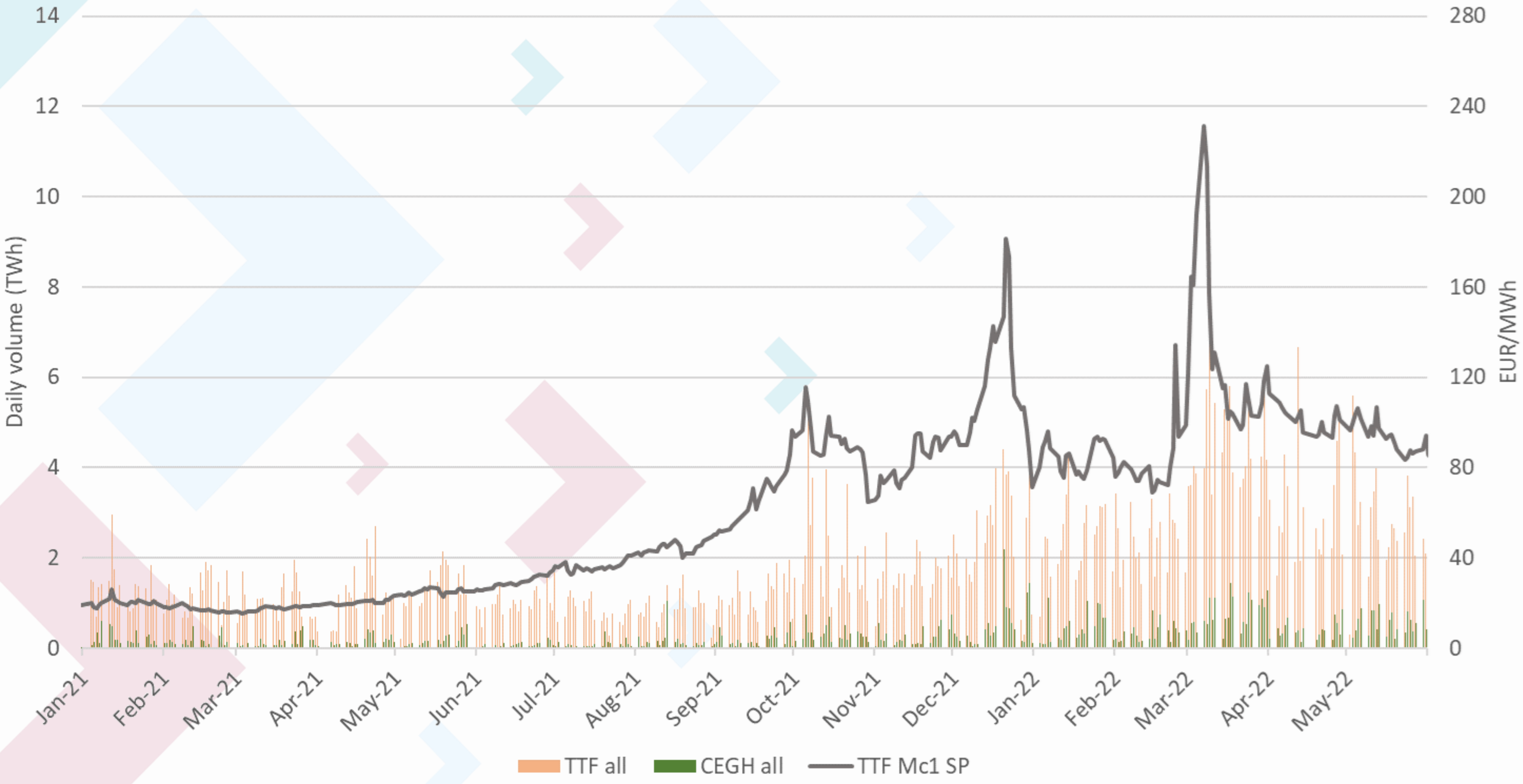
Japanese candles

Source: CEEGEX, ICIS



TTF and CEGH futures traded volumes

Source: Reuters, EEX



Expert opinion:

- Traded volume on TTF and CEGH futures market increased during the period of high price volatility.
- The price of TTF Mc1 has started the increasing period in October 2021.
- The traded volume increasing in the end of October 2021, due to the higher counterparty risk. More traders decided to trade on exchange markets.
- The high volatility and increasing prices drive the exchange traded volume increasing.

Countries affected by Russian gas cut-off

Source: Reuters, OIES, Platts

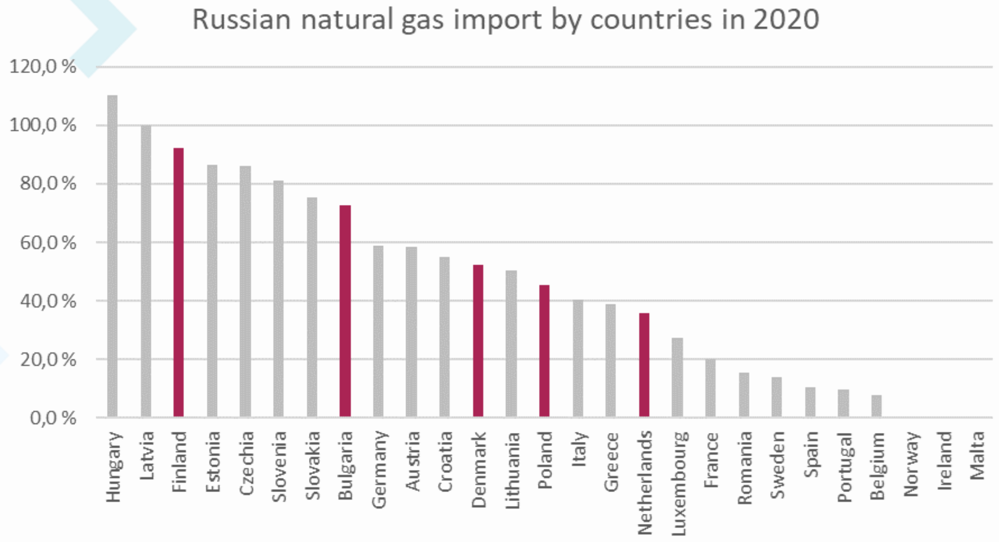
Finland:
- imported most of its gas around **1.9 bcm/y** from neighboring Russia but gas accounts for only about 5% of its annual energy consumption
- Gasum will supply natural gas to its customers from other sources through the Balticconnector pipeline
- Finland is connected to the European gas network via the Balticconnector, a Finnish-Estonian pipeline (LNG import terminals and better connections with western Europe)

Poland:
- Russia covered about half of Poland's gas needs, which comes via the Yamal pipeline around **10.2 bcm/y**
- gas storages were at 95% full which means 34.9 TWh
- it intends to replace Russian gas with imports from Norway via the Baltic Pipeline, also flows from Germany have increased
- GIPL (Gas Interconnection Poland-Lithuania) started commercial operation on 1 May 2022
- the country is expanding its LNG terminal at Swinoujscie, where LNG from the US and the Middle East is brought in, from 5 to 7.5 bcm.

Bulgaria:
- consumes about **3 bcm/y** of gas, of which over 90% was coming from Russia
- Bulgaria will receive US LNG supplies from June
- discussions with Azerbaijan to increase gas deliveries are taking place and the country is looking to agree LNG deals via terminals in Greece and Turkey

Denmark:
- bought **2 bcm/y** of natural gas from Gazprom in 2021
- it sources natural gas form the European gas market
- will increase natural gas production in the North Sea

Netherlands:
- Dutch gas storages were at 42.5% full which means 60.2 TWh
- Russia would have supplied **2 bcm** of gas in the next four months
- a joint German-Dutch gas extraction project in the North Sea will soon be launched

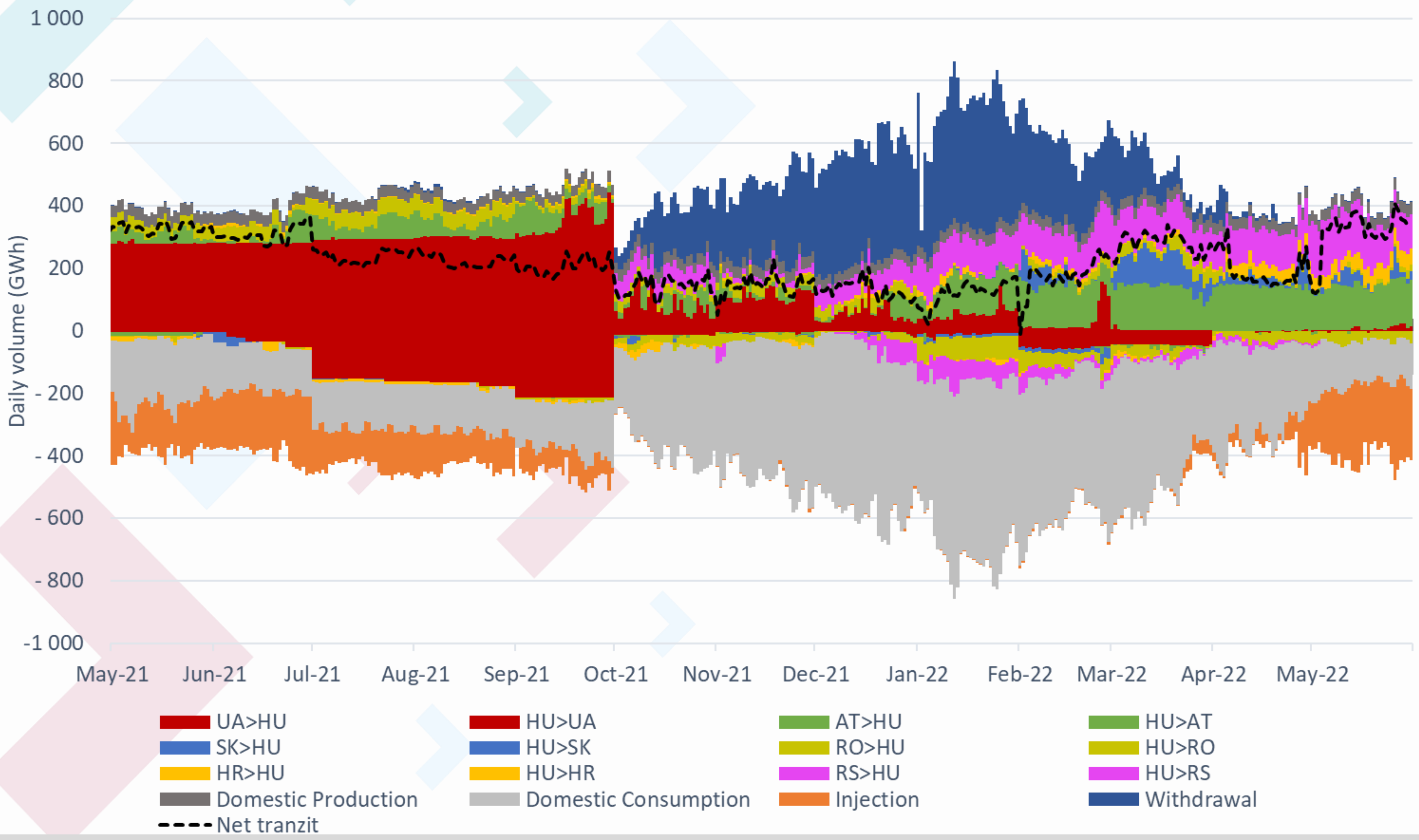


Expert opinion:

- Gazprom suspended gas supplies to Poland and Bulgaria on 27 April, then on 11 May Russia imposed sanctions on the Polish operator of the Yamal.
- Flows to Finland halted on 20 May.
- Gazprom deliveries to the Netherlands and Denmark stopped on 31 May.
- Europe will also increase coal mining in the next two years as a temporary measure.
- Norway to supply more gas to Europe this summer.

Hungarian gas market balance

Source: AGSI, FGSZ

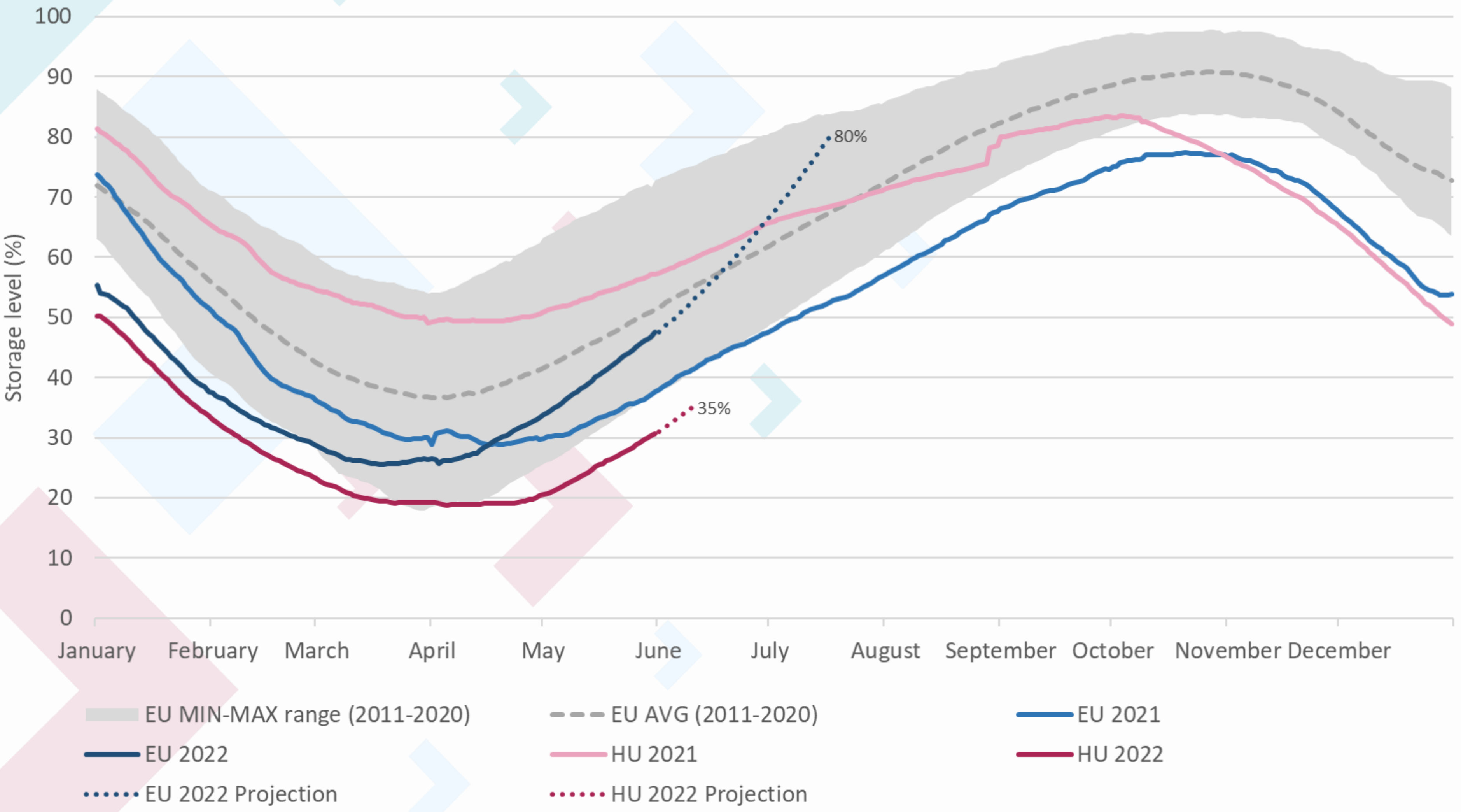


Expert opinion:

- Imports to Hungary increased in comparison to April, while exports continued to decline in May.
- Flows from Ukraine and Romania slightly increased at the end of May, but remained low.
- Flows from Austria remained stable, Croatian volumes are higher since April, while Serbian imports grew the most.
- Slovakian imports were hectic.
- Domestic consumption further decreased in line with higher temperatures.
- Injections ramped up in May.

Gas storage level in EU and HU

Source: AGSI, ICIS



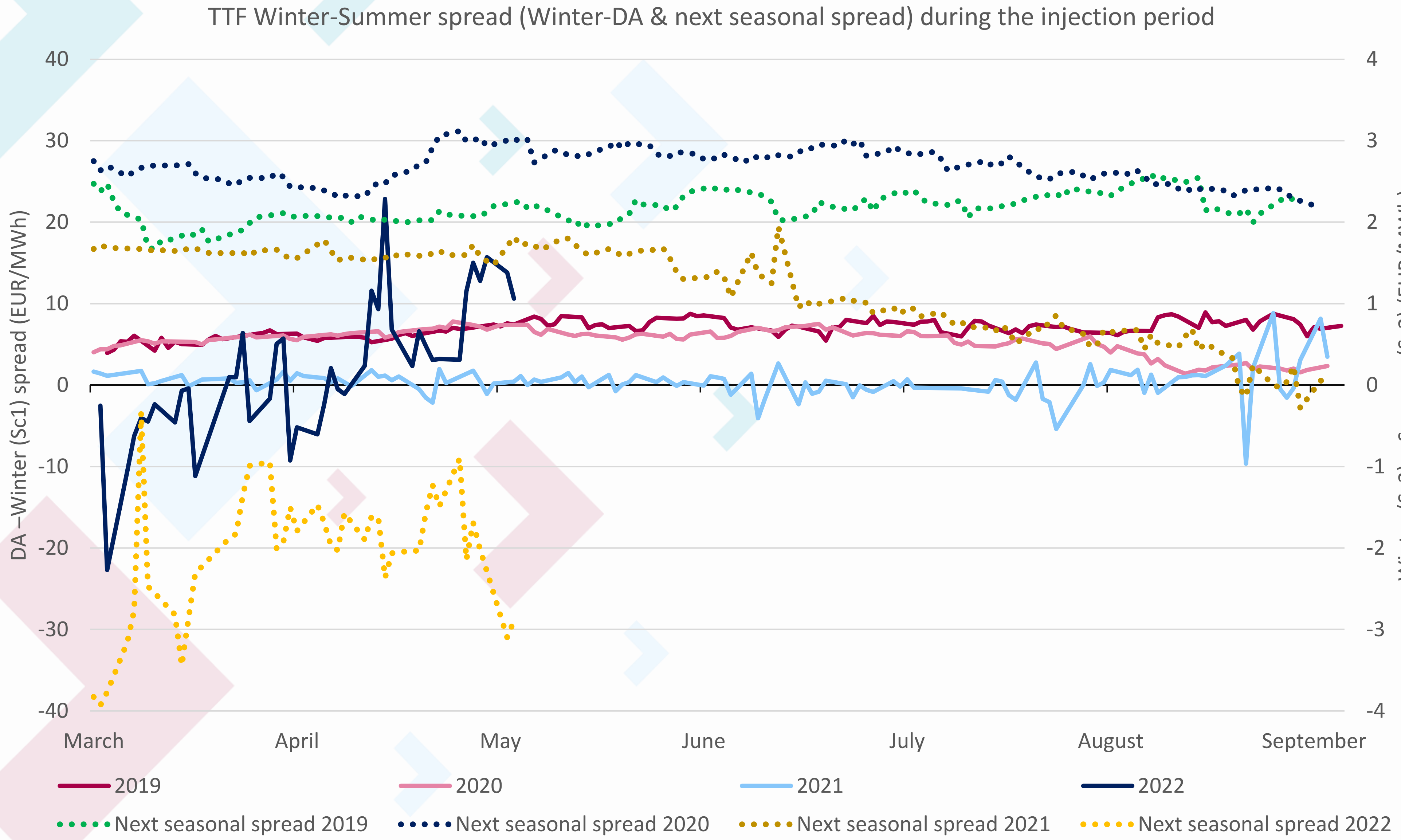
EXPERT OPINION:

- European aggregated storage levels (excluding Ukraine) returned to their historical min-max range between 2011-2020 and surpassed 2021 levels for this time of the year.
- Still, they are below their historical average values, but if the current rate of injections remain stable, it could be reached in June.
- Recent mild weather leading to weaker DA prices have enabled net injections in to kick off.
- If we extrapolate the injection trend of May, the target levels agreed by the EC would be reached in July.

At the end of February Ukrainian storage operator temporarily halted withdrawals and suspended publishing storage data on its website in response to the emergency situation.

Winter-Summer spread

Source: Refinitiv



Expert opinion:

- In May, the previous negative Winter-DA spreads were replaced by a very high positive spread
- While the Winter product continued to trade in the €90-100 range, the spot market saw a price drop and for the first time since the war the price went below €80
- The market remained volatile, but a positive spread could encourage storage and preparations for the winter of 2022
- At the same time, the 2023 winter-summer spread remains negative, indicating that the market expects a long, protracted price decline

Source: ICIS, GAZ-SYSTEM, IEA

Gas Interconnector Poland - Lithuania

508 km long

Direct Baltic access

Bidirectional

PL>LT - 2 bcm/y
LT>PL - 1.9 bcm/y

Access to several LNG terminals

EXPERT OPINION:

- On 1 May, the GIPL pipeline started to operate.
- GIPL has brought the previously isolated Baltic States directly into contact with non-Scandinavian EU countries.
- The 508 km long pipeline is capable of transporting gas in both directions, but the LT>PL direction is expected to dominate.
- Until October, LT>PL will have a capacity of 1.9 bcm/y and PL>LT 2 bcm/y. From October, the PL>LT direction is planned to be expanded to 2.4 bcm/y capacity.
- Current capacity can cover 10% of Poland's and 85% of Lithuania's annual gas demand.

The price of biogas and hydrogen

Source: EBA, IEA, Reuters, ING

Biogas
(45-85% methane)

~ 7-14 EUR

Biomethane

The typical biomethane productions costs range between **55-100 EUR/MWh** in Europe.

The total biomethane production in EU is around 30 TWh/year. The target is to reach 350 TWh/year by the end of 2030, which would cover 20% of the current Russian natural gas import.

Grey hydrogen ↔ **Blue hydrogen** ↔ **Green hydrogen**

The production cost of green hydrogen is around **180 EUR/MWh** today.

The emerging fossil fuel prices tripled the average cost of grey and blue hydrogen. This means that green hydrogen is now cheaper in some regions, including parts of Europe.

Regulatory updates & outlook - May

Sources: EC, ICIS, Lexology, IEA, OIES, Europex, Euractiv

REPowerEU Plan:

- The EC on 18 May presented the EU's strategy to phase-out its reliance on Russian gas. The REPowerEU strategy will **mobilize up to €300bn**. This will include up to €10bn to be dedicated to gas and LNG projects and up to €2bn to oil infrastructure in view of stopping the shipment of Russian oil. The rest of the funding will go into speeding up and scaling up the clean energy transition. It aims to do this with **three pillars**: **energy conservation; diversifying supplies; and quickly substituting fossil fuels by accelerating Europe's clean energy transition,** all while smartly combining investments and reforms.

Communication on short-term emergency measures:

- The EU can limit the impact of high energy prices through **joint gas purchases, potential use of windfall profits and a possible price cap if Russia cut gas supplies**, according to a plan presented by the EC. If the EU did have to declare a supply emergency, it might have to **cut gas demand** in less affected countries to free up supplies for more affected countries. This could require setting an **EU-wide maximum regulated gas price**, which could involve capping the price on European gas exchanges or **intervening in different parts of the gas value chain** for as long as the emergency lasted.

Minimum storage obligation:

- EU member states agreed that underground gas storage sites should be filled to **at least 80% of their capacity before the winter of 2022/2023** and to 90% before the following winter periods.
- **For AT, LV, HU, SK** the filling obligation would be limited to a volume of **35%** of the annual gas consumption of member states over the past 5 years in order to avoid a disproportionate impact on certain member states with significant storage capacity. **Member states without storage facilities** would have access to gas storage reserves in other member states.
- All **storage facility operators** should be **certified**.

OIES Short- and Medium-term outlook:

1. Gas prices are so high that there is **still a large incentive to switch to coal,** forward curves show a big margin for gas over coal through 2023.
2. In May **Russian flows decreased as DA prices fell below the FMI.**
3. **For the rest of summer**, the cut-offs to PL, BG and FI, the Russian sanctions against Gazprom's former subsidiaries and the cessation of Russian gas flows at Sokhranivka (if Gazprom does not raise its capacity booking at Sudzha) will all **take Russian volumes off the European market, and cause buyers to seek volumes elsewhere.***
4. In the first 4 months of 2022, implied European gas consumption totaled 185bcm (-11.7%) as high prices weighted on gas demand. European production continued its decline (Denmark, the Netherlands). Pipeline imports in January-April were down YoY, and this was primarily due to lower flows from Russia. In sharp contrast LNG imports surged. **Overall, the European market remains finely balanced on the supply side.**
5. To meet the target of European storage being 80% full by 1 November, **Europe will need to inject 37.5 bcm between 18 May and 1 November.** The ability of Europe to meet its storage targets will **depend to a significant extent on that Russian supply**.
6. In 2022, it is expected that available **LNG capacity could increase by some 40 bcm** this year. **For Europe to reach the almost 40 bcm increase in LNG imports, this also requires weak demand elsewhere,** especially Asia. China remains a big uncertainty.

*At the time of writing the paper, NL and DK cut off had not taken place.