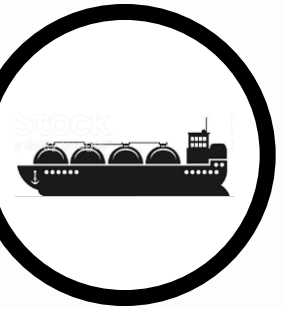
Global & Regional Market Analysis

Natural Gas

August 2022

21/09/2022



Source: Argus, Auxilione, Bloomberg, CEENERGY News, ICIS, IEA, Euractiv, Financial Times, G7, Montel, NRGreport, Portfolio, Platts, Reuters

Stories of the recent weeks

Russian flows dropped to 0% on the NS1 during planned maintenance 11-21 July, after the works flows returned to 40% of capacity. Due to turbine issues and maintenance NS1 flows dropped to 20% on 27 July, then on 31 August to 0%.

Record high gas prices in the 2nd half of August due to: 3-day maintenance of NS1, Europe's energy supply was squeezed by severe drought, muted wind power generation and low river levels in Germany or low nuclear power availability in France.

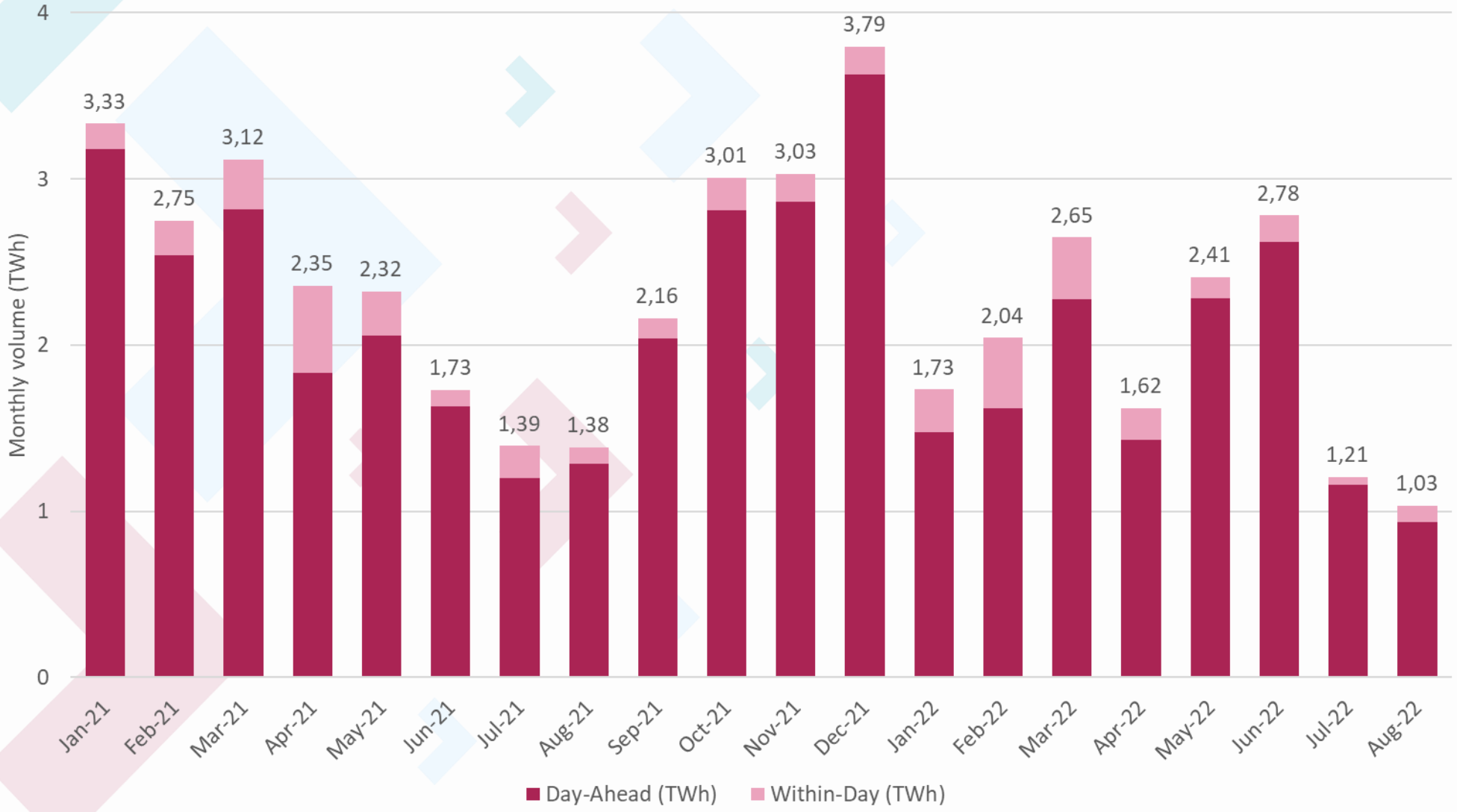
Until the end of August 2.6mcm/d of extra volume arrived to Hungary via the Turkish Stream pipeline. On 31 August Hungary has signed a new deal with Russia, whereby Gazprom will deliver up to 5.8 mcm/d more natural gas than in the previous long-term contract.

On 29 August EC announced emergency energy market interventions for September.
Uniper applied for government support to alleviate financial trouble caused by supply cuts.
Germany announced a cut in VAT on gas sales from 19% to 7% until March 2024.

The exit capacity from RO to HU is to increase from 50GWh/day to 73GWh/day from October subject to regulator’s approval.
PL-SK gas interconnector connects North-South Gas Corridor from October.

CEEGEX monthly traded volumes

Source: CEEGEX

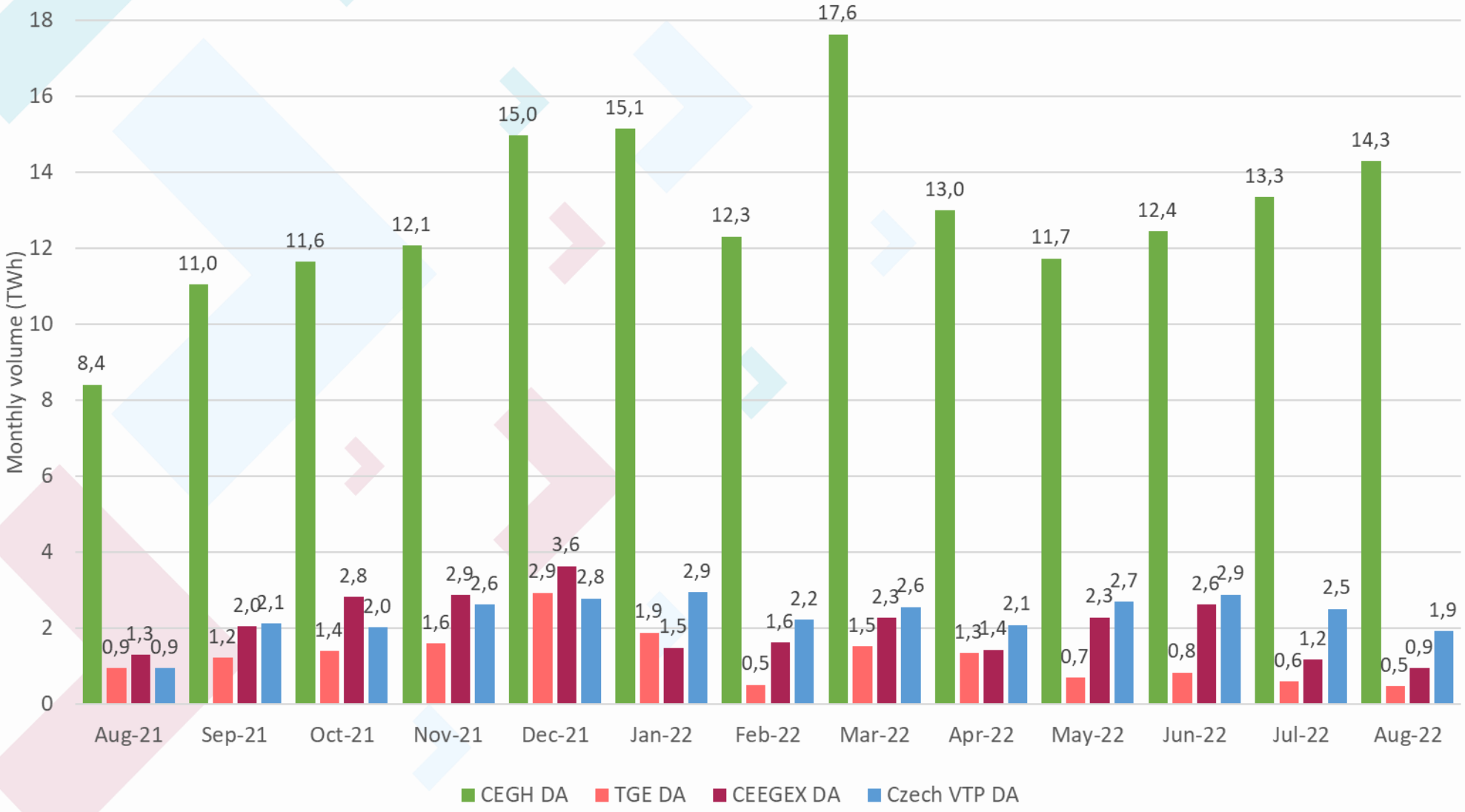


EXPERT OPINION:

- CEEGEX traded volumes further decreased in August.
- Seasonally lower demand combined with record high prices and margin requirements resulted in moderated trading activity.
- Higher TTF FM-CX spread might have incentivized imports of LTC volumes instead of spot trading.
- This assumption is supported by higher imports to HU and continuous injections in August.

Regional scope DA markets

Source: CEEGEX, CEGH

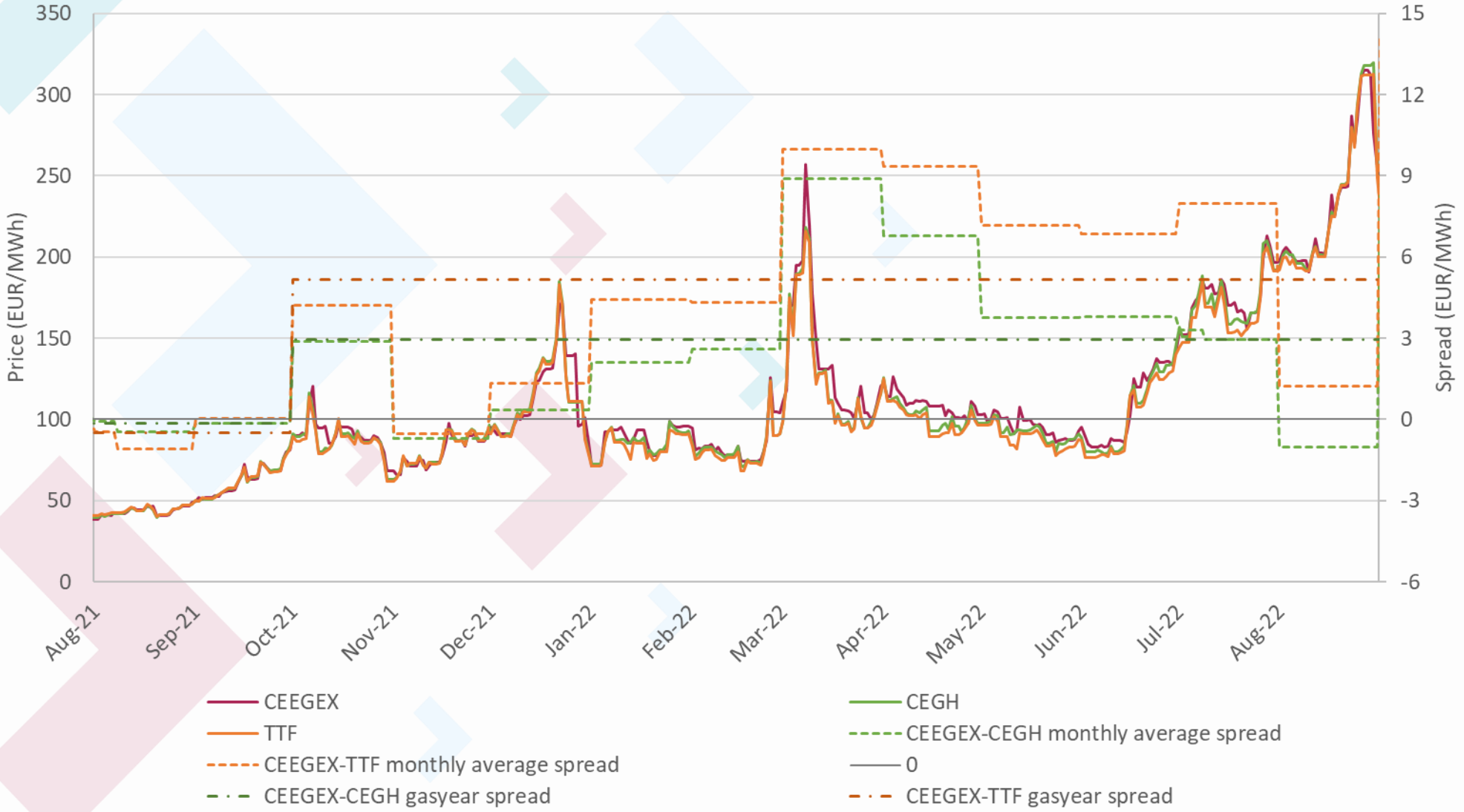


EXPERT OPINION:

- In August a similar decrease in volumes was observable on other regional markets, except for CEGH.
- Austria has to inject 80% of their storage capacity until November. This might have incentivized spot trading despite of the higher TTF FM-CEGH spread.
- Hungary, Poland and the Czech Republic had already reached the target level by the end of August.
- (See separate analysis on storage level targets later).

Regional prices and spreads

Source: CEEGEX, EEX, IEA

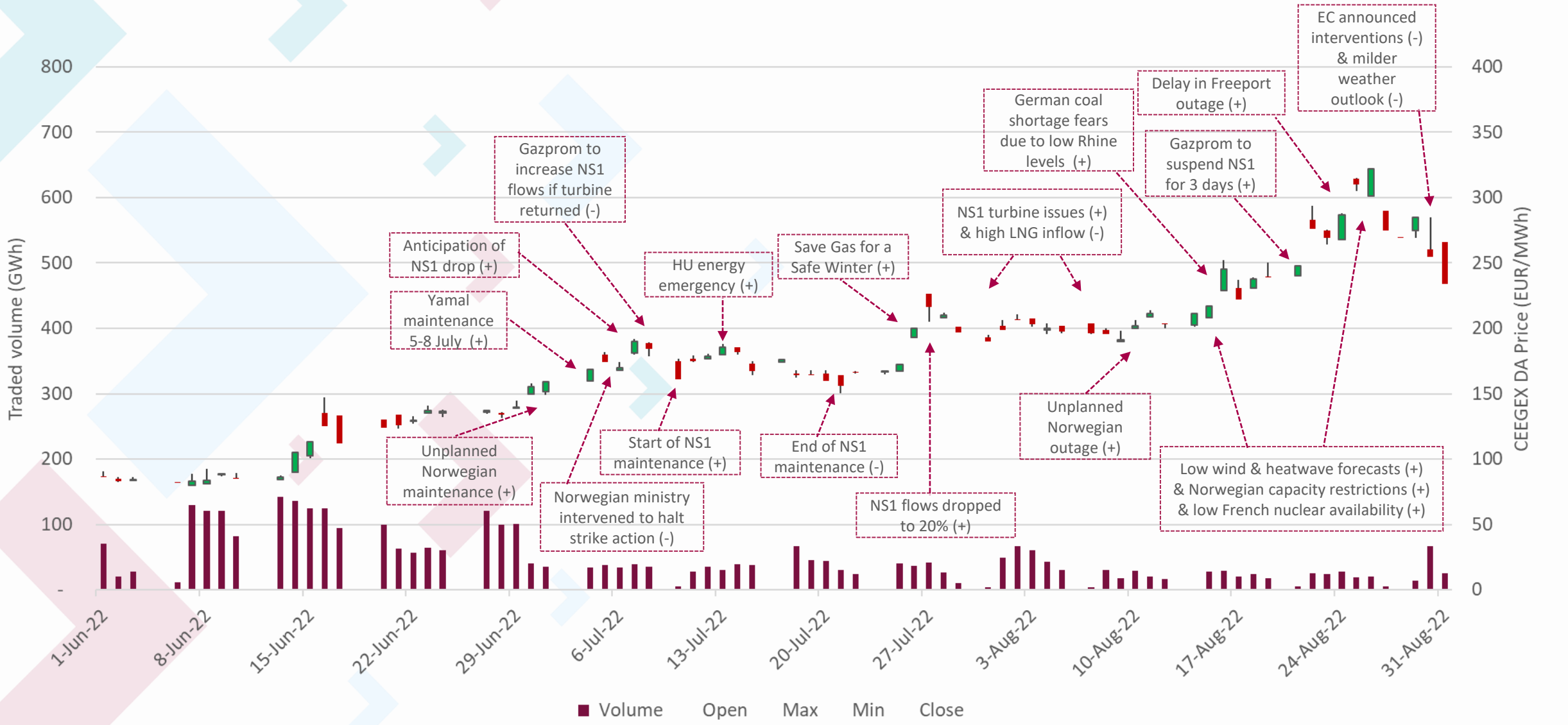


EXPERT OPINION:

- In August the spread returned to the negative territory.
- Volatility remained strong on regional exchanges in August.
- In the second half of August several factors contributed to record high gas prices.
- The EC announcement of interventions weighed on gas markets and prices dropped by ~20% by the very end of August.

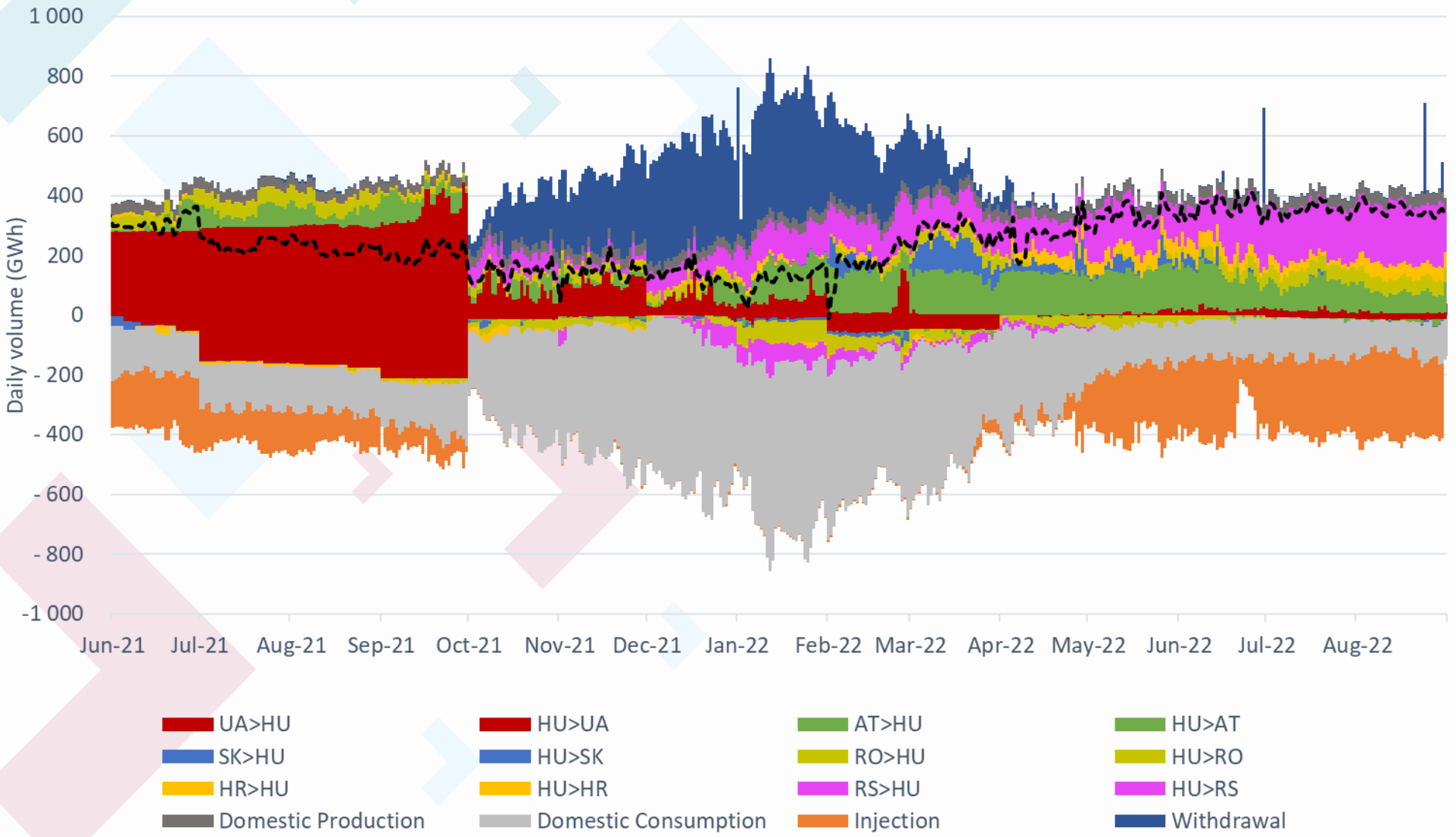
Japanese candles – last 3 months

Source: CEEGEX, ICIS



Hungarian gas market balance

Source: AGSI, FGSZ

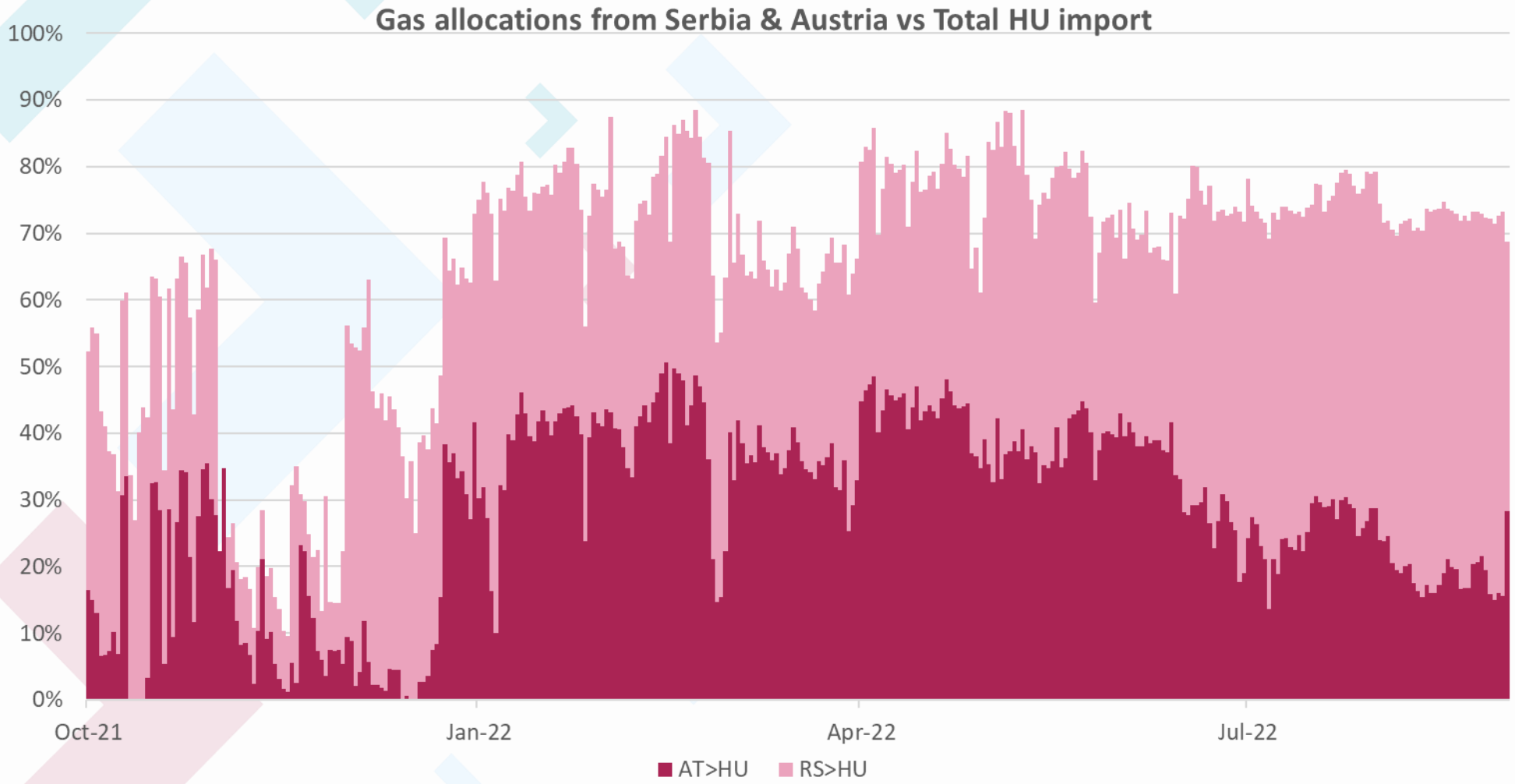


EXPERT OPINION:

- Domestic consumption remained on similar level, so far no demand destruction was noted despite the announcement of higher residential energy prices or voluntary savings. Injections were stable during the summer period.
- Both imports and exports increased in August.
- Flows from Serbia are becoming the dominant import route. Croatian imports increased on the expense of Austrian flows. Slovakian imports disappeared. Romanian imports were high. There were some Ukrainian imports and exports, but insignificant in comparison to historical flows before October.

New Hungarian-Russian gas deal

Source: AGSI, FGSZ

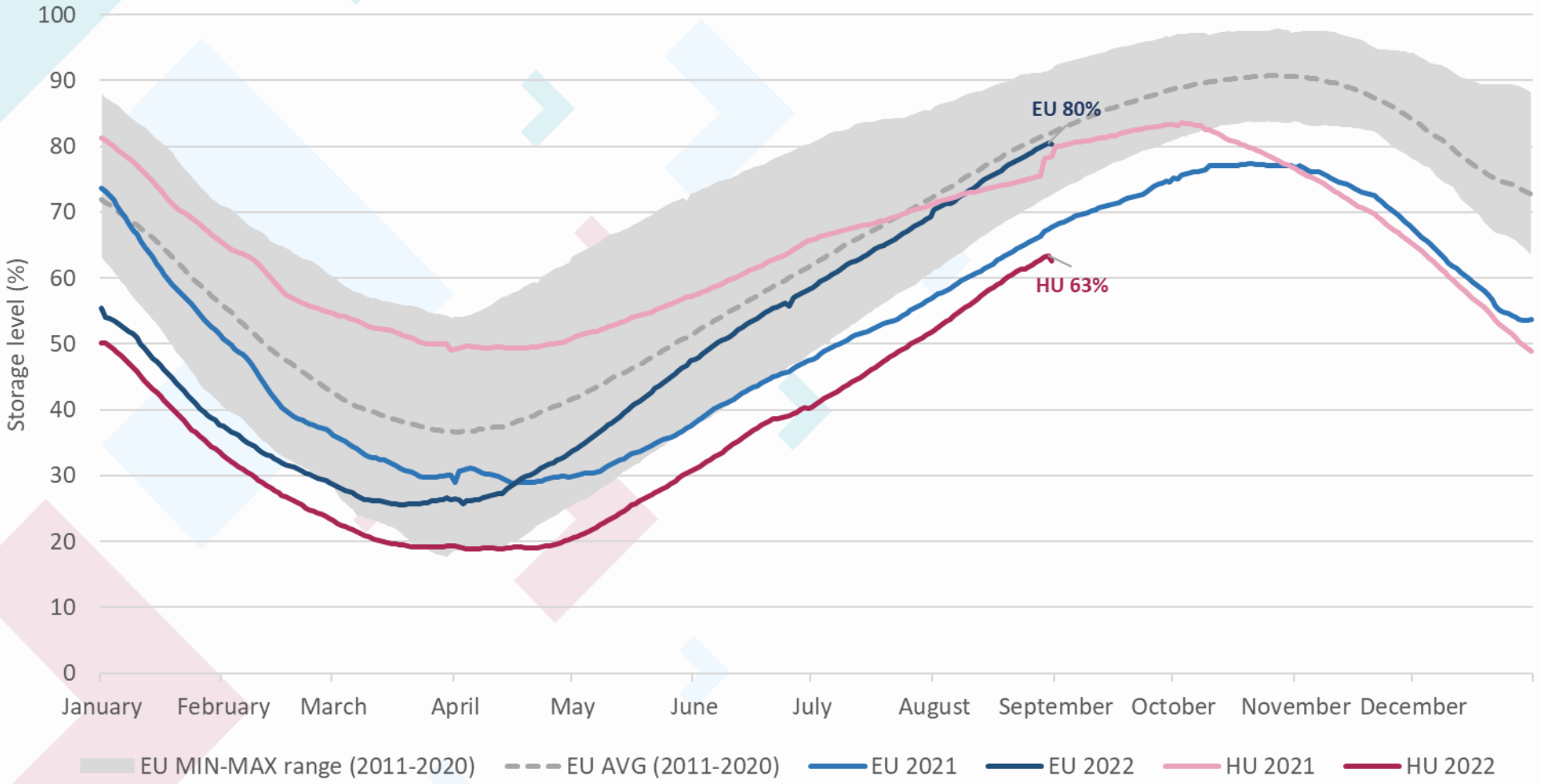


EXPERT OPINION:

- Under the RU-HU gas deal from last Sept 4.5bcm/y would be supplied to HU in the upcoming 10+5 years, 3.5bcm via RS and 1bcm via AT.
- Until the end of Aug 2.6mcm/d of extra volume arrived to Hungary via the Turkish Stream pipeline.
- On 31 Aug Hungary has signed a new deal with Russia, whereby Gazprom will deliver up to 5.8 mcm/d more natural gas than in the previous long-term contract in Sept-Oct respectively.
- On overall, Hungarian imports have increased in Aug, Serbian imports were higher, while Austrian imports lowered.

Gas storage level in EU and HU

Source: AGSI, ICIS, MEKH



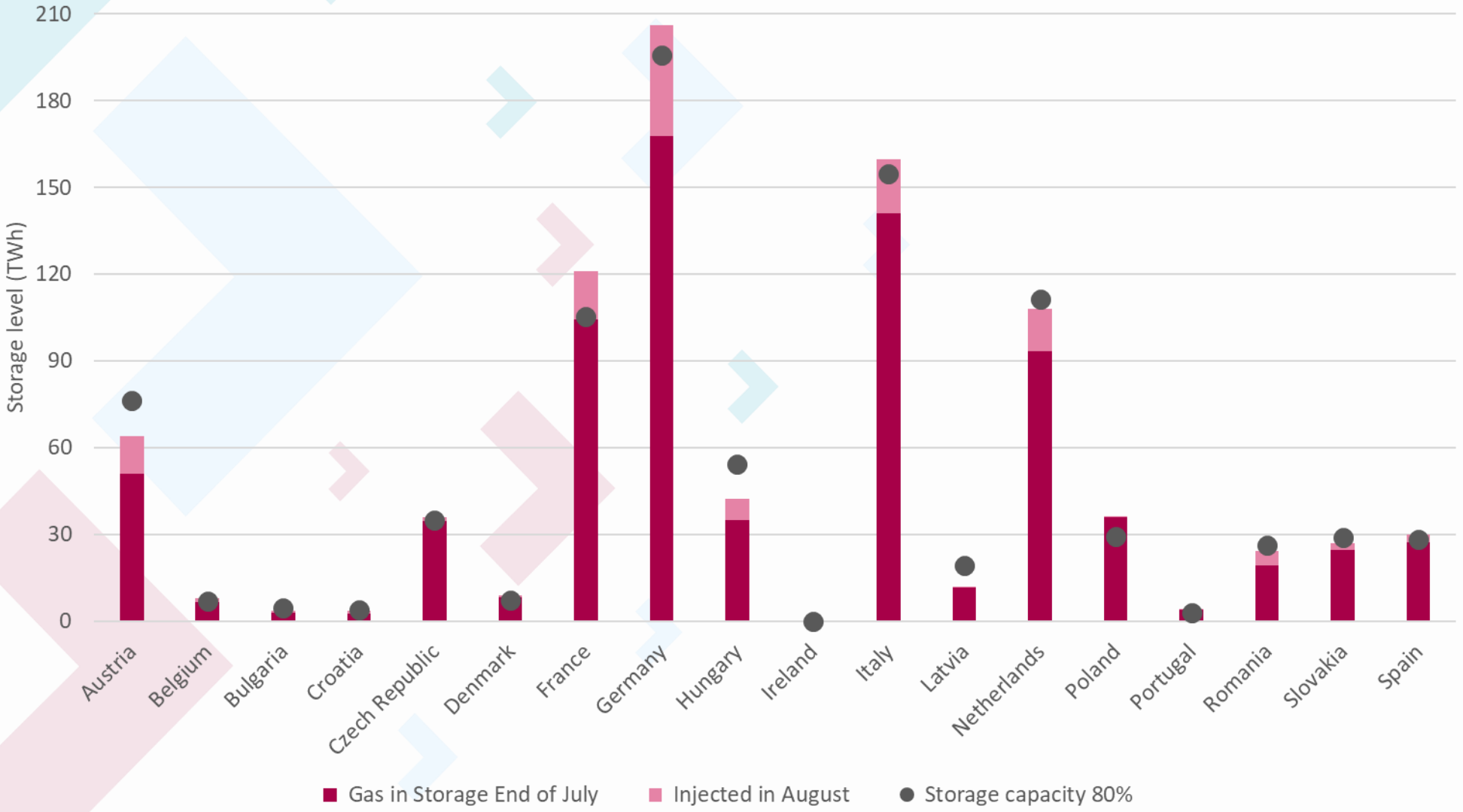
EXPERT OPINION:

- By the end of August European aggregated storage levels were at 80%. This means, that the previously defined 85% target level might be achieved before 1 November.
- Hungarian storage levels exceeded 60% of the total storage capacity, which is above the target 35% of the average consumption of the last 5 years.

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.

Gas storage levels in the EU

Source: AGSI, ICIS, MEKH, EURactiv

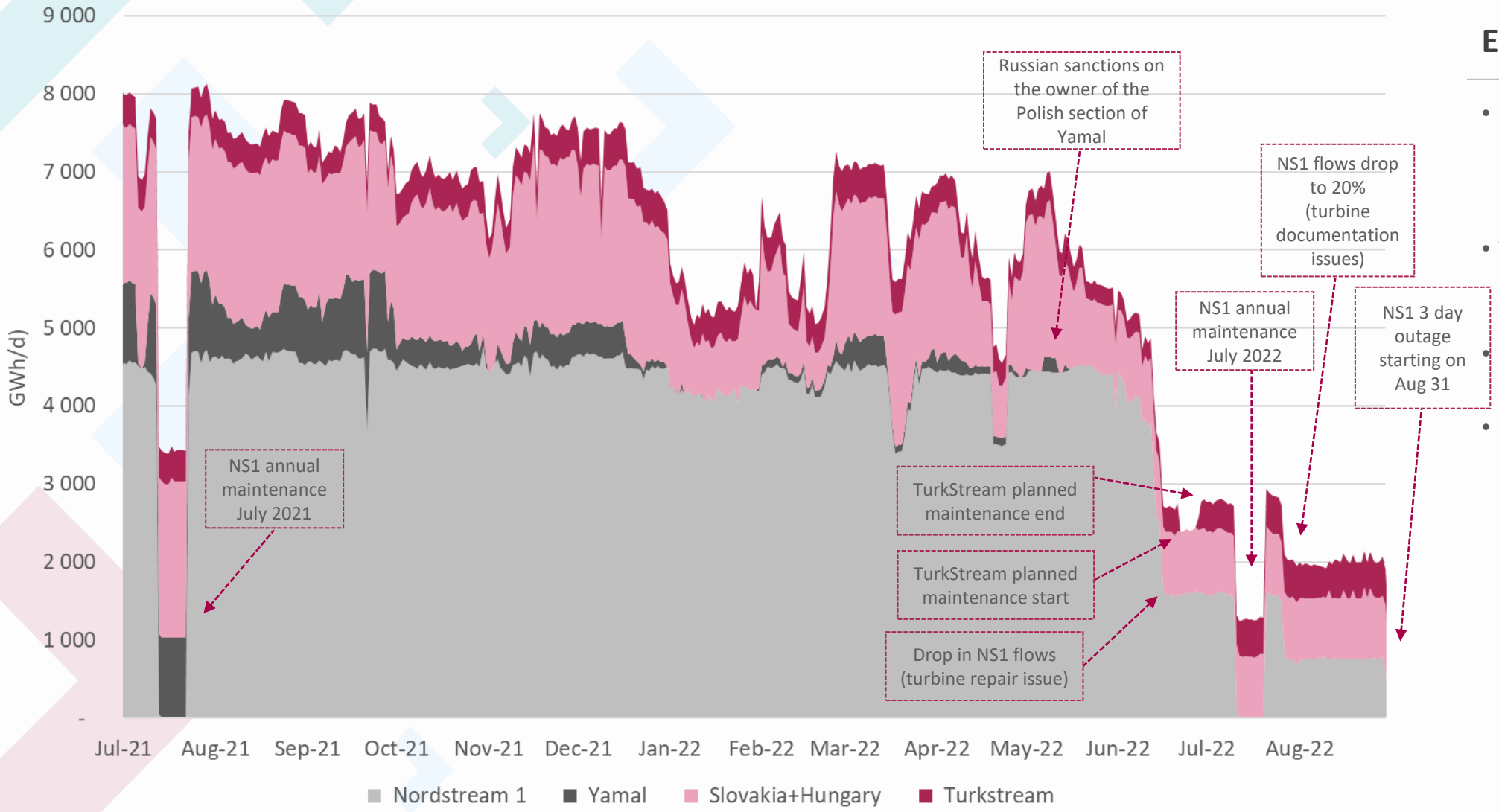


EXPERT OPINION:

- By the end of August European aggregated storage levels were at 80%. Collectively, the goal is for the EU to fill 85% of underground gas storage capacity in 2022.
- High storage capacity countries like France, Germany, Italy or the Netherlands have reached 80%, but Austrian storages are still lower, while for Hungary and Latvia a 35% target was allowed.
- Countries with low storage capacity, like, Belgium, the Czech Republic, Denmark, Poland, Portugal, Romania, Slovakia or Spain have also fulfilled the obligation before the due date.

Gasflows from Russia

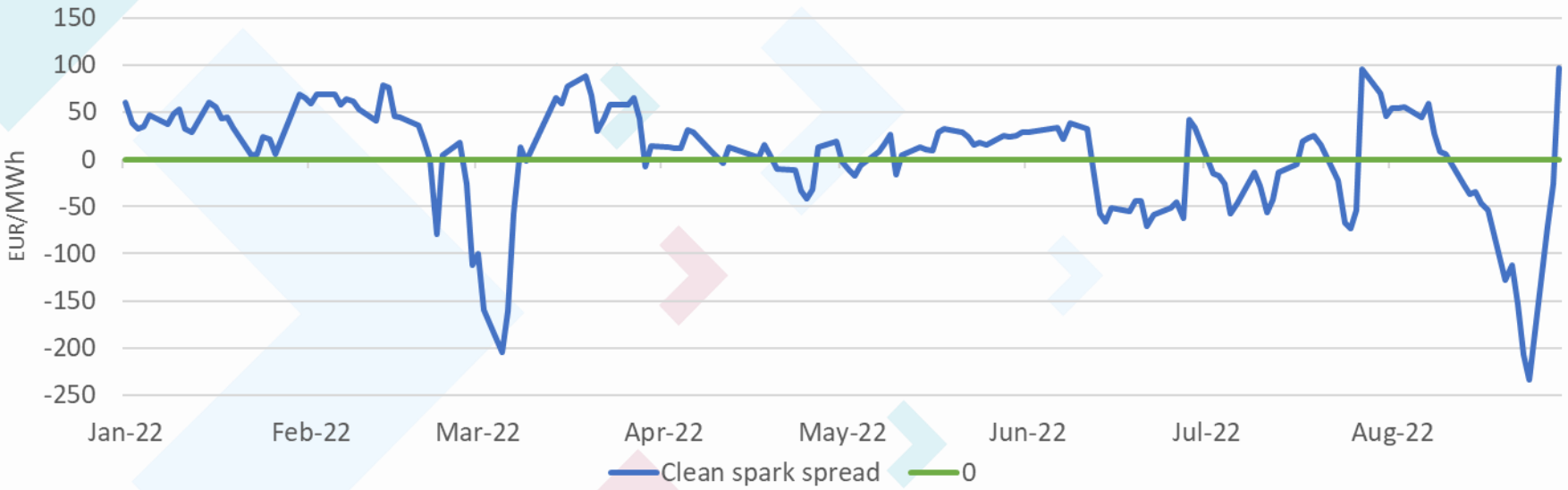
Source: ENTSOG, ICIS

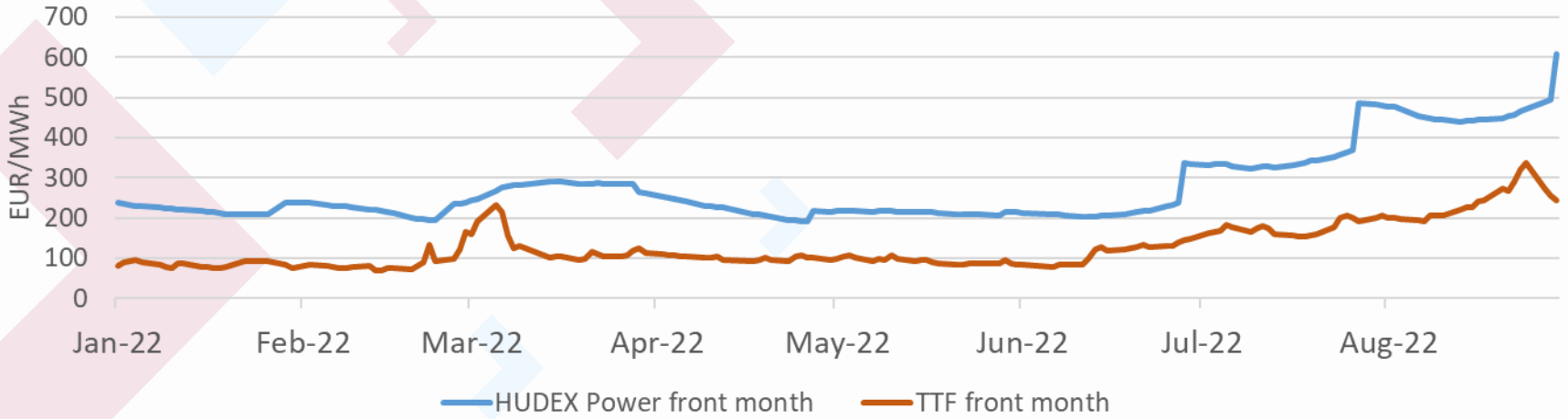


EXPERT OPINION:

- NS1 3-day outage started on 31 August, but flows have not returned after the planned due date.
- Yamal flows via Belarus disappeared after Russian sanctions in May.
- Flows from the Ukrainian direction lowered.
- Deliveries via TurkStream increased in August.

Front month clean spark spread



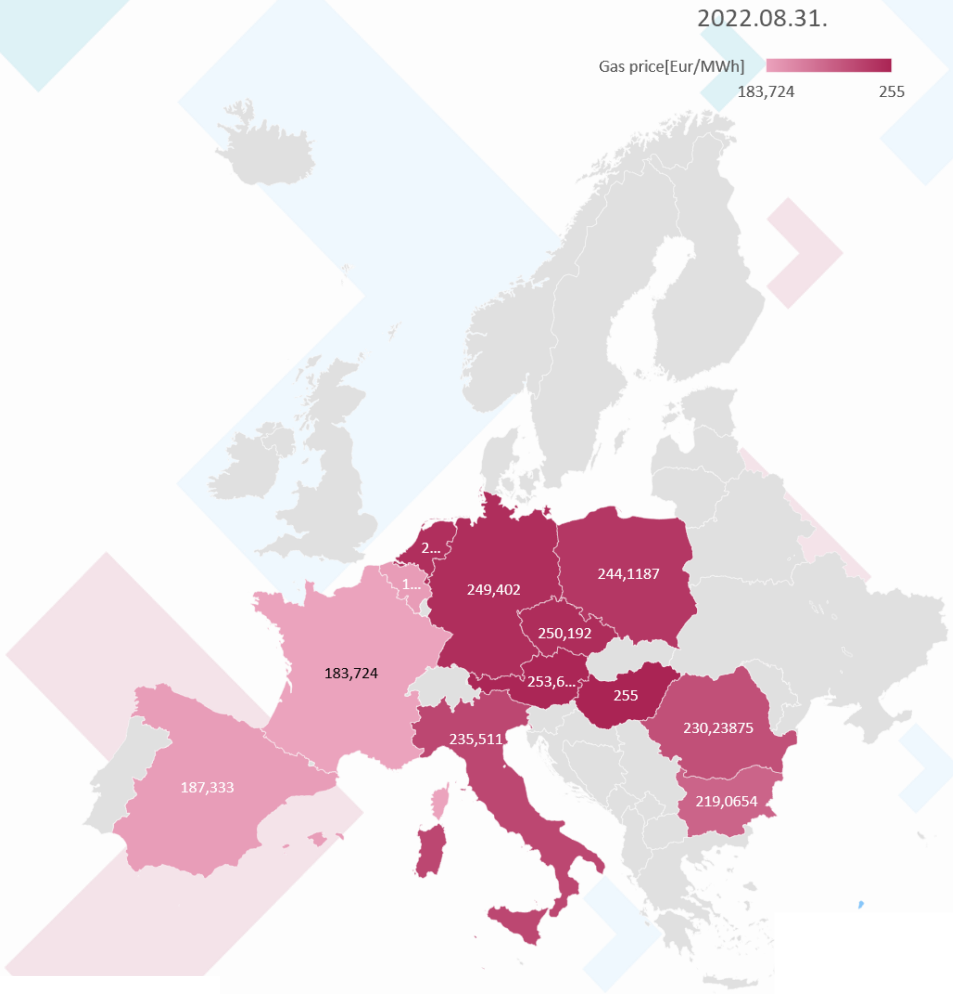


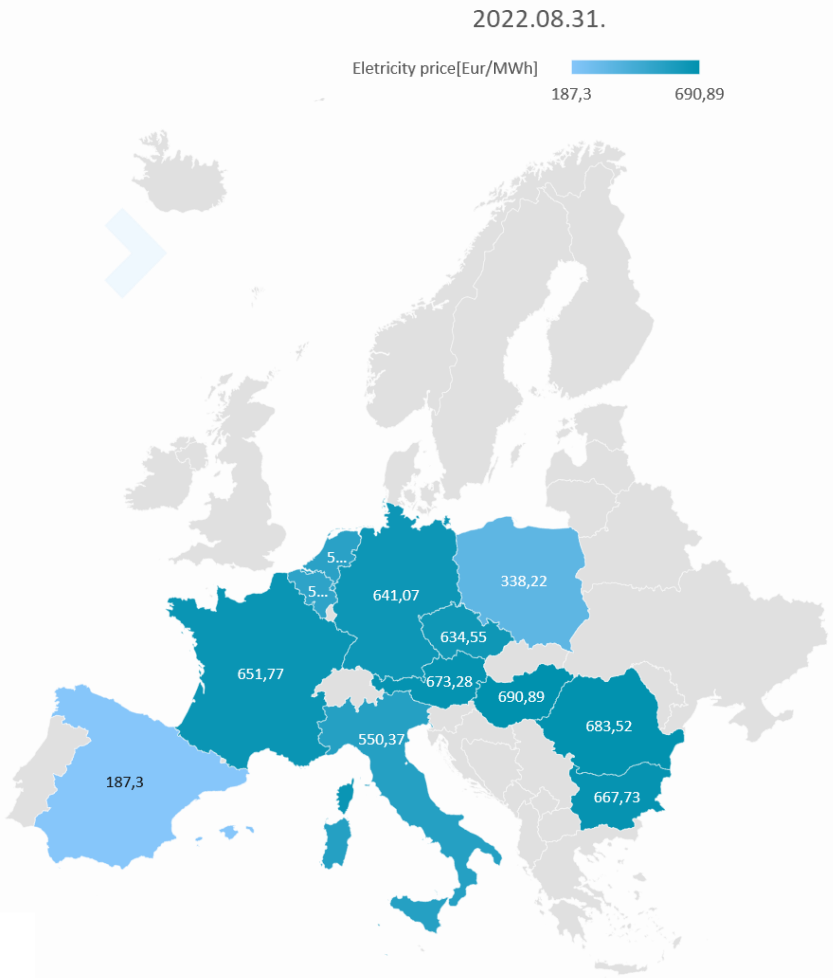
EXPERT OPINION:

- Since the start of the year, the front month clean spark spread was quite positive.
- In March, it was significantly negative, due to the high increase in prices.
- During the year, the power and gas prices were moving together, however since mid August, we can see that that they are breaking away from each other.
- Gas power plant efficiency was 49% and CO2 emission was 0,2T/MWh during the calculation.

The Iberian price cap effects on EU markets

Source: Argus, ICIS, Refinitiv, TGE



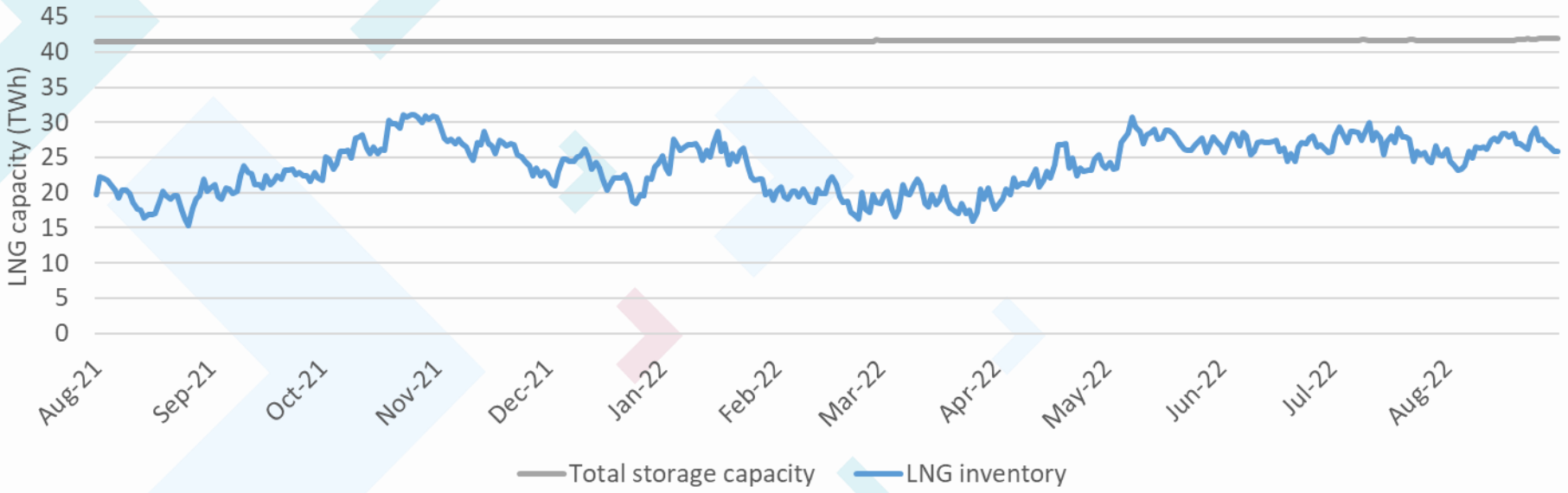


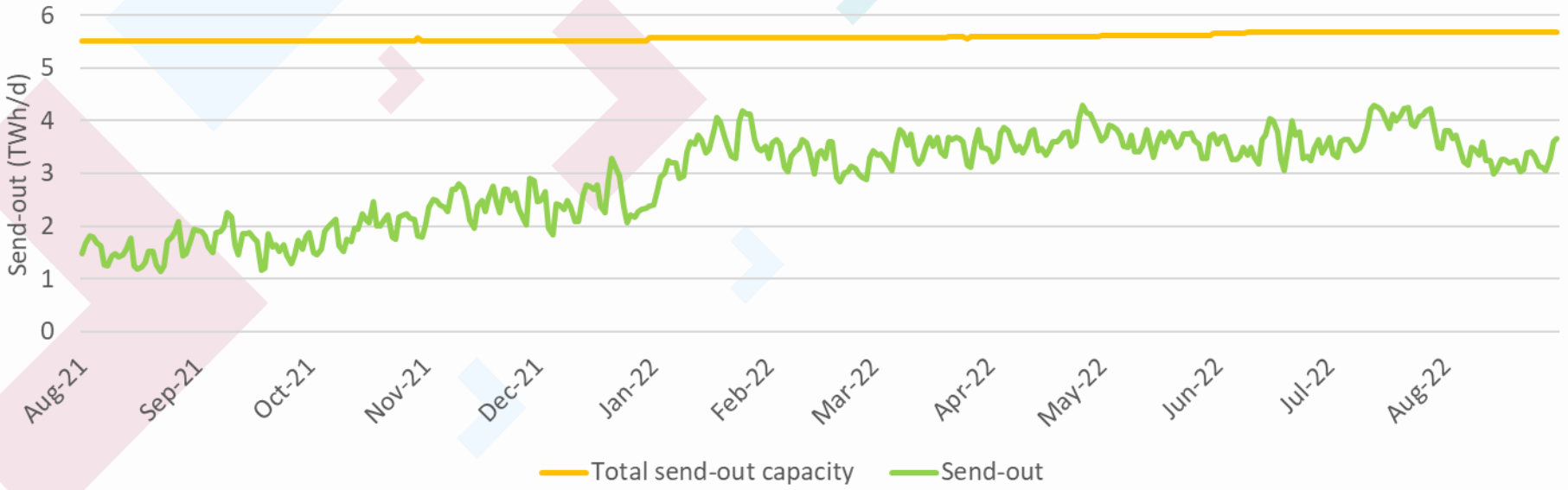
EXPERT OPINION:

- The price cap was introduced on **June 14** on the Spanish and Portuguese markets.
- The main reason for the measure was to **reduce** the price of the **power** generated from **gas and coal.**
- The measure **was successful in Spain**, power **prices are lower** than in other European countries.
- Unpredictably in **France** the **gas prices were lower** than in the neighboring countries, because of the French **power imports**.

EU LNG send-out and storage capacity

Source: ALSI, ENTSOG



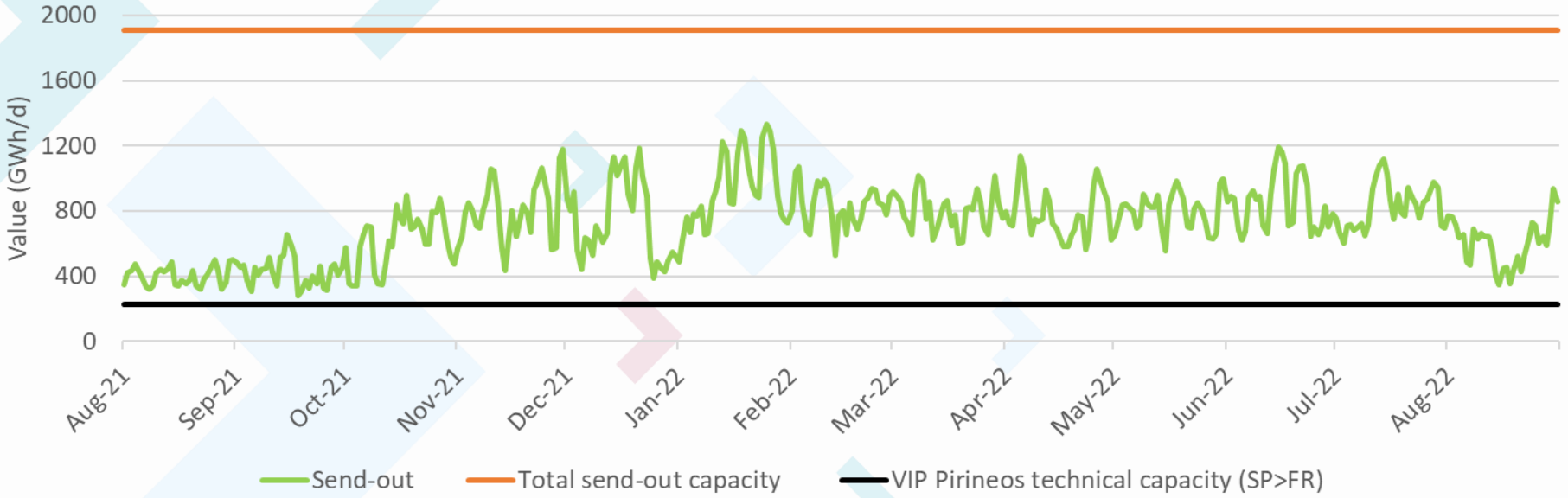


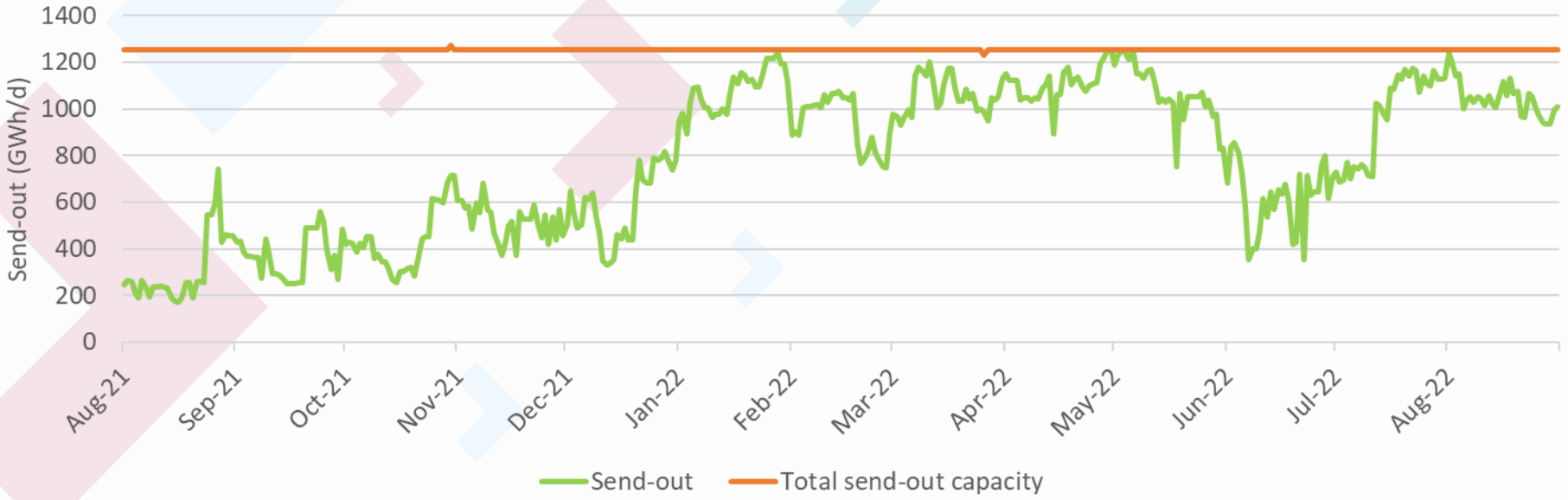
EXPERT OPINION:

- The EU's total LNG **storage capacity** is **42 TWh**, and the total **send out capacity** is **5.7 TWh/day**.
- The **send-out increased by 75%** this year, while there is still remaining storage capacity. The invetory is stagnating, which is due to the increased LNG import.
- Spain and France are the two main LNG importers, with the largest storage, and send-out capacity. Belgium and the Netherlands are also significant.

Spanish and French LNG send-out

Source: ALSI, ENTSOG





EXPERT OPINION:

- Spain has the largest **LNG inventory** in the EU, with more than **50%** of the total. Their **send-out capacity** is only **33%** of the total.
- Spain uses and stores their LNG send-out in the country.
- The interconnection point's technical capacity is limited, and the gas usually flows from France to Spain.
- France has a smaller inventory and send-out capacity, but their average daily send out is still higher than Spain's.
- The current price of the natural gas is cheaper in France, it is unlikely that they will import gas from Spain in the near future.

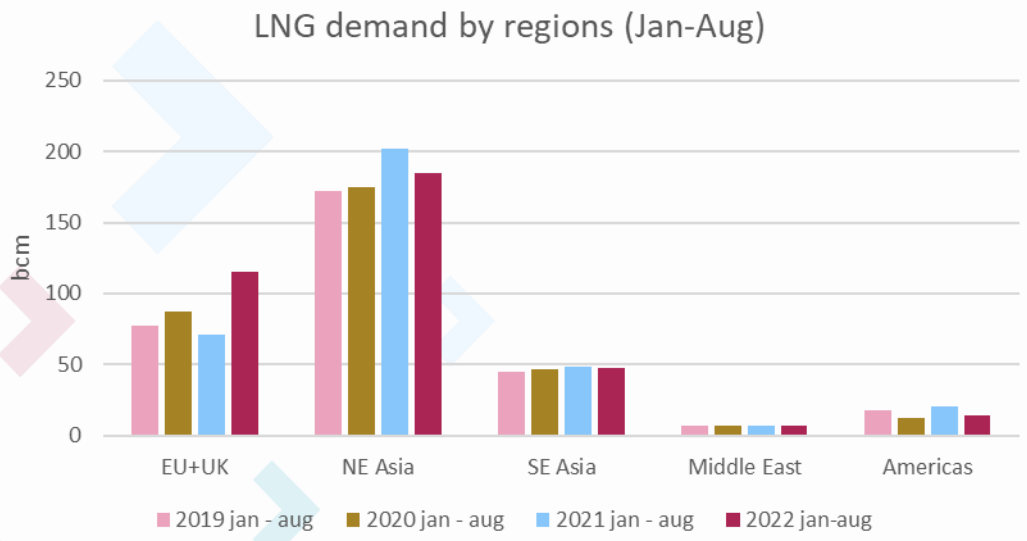
LNG outlook

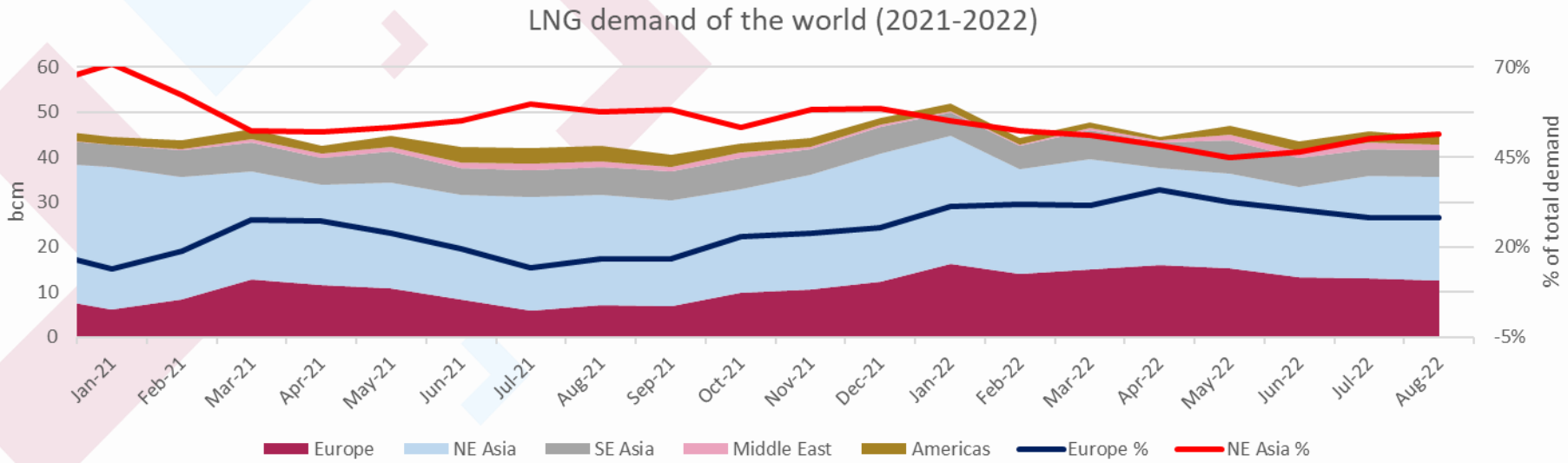
Source: Eurostat, ALSI, Refinitiv, Energy Intelligence

Approx. 2908 TWh export capacity
(USA,Qatar,Algeria,Nigeria,Norway)

2072 TWh EU Send-out capacity

4028 TWh EU gas consumption





EXPERT OPINION:

- European LNG imports have increased significantly in recent months
- In parallel, the Asian market, which is the alternative market for LNG, is declining
- Asian countries are switching to more polluting oil and coal-fired power generation due to the high price environment
- The total annual capacity of the EU's main LNG suppliers could meet about three quarters of EU demand
- At the same time, the current send-out capacity is only capable of injecting 2072 TWh of gas (regional bottlenecks make difficult its distribution)