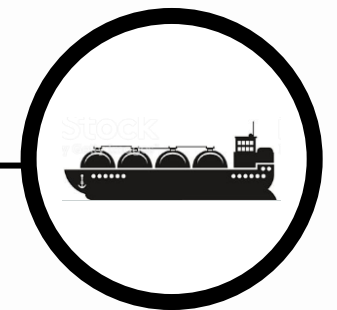


# Global & Regional Market Analysis

Natural Gas

2022/Q3





# Stories of the recent weeks

On 11 July Canada exempted the NS1 turbine from sanctions and sent it to Germany after repair.  
On 25 July Germany released a statement saying all conditions had been satisfied regarding NS1 turbine issues, but Gazprom disagreed and challenged the documentation.



Due to turbine issues and maintenance NS1 flows dropped to 20% on 27 July, then on 31 August to 0%. NS1&2 lost pressure and become inoperable on 26 Sept, 4 gas leaks have been confirmed by the end of Sept.



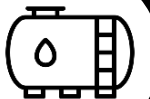
On 26 July EU energy ministers adopted 15% gas savings regulation with exemptions. Revenue caps in power sector, peak hour demand cuts and solidarity contribution of fossil fuel companies were accepted by EU energy ministers on 30 Sept.



On 13 July Hungary announced state of energy emergency and a 7-point energy security action plan. Hungarian gas TSO tariffs for entry and exit will increase from 1 October. Annual capacity auctions on Hungarian IPs took place in July.

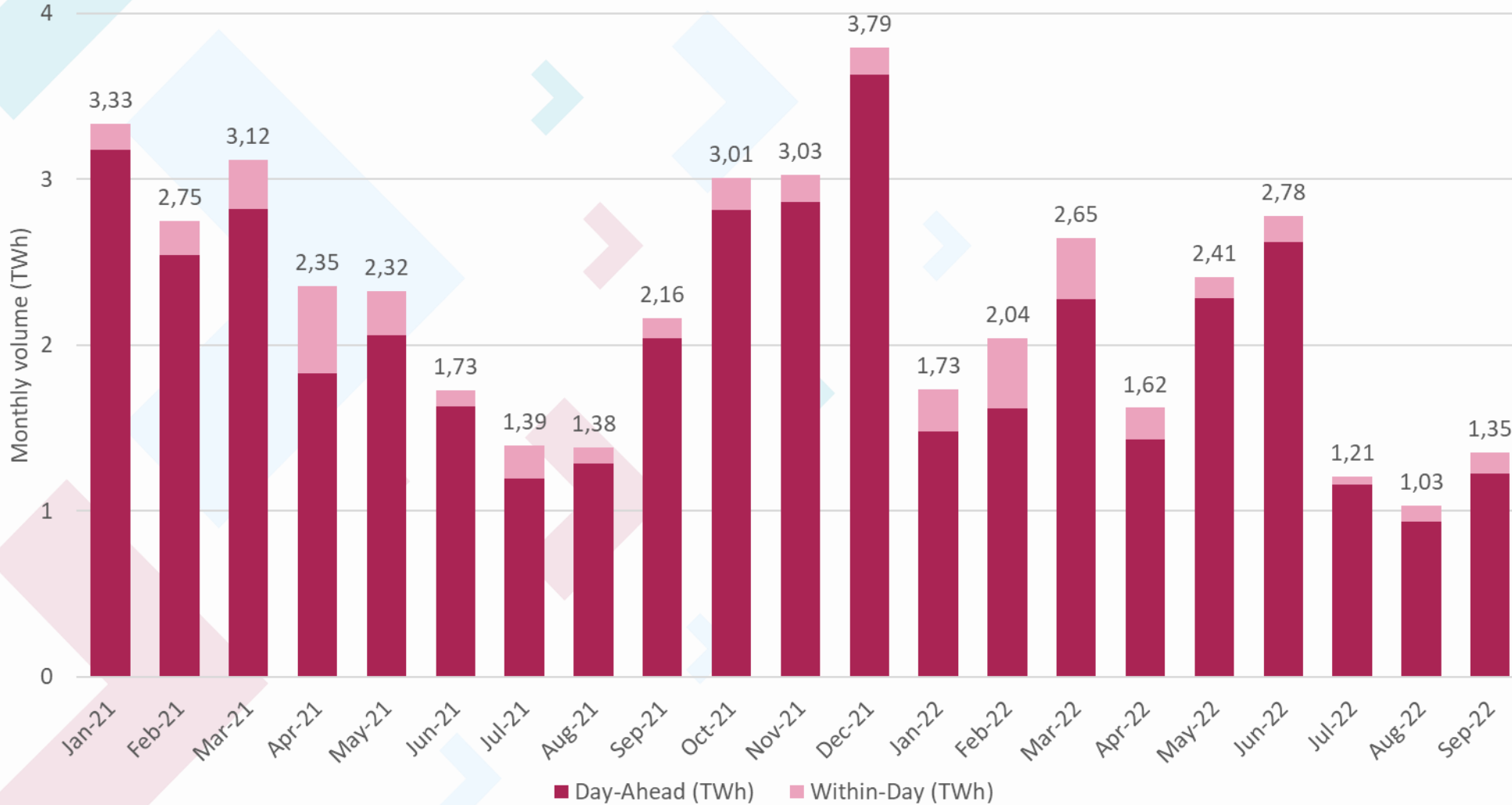


Gazprom will deliver up to 5.8 mcm/d more natural gas in Sept, Oct. Hungarian state-owned companies and public institutions have to reduce their gas consumption by 25% this winter. HUSA has started to create a “special gas reserve” ahead of the 1 Nov deadline.



# CEEGEX monthly traded volumes

Source: CEEGEX

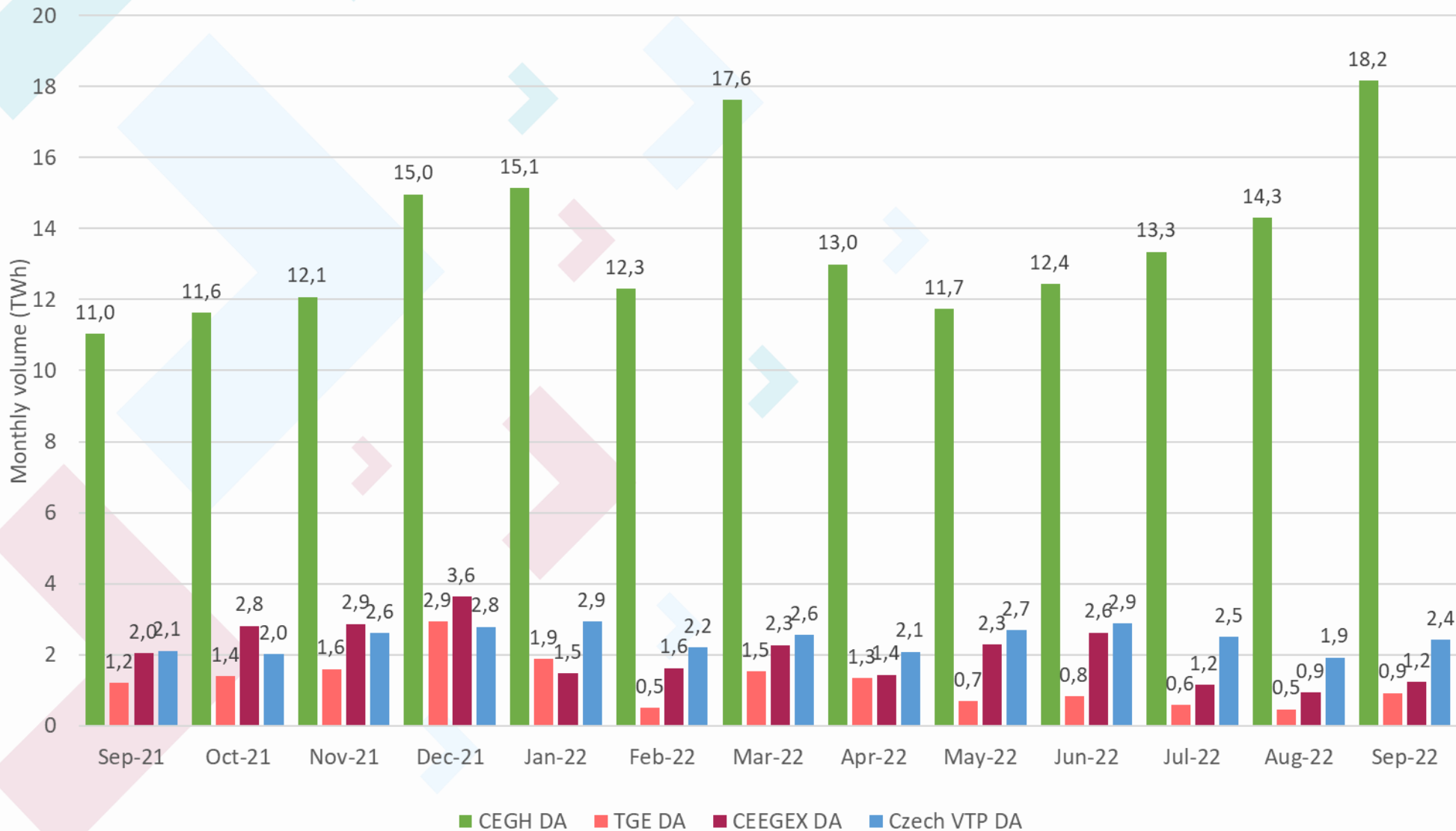


## EXPERT OPINION:

- CEEGEX traded volumes decreased in July and August, but increased in September.
- Lower TTF FM-CX spread and a moderate decrease in prices might have incentivized spot trading in September.
- Low summer demand and high margin requirements kept a lid on traded volumes in 2022 Q3.

# Regional scope DA markets

Source: CEEGEX, CEGH

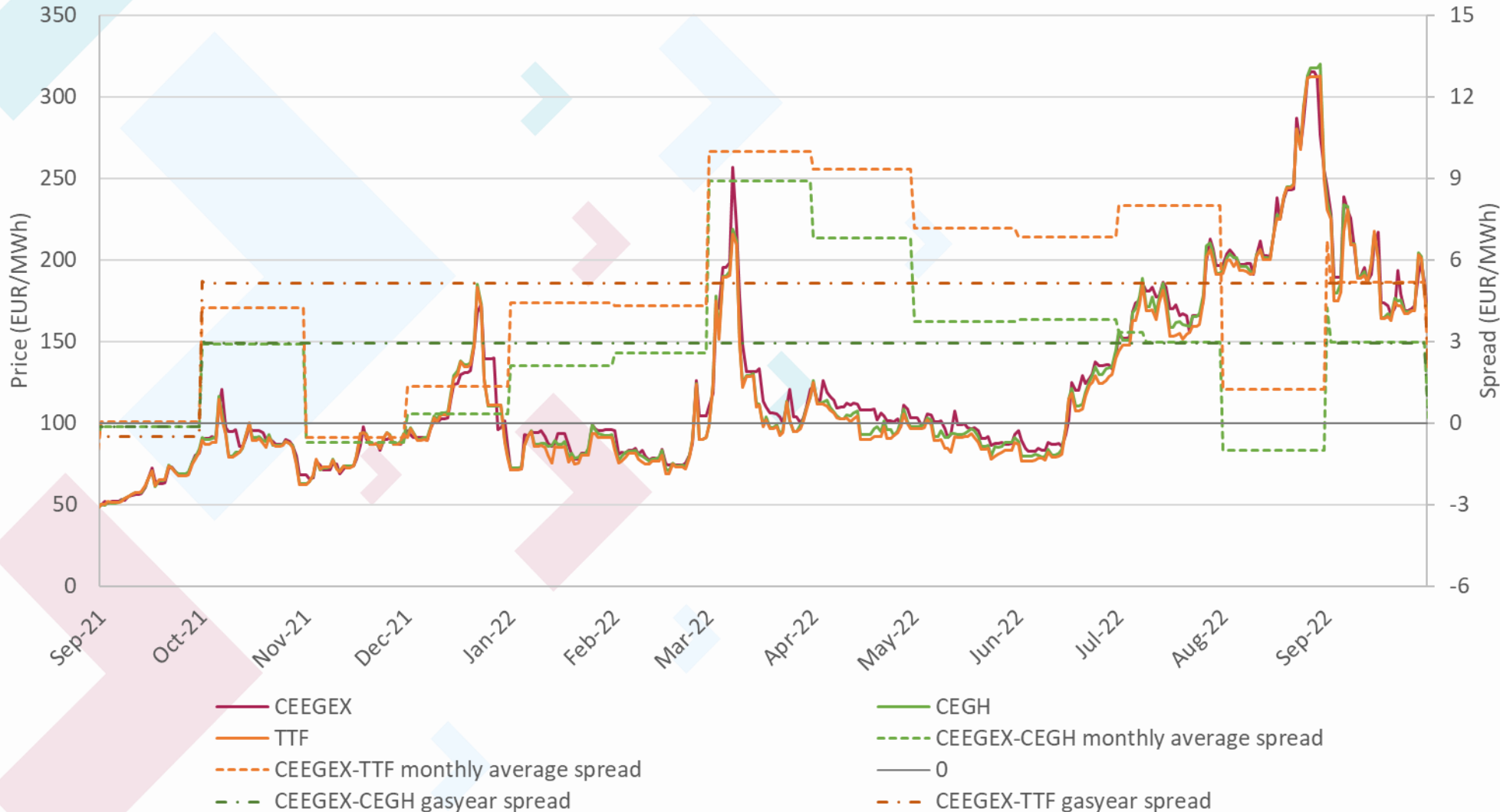


## EXPERT OPINION:

- Similar moves in volumes were observable on other regional markets.
- CEGH reached highest traded volumes since last September.
- Austria reached 80% of their storage capacity only by the end of September. This might have further incentivized spot trading on top of lower TTF FM-CEGH spread.
- Hungary, Poland and the Czech Republic had already reached the target level by the end of August.

# Regional prices and spreads

Source: CEEGEX, EEX, IEA

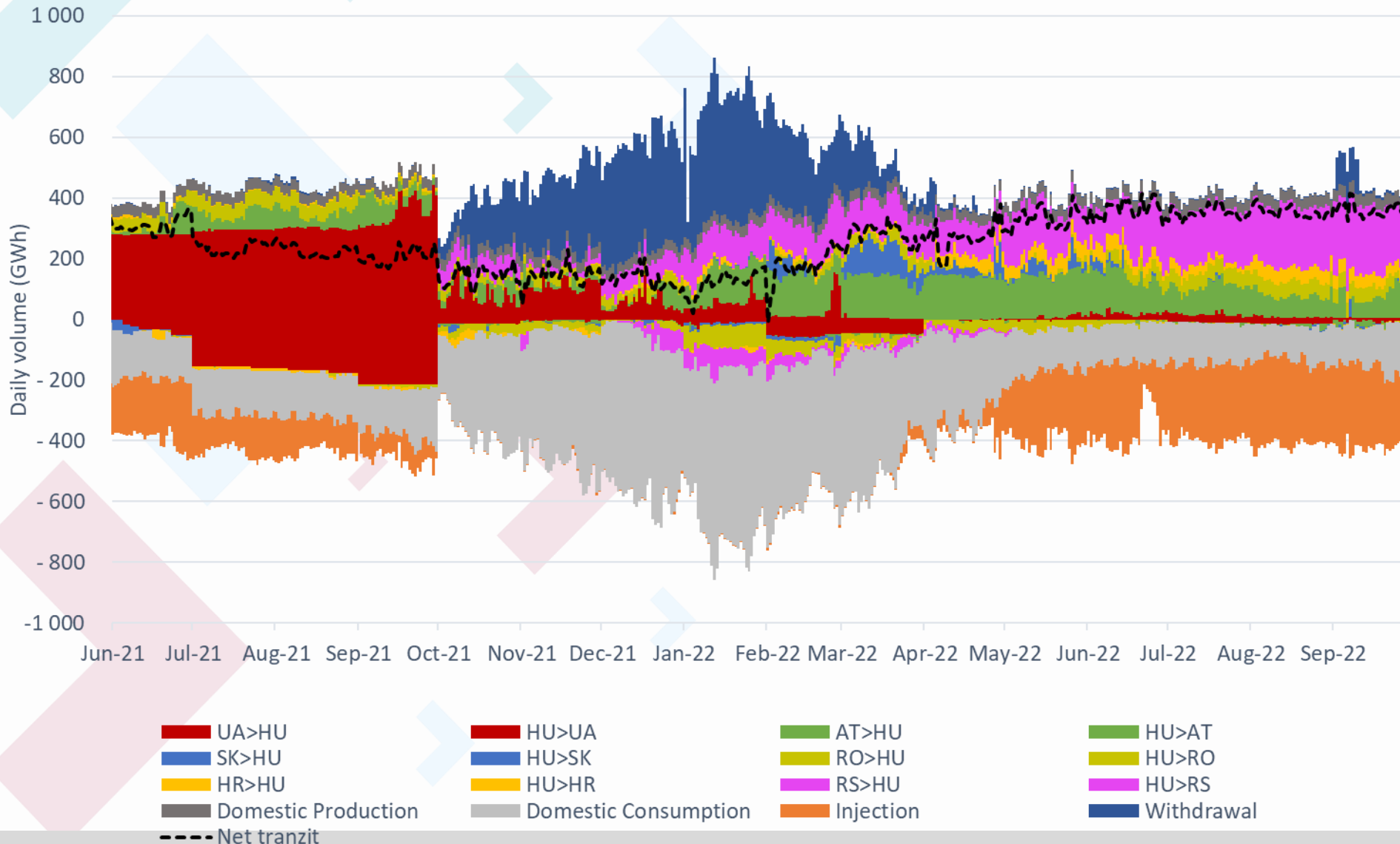


## EXPERT OPINION:

- In August the CX-CEGH spread was in the negative territory due to extreme price spikes.
- In September bearish price moves resulted in spreads on a similar level than in January-February 2022, just before the outbreak of the war.
- Despite constant supply fears in relation to Russian gas flows, in September strong technical bearish signals, robust LNG supply and lower demand were dominating European gas markets.

# Hungarian gas market balance

Source: AGSI, FGSZ



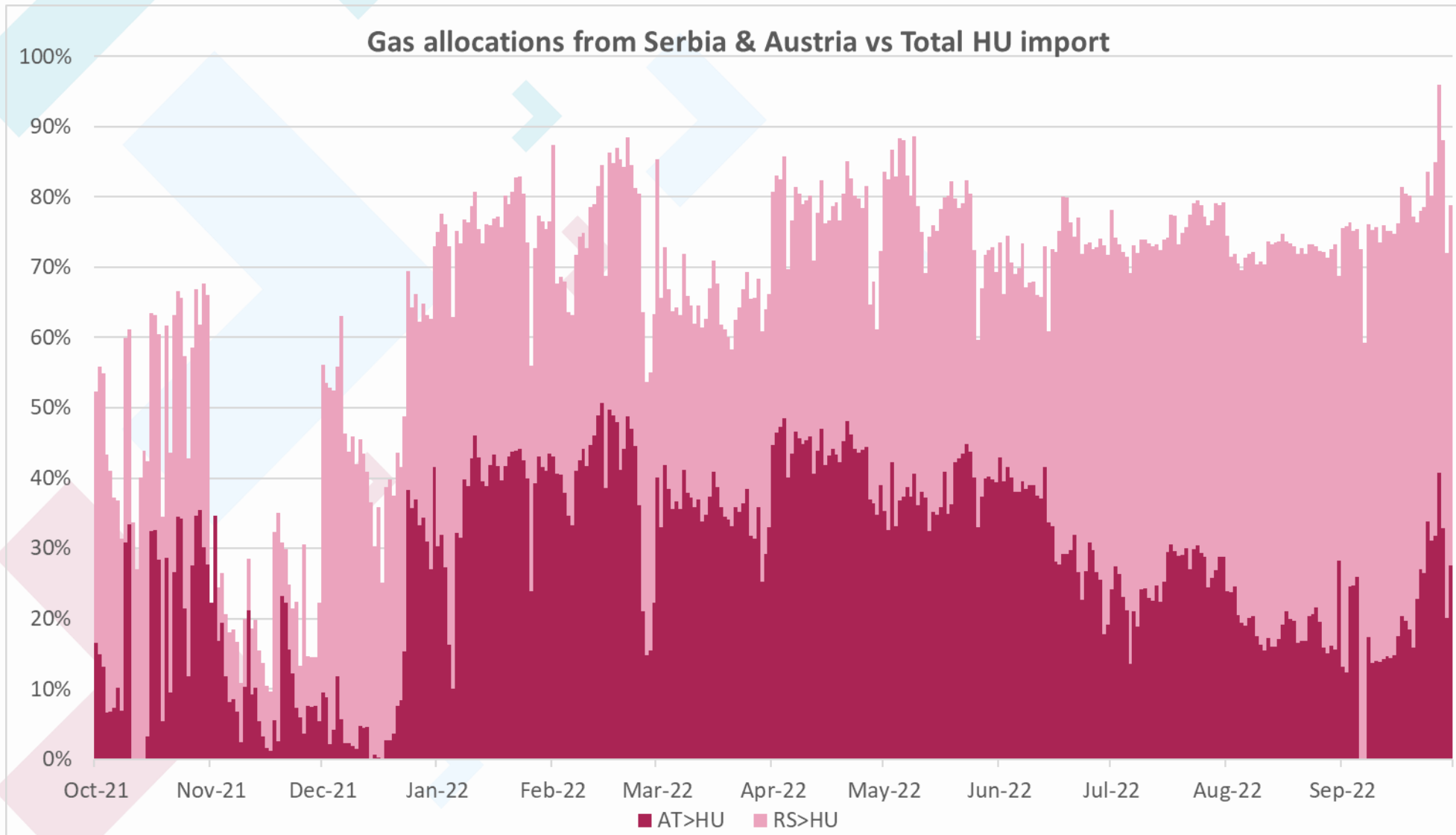
## EXPERT OPINION:

- Domestic consumption started to increase in Sept - most probably colder weather and higher use of volumes under expiring gas contracts (with lower prices) were the cause.
- In Sept the pace of injections slowed in comparison to July-Aug.
- Flows from RS are becoming the dominant import route and AT volumes also increased in the second half of Sept. HR imports remained stable, but RO flows lowered. SK imports disappeared since May. There were some UA import-export volumes, but insignificant in comparison to flows before 2021 Oct.

Disclaimer: This document contains analyst opinions, which don't necessarily represent the official views of CEEGEX or HUDEX.

# New Hungarian-Russian gas deal

Source: AGSI, FGSZ

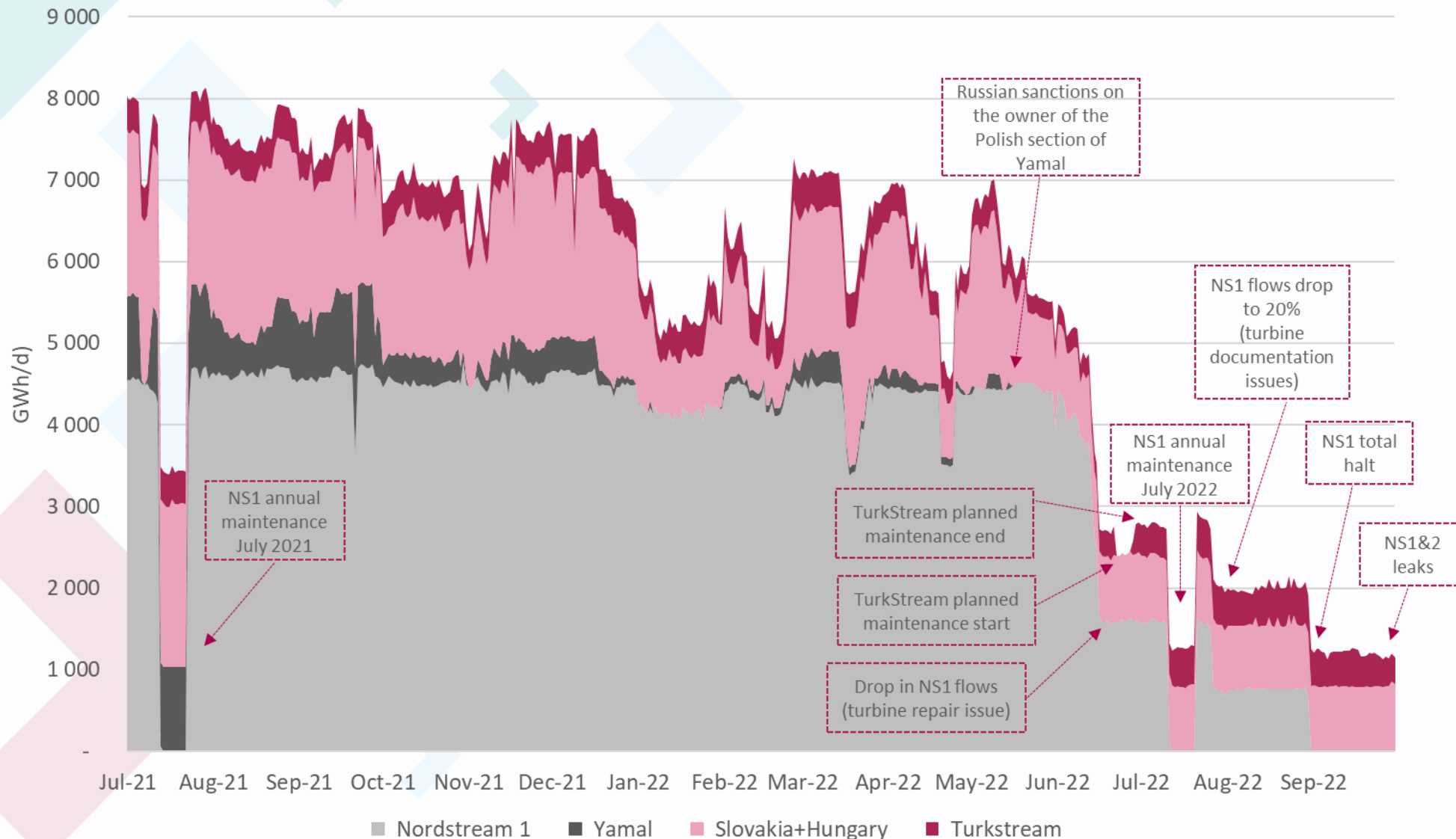


## EXPERT OPINION:

- 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, Serbian imports were higher, while Austrian imports lowered.

# Gasflows from Russia

Source: ENTSOG, ICIS



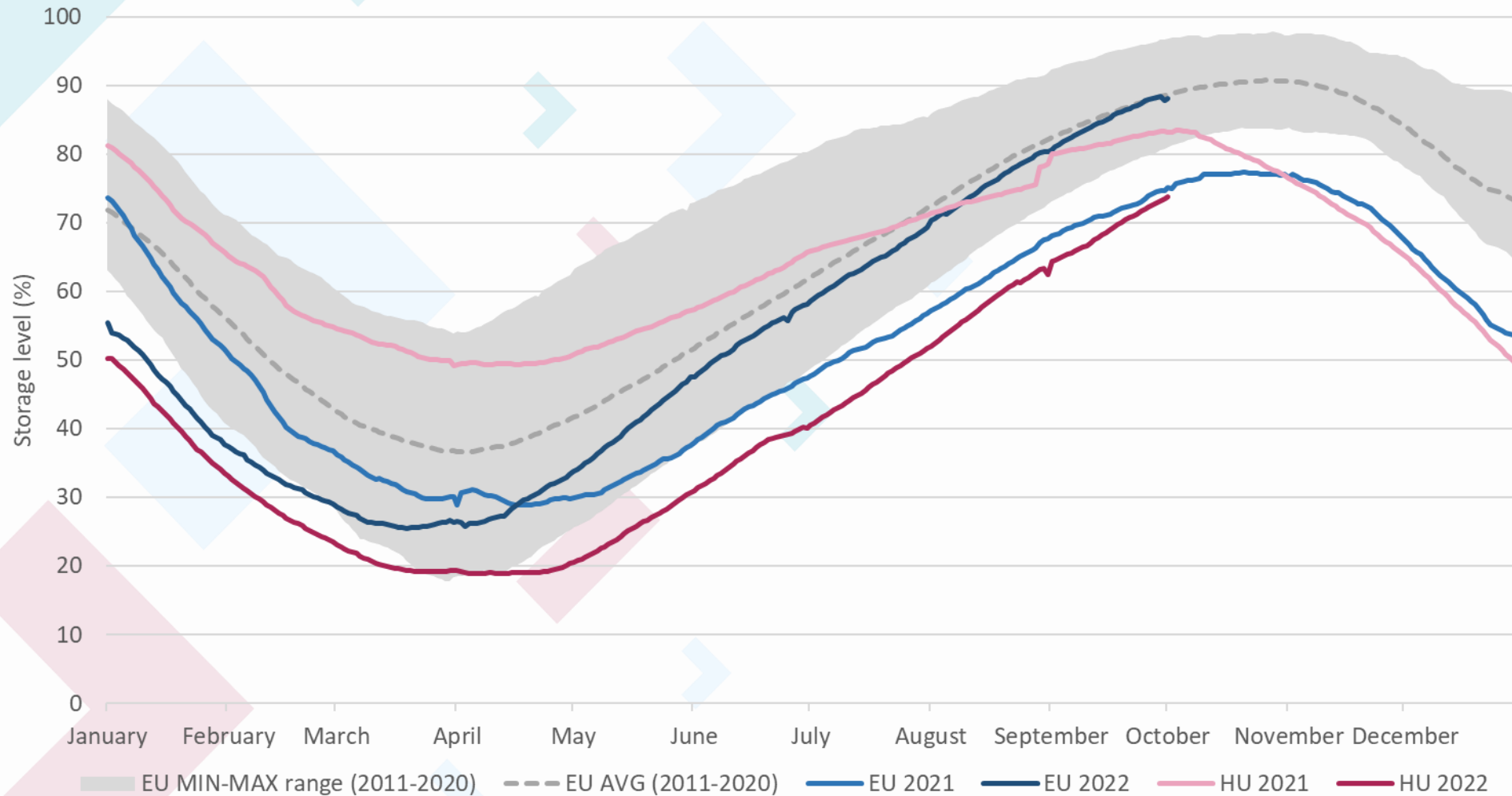
## EXPERT OPINION:

- NS1 3-day outage started on 31 August, but flows have not returned after the planned due date and remained at 0 mcm/d until now.
- Yamal flows via Belarus disappeared after Russian sanctions in May.
- Flows from the Ukrainian remained low and Russia threatened to cut all deliveries via Ukraine.
- Deliveries via TurkStream remained stable.



# Gas storage level in EU and HU

Source: AGSI, ICIS, MEKH



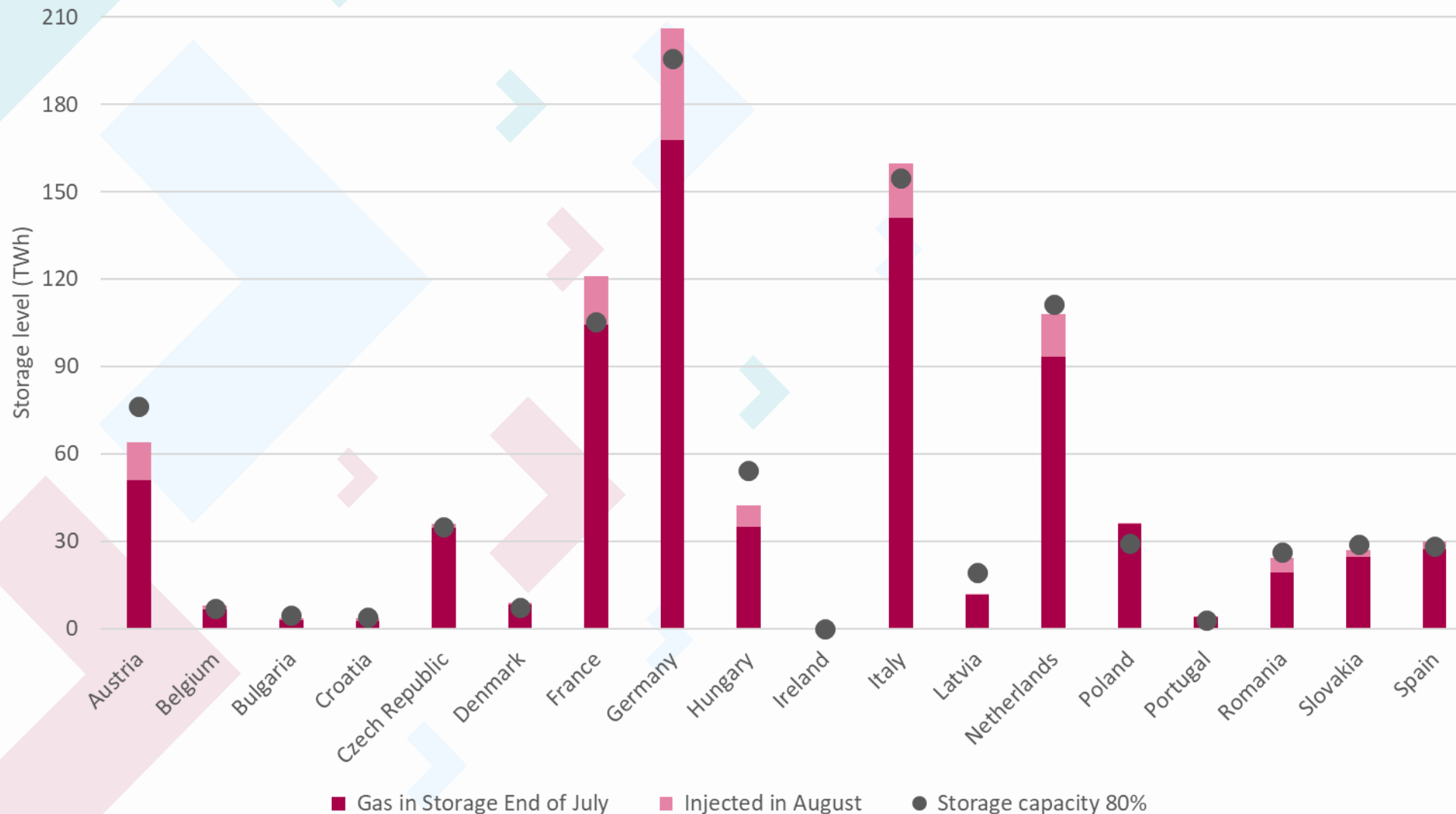
## EXPERT OPINION:

- European aggregated storage levels were at 80% by the end of August, and at 88% by the end of September, reaching the 10-year average.
- Hungarian storage levels exceeded 70% of the total storage capacity in Sept, 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

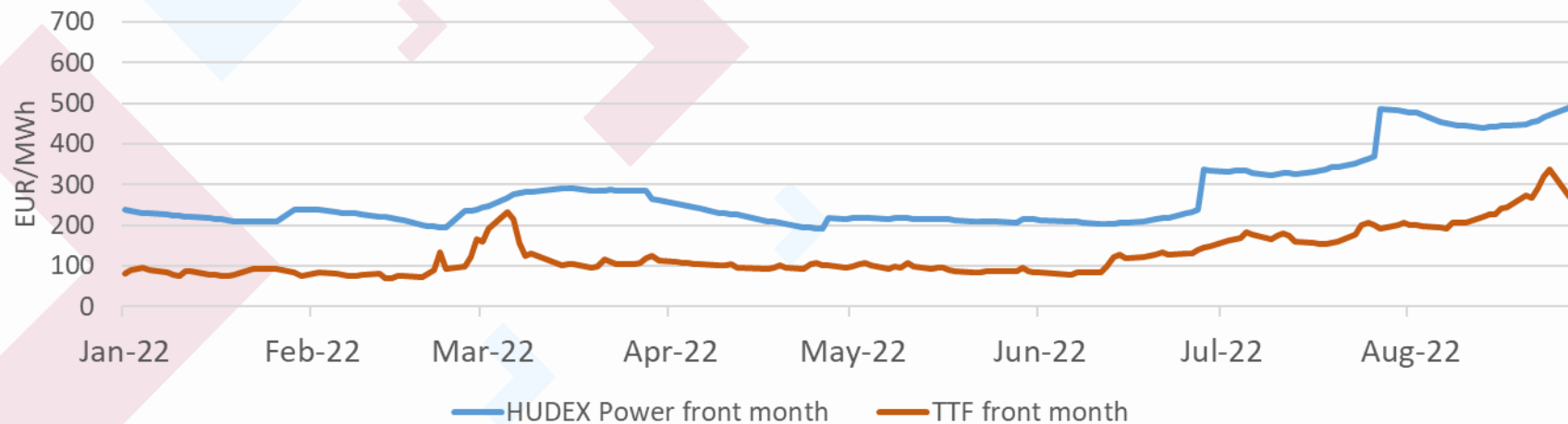
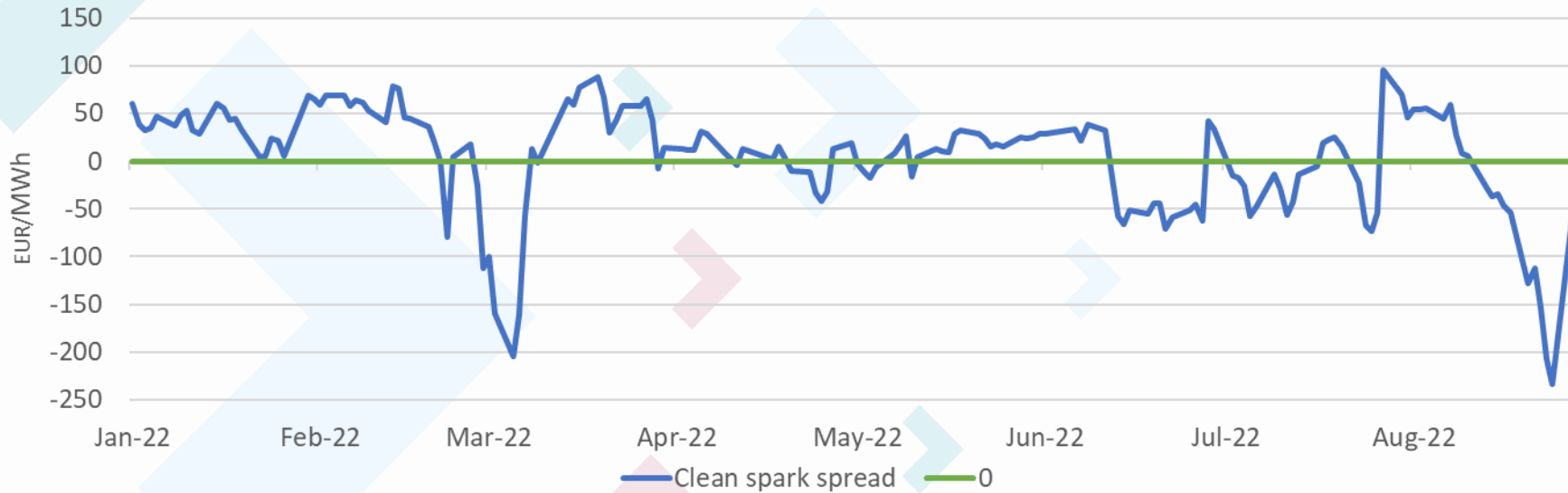
Source: AGSI, ICIS, MEKH, EURactiv



## EXPERT OPINION:

- In August high storage capacity countries like France, Germany, Italy or the Netherlands have reached 80%, but Austrian storages were 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.

# 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 CO<sub>2</sub> emission was 0,2T/MWh during the calculation.

# The Iberian price cap effects on EU markets

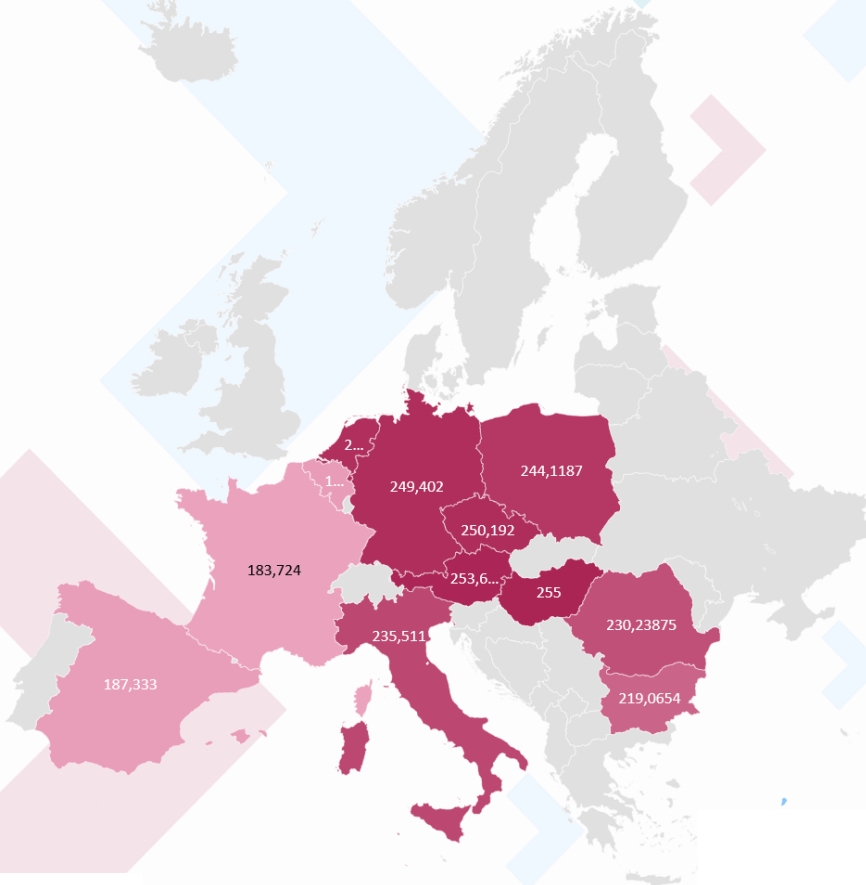
Source: Argus, ICIS, Refinitiv, TGE

## 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**.

2022.08.31.  
Gas price[Eur/MWh] 183,724 255

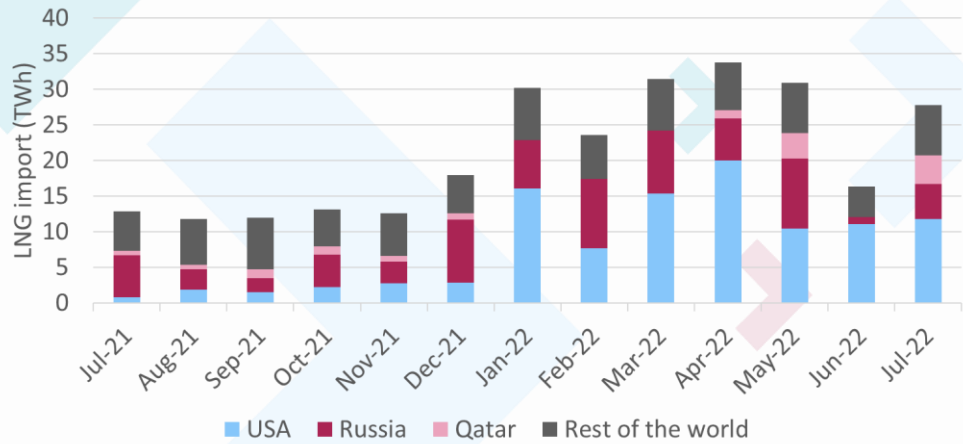
2022.08.31.  
Electricity price[Eur/MWh] 187,3 690,89



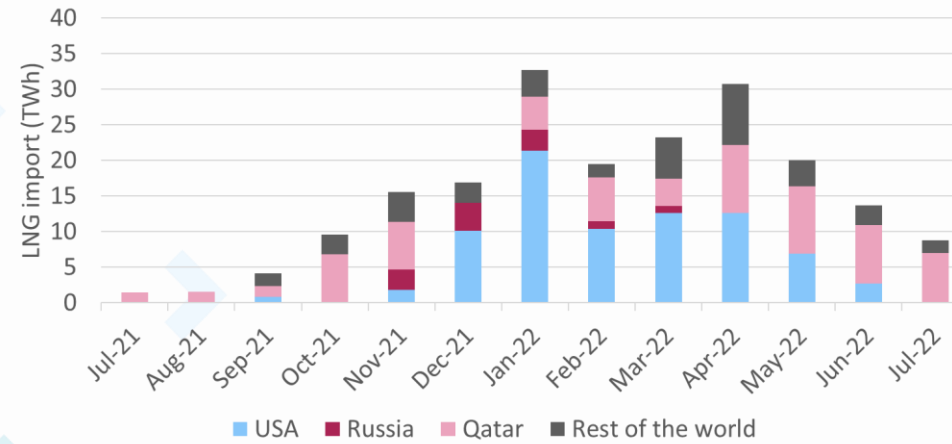
# LNG import by countries

Source: Refinitiv

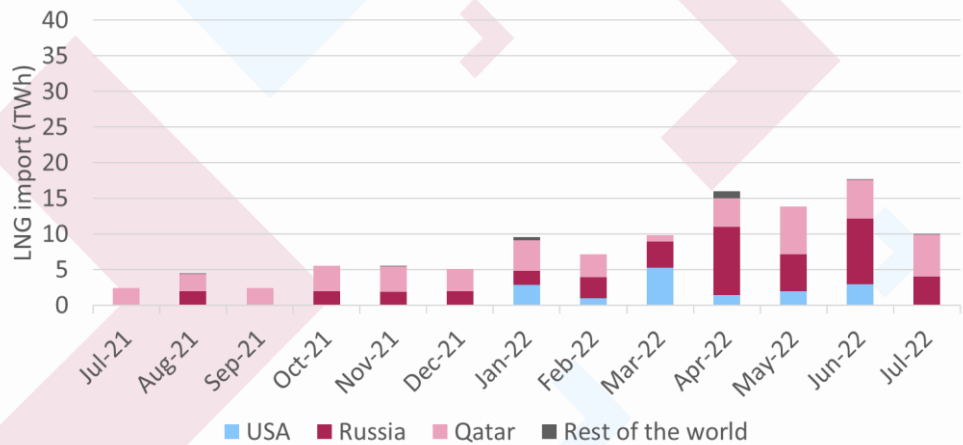
## France



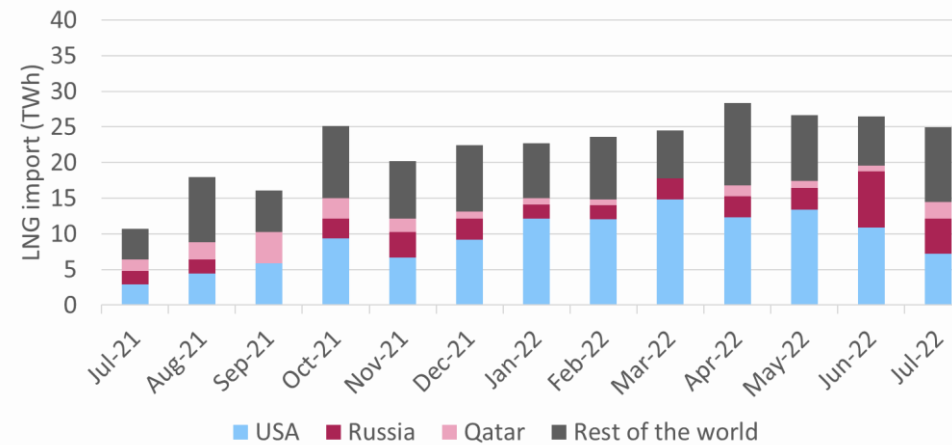
## UK



## Belgium



## Spain

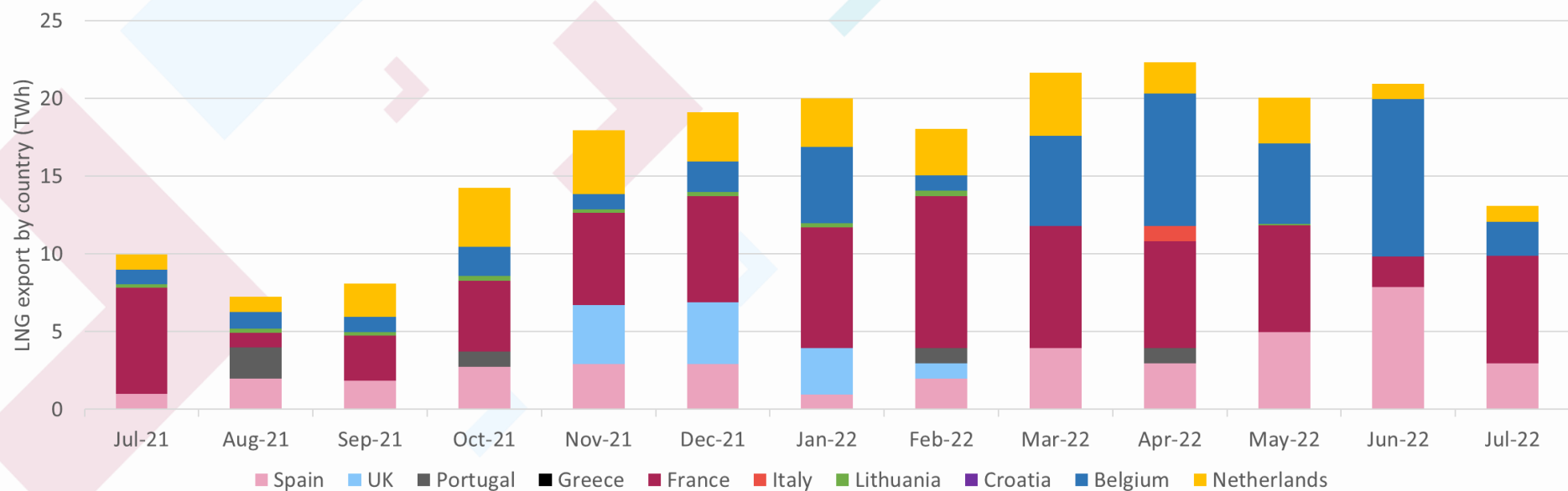
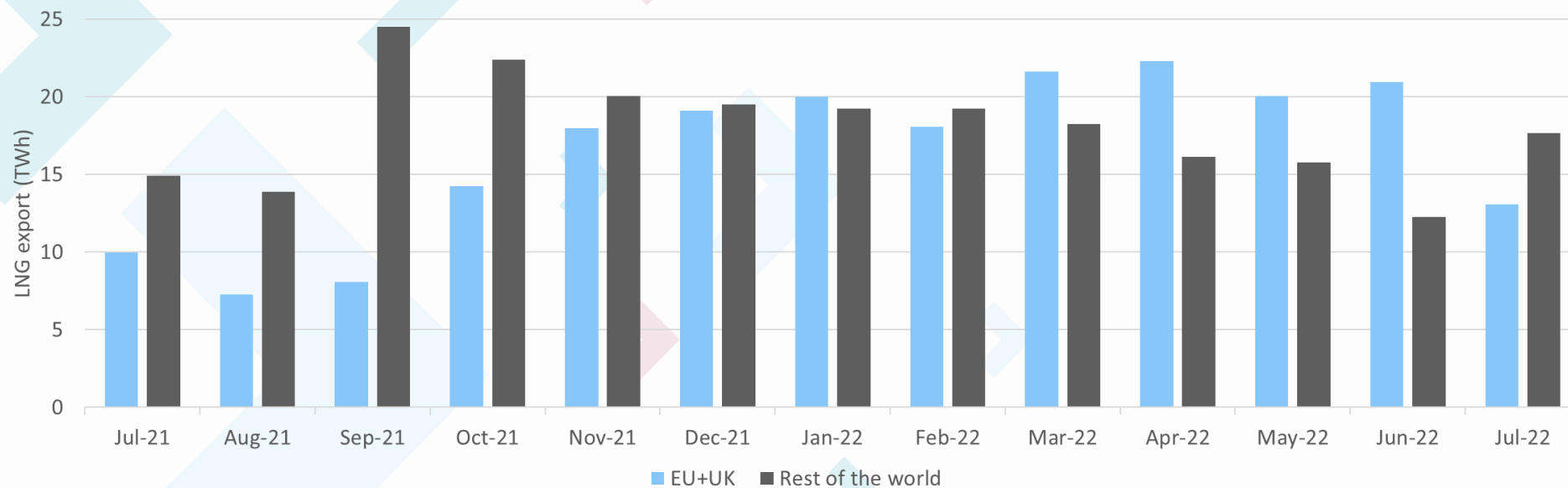


### EXPERT OPINION:

- Most of Europe's LNG imports come from the USA, Russia and Qatar, but some African countries like Nigeria and Algeria are also major exporters.
- The volume of LNG imported from the USA has grown significantly since the end of 2021, and it increased further after the outbreak of the war.

# Russian LNG export

Source: Refinitiv

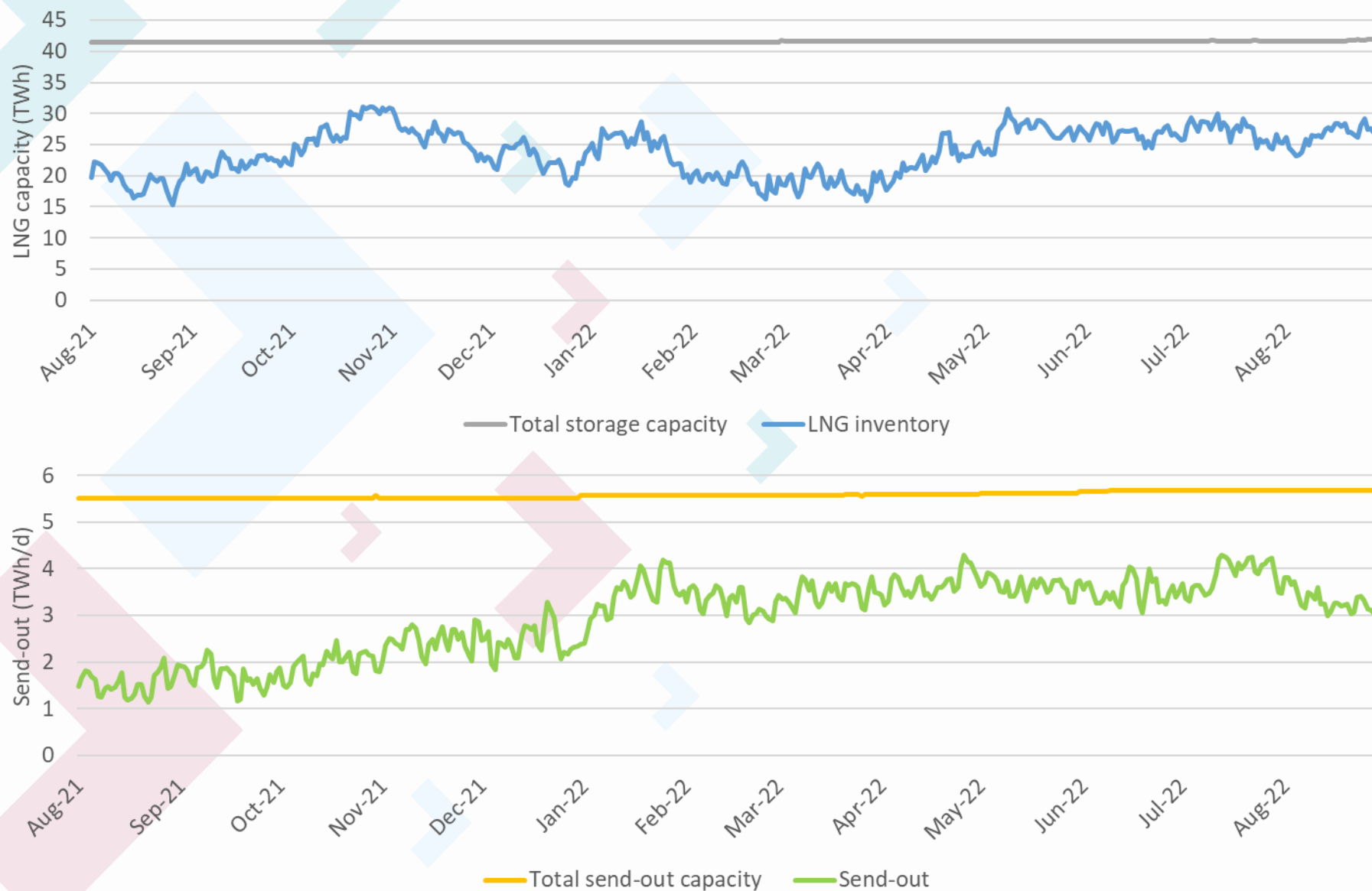


## EXPERT OPINION:

- Russian LNG to EU and UK started to increase in the last quarter of 2021.
- Despite the outbreak of the war and the sanctions across Europe, the LNG cargoes continue to arrive.
- From Russia's point of view LNG export can be more profitable, than transporting gas through pipelines.
- The three main destinations for the cargoes are France, Spain and Belgium, as the United Kingdom is not allowing Russian LNG into the country due to sanctions.

# 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 inventory 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.

# LNG outlook

Source: Eurostat, ALSI, Refinitiv, Energy Intelligence



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

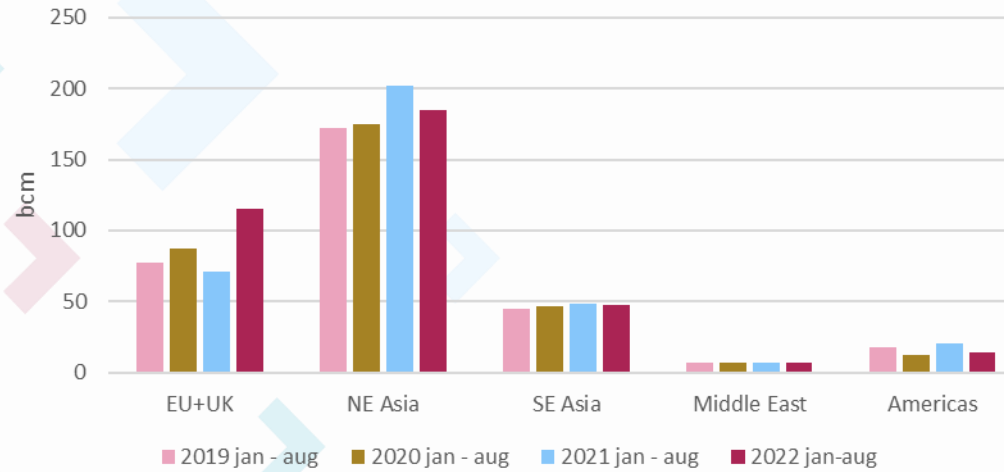


2072 TWh EU Send-out capacity

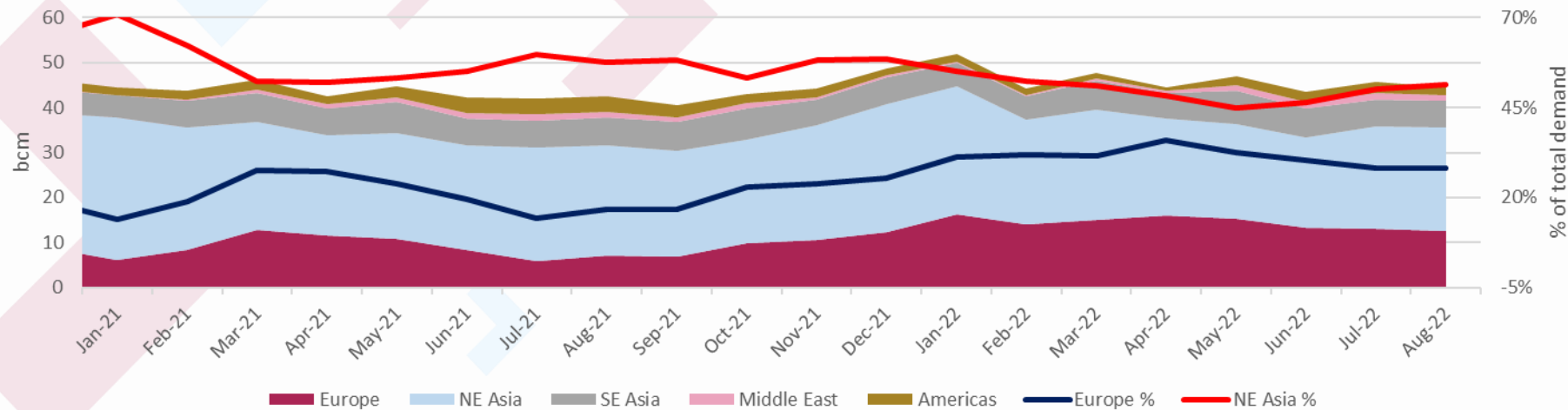


4028 TWh EU gas consumption

LNG demand by regions (Jan-Aug)



LNG demand of the world (2021-2022)



## 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)