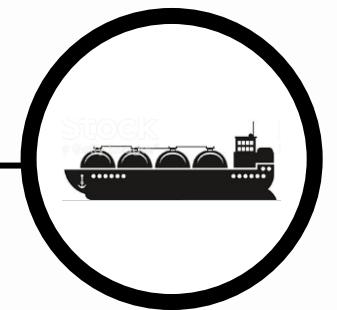


Global & Regional Market Analysis

Natural Gas

March 2022

20/04/2022





Stories of the recent weeks

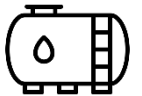
European gas prices spiked at the beginning of March as Russia continued the invasion of Ukraine and as European nations considered sanctions against Russia. Russian gas supplies had been “deliberately exempted” from sanctions said the German Chancellor.



Russian gas supplies to Europe via key pipelines remained stable during March, no key gas infrastructure was damaged. Russia plans to accept payment only in rubles for gas from ‘unfriendly’ countries, according to EU&G7 it would breach existing supply contracts.



Both IEA and the EC published ambitious plans to reduce gas imports from Russia in 2022. EC’s proposal also mandates that EU storage capacity be 80% full by 1 Nov 2022 and empowers EU regulators to order the disposal of storage rights in case of risk.



EU plans to replace Russian supplies among others by 50bcm LNG imports. LNG sendout to EU remained strong in March, US LNG imports doubled in Q1. The US and EU agreed that EU would receive further 15 bcm LNG in 2022.

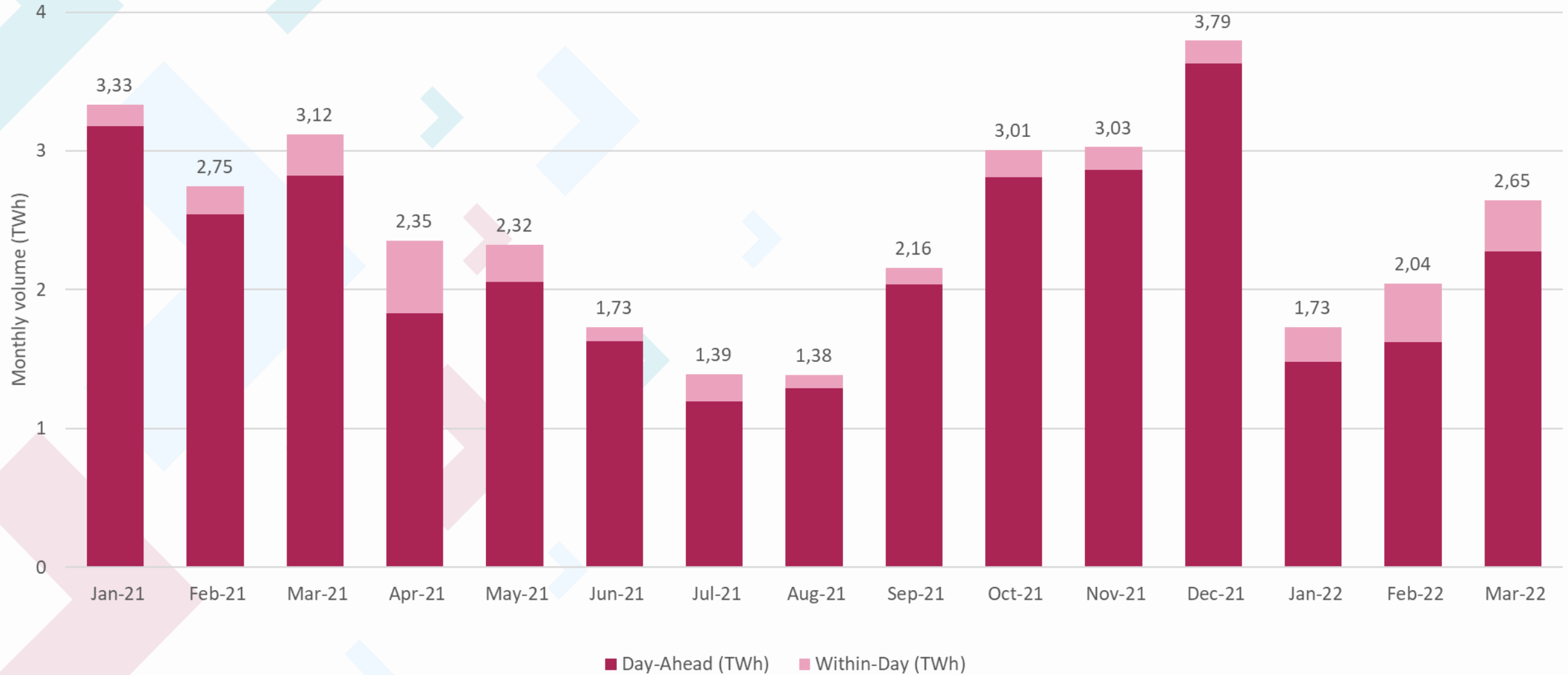


Major oil & gas companies walked away from Russian energy projects, NS2 development company went broke. EUA prices tumbled on fears of energy sanctions on Russia, while oil prices rallied to 14-year high after US ban on Russian oil and other energy imports.



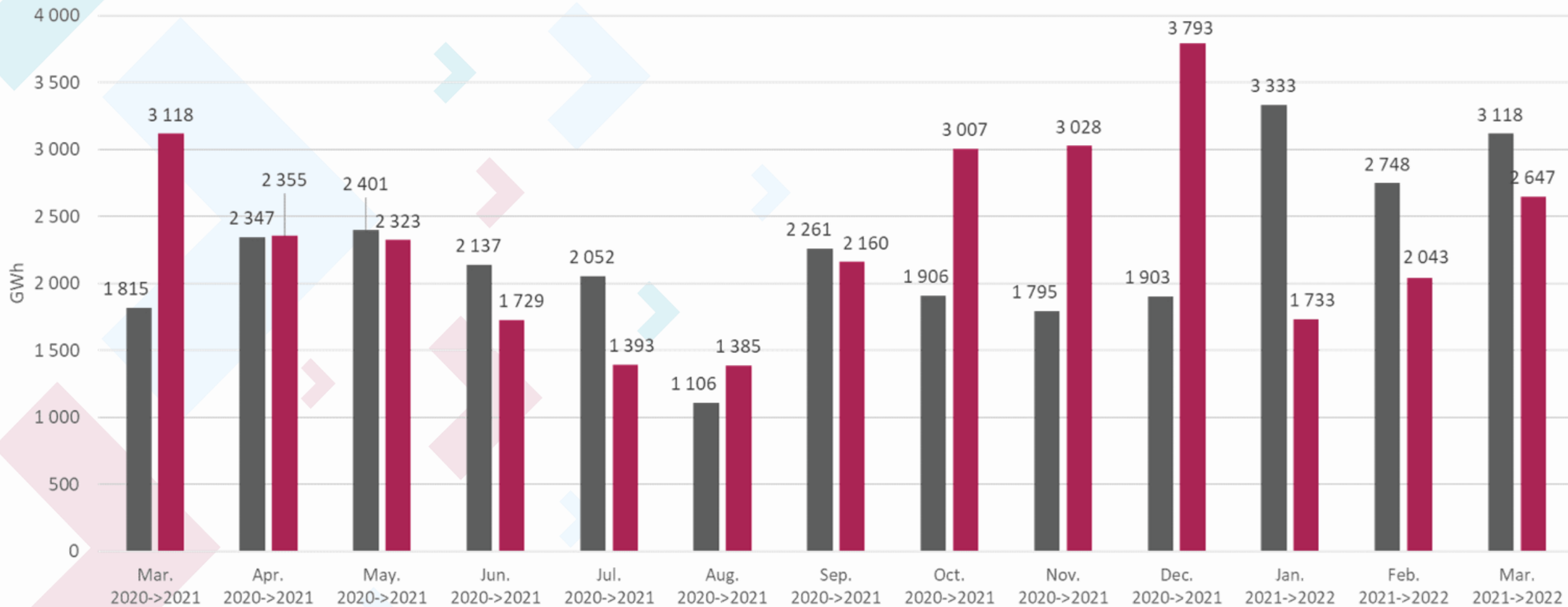
CEEGEX monthly traded volumes

Source: CEEGEX



CEEGEX monthly traded volumes year-to-year

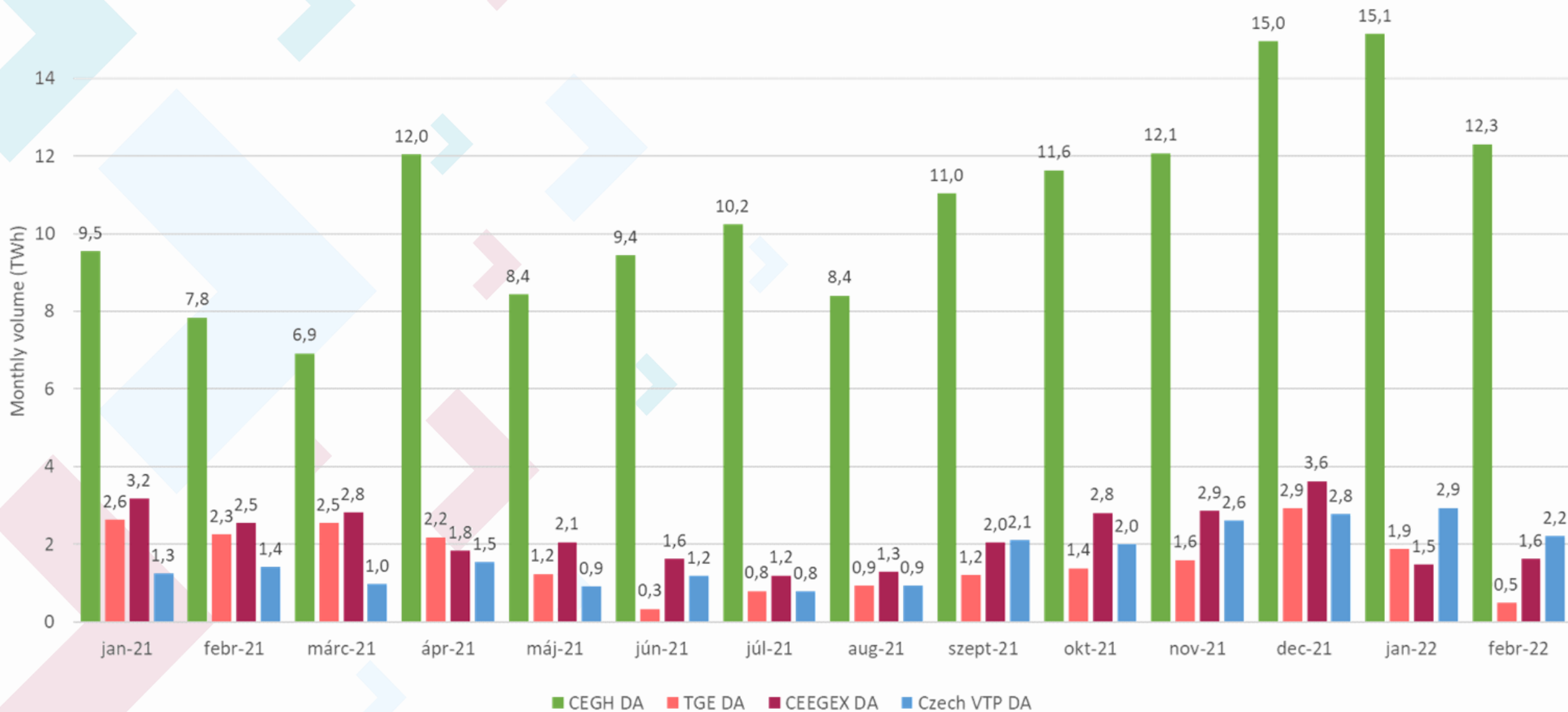
Source: CEEGEX



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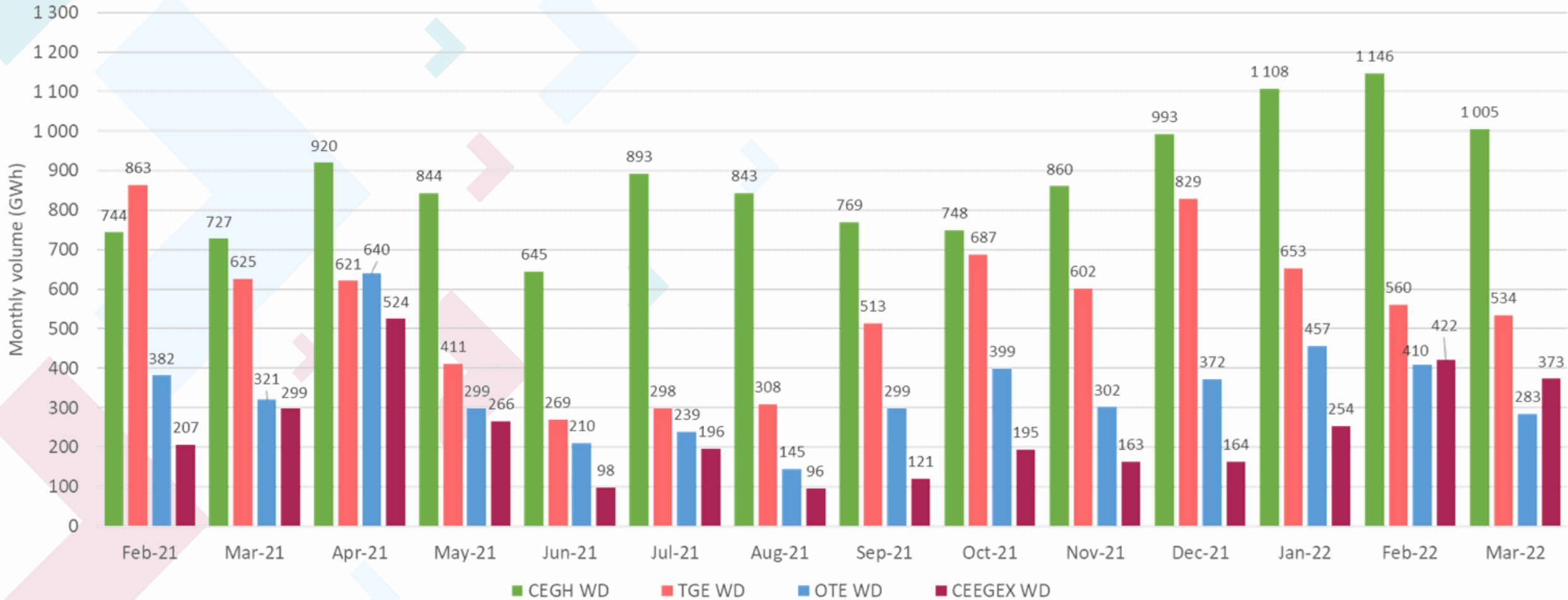
Regional scope – Day-ahead

Source: CEEGEX, EEX, TGE



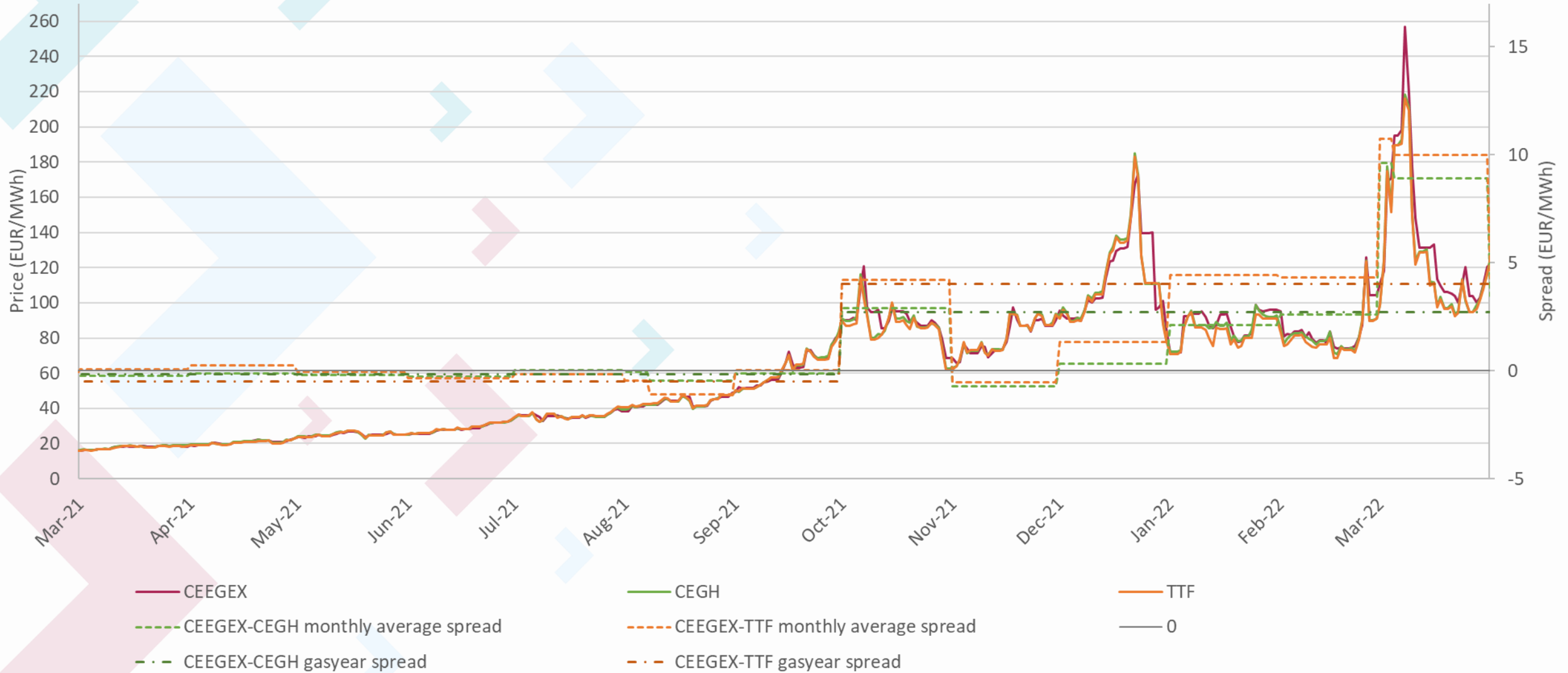
Regional scope – Within-Day

Source: CEEGEX, EEX, OTE, TGE



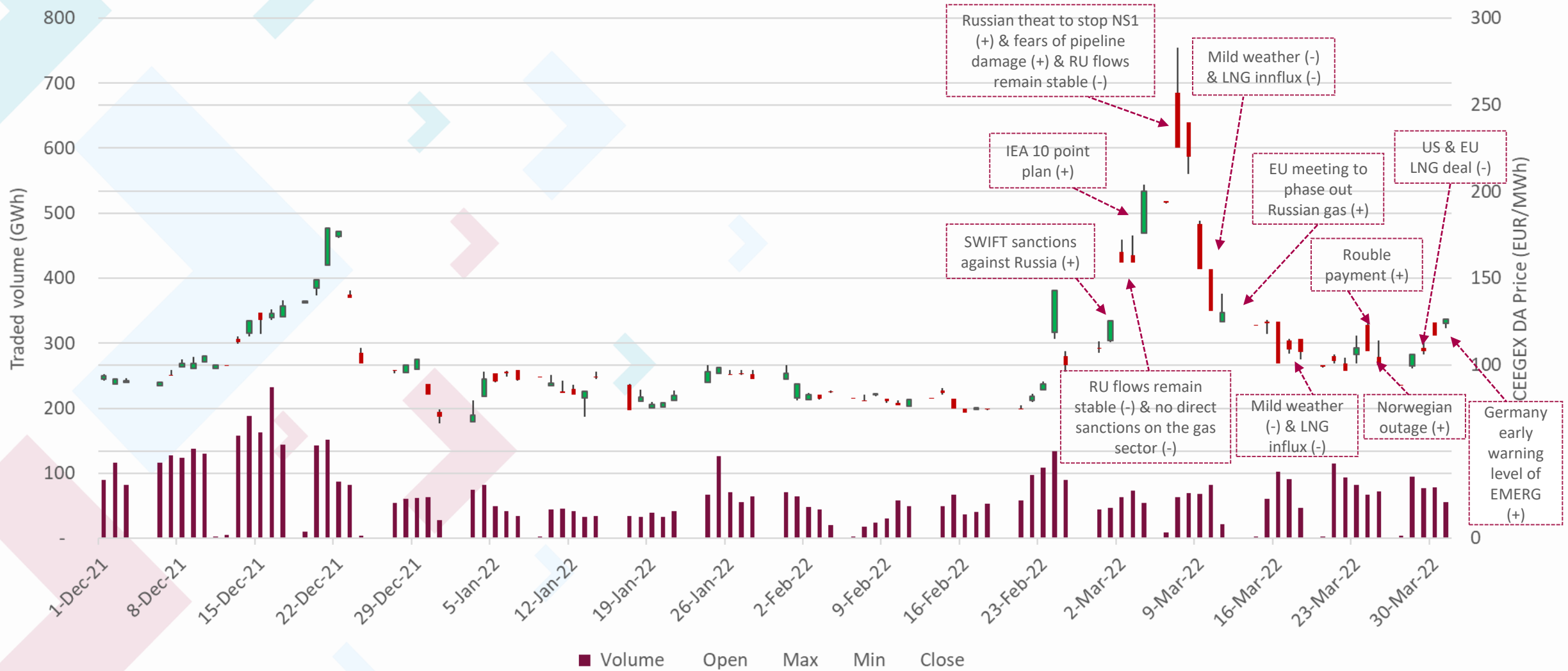
Regional prices and spreads

Source: CEEGEX, EEX



Japanese candles

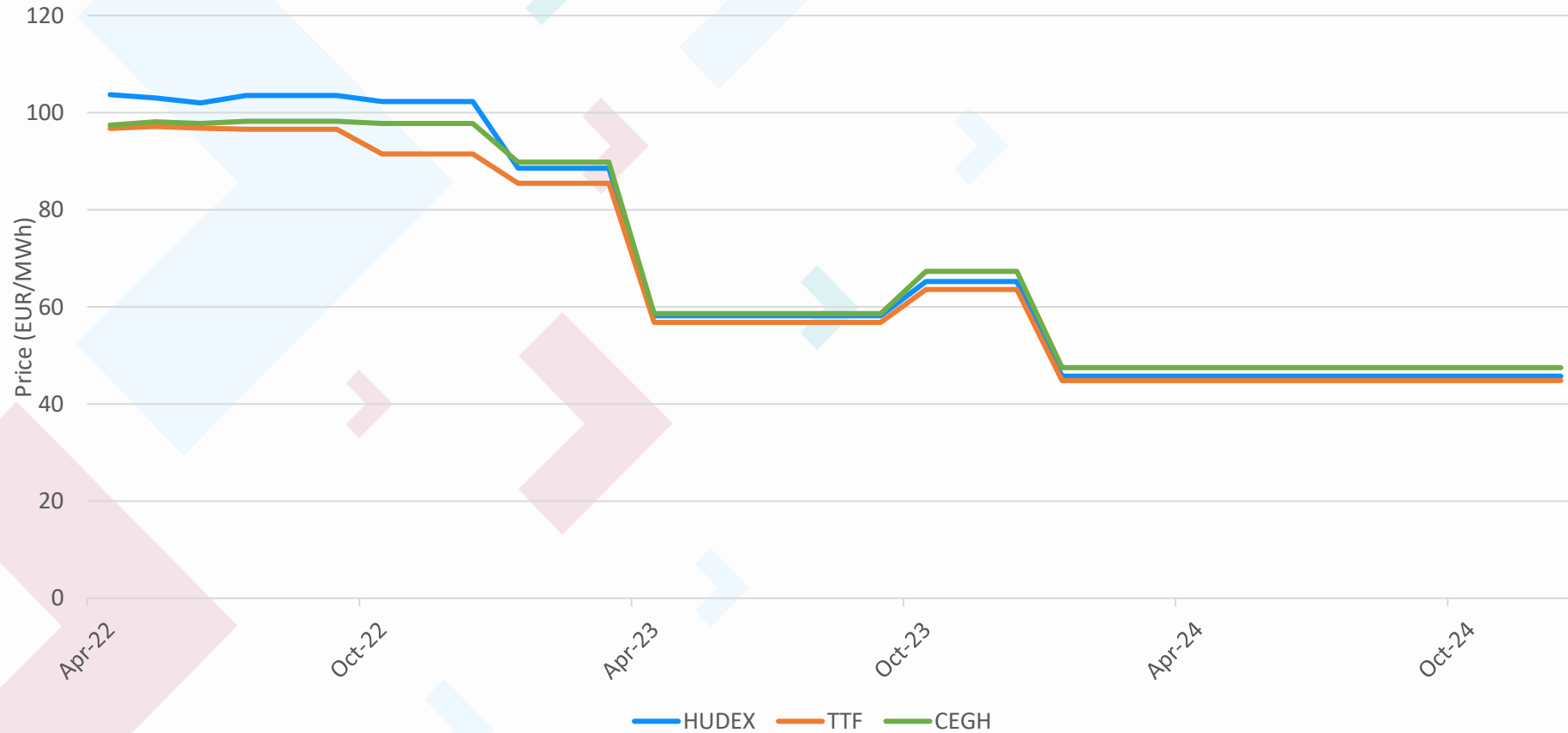
Source: CEEGEX, ICIS



Forward curve

Source: HUDEX, EEX

Forward curves on 21 March

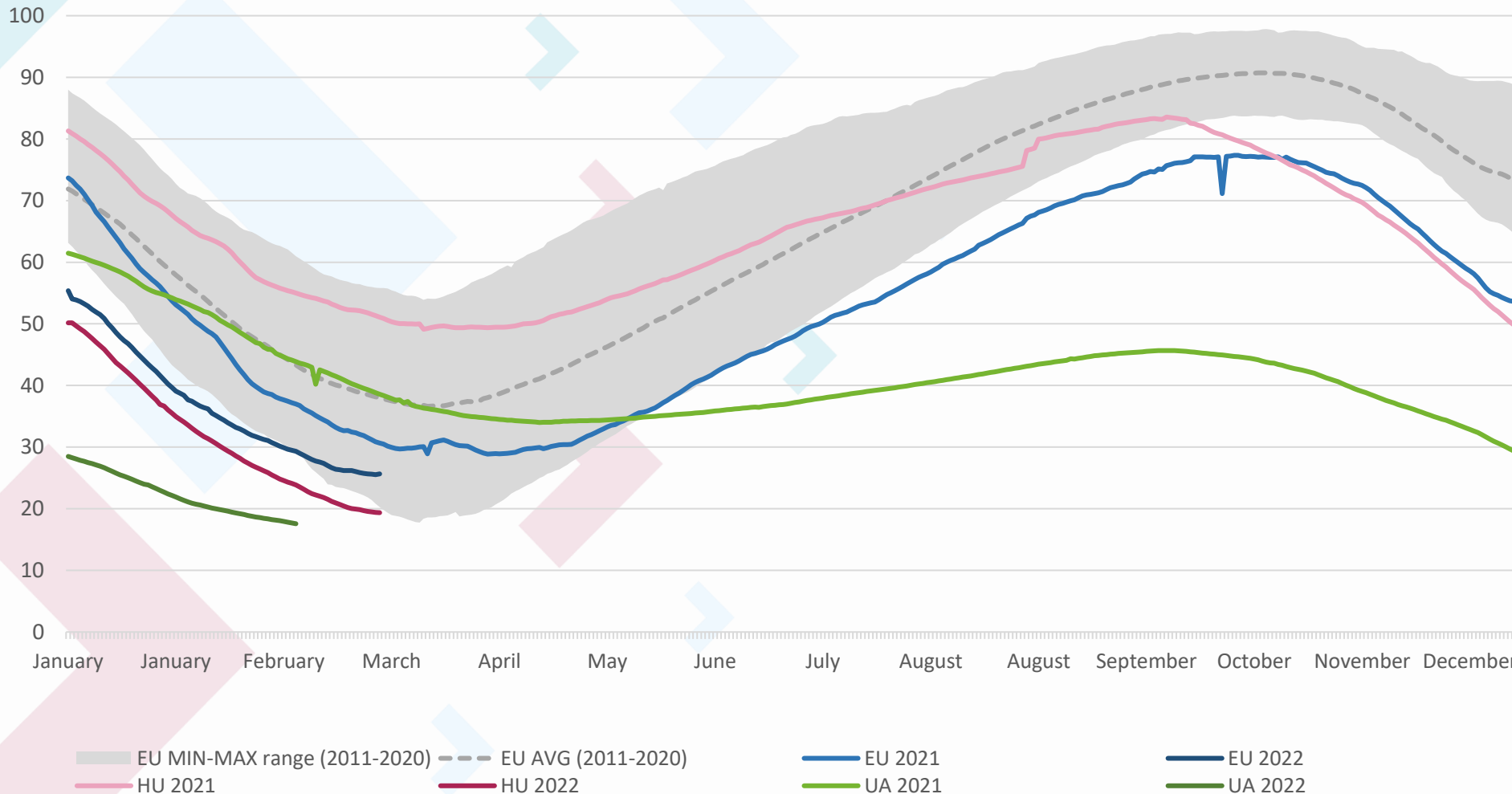


EXPERT OPINION:

- HUDEX forward curve follows the TTF and CEGH despite high volatility on gas markets.
- Summer-Winter spread is visible only for 2023 period, as high injection rates are expected this summer.

Gas storage level in EU, UA and HU

Source: AGSI



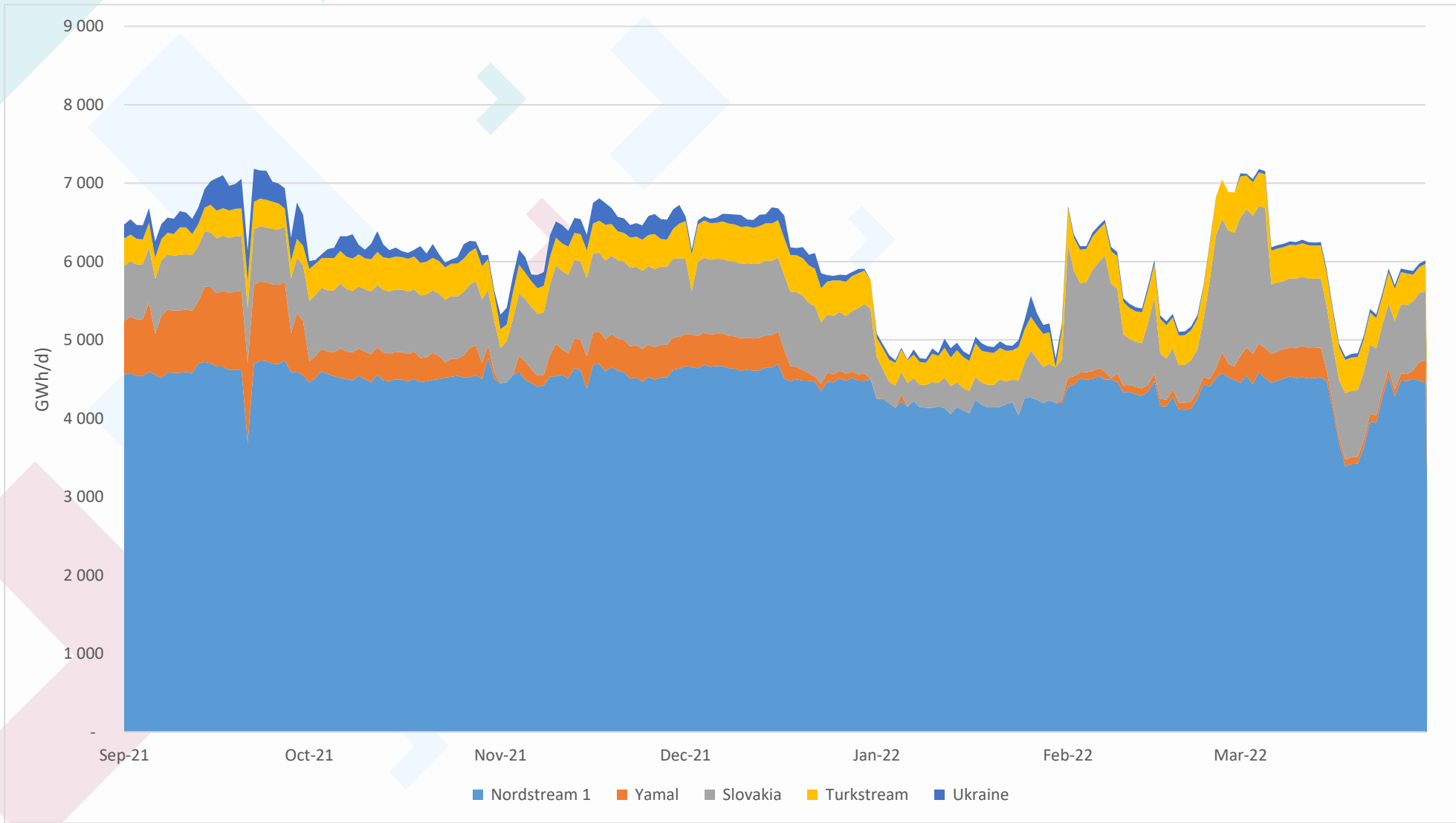
At the end of February Ukrainian storage operator temporarily halted withdrawals and suspended publishing storage data on its website in response to the emergency situation.

EXPERT OPINION:

- Due to mild, windy weather and high LNG influx withdrawals slowed down and European aggregated storage levels (excluding Ukraine) returned to their historical average values between 2011-2020.
- Current levels of Hungarian stocks are still below EU 10-year range.
- The injection period officially starts at 1 April, but the current high price environment might not incentivize injections, while ramping up stocks before the next withdrawal period would be crucial.

Gasflows from Russia

Source: ENTSOG

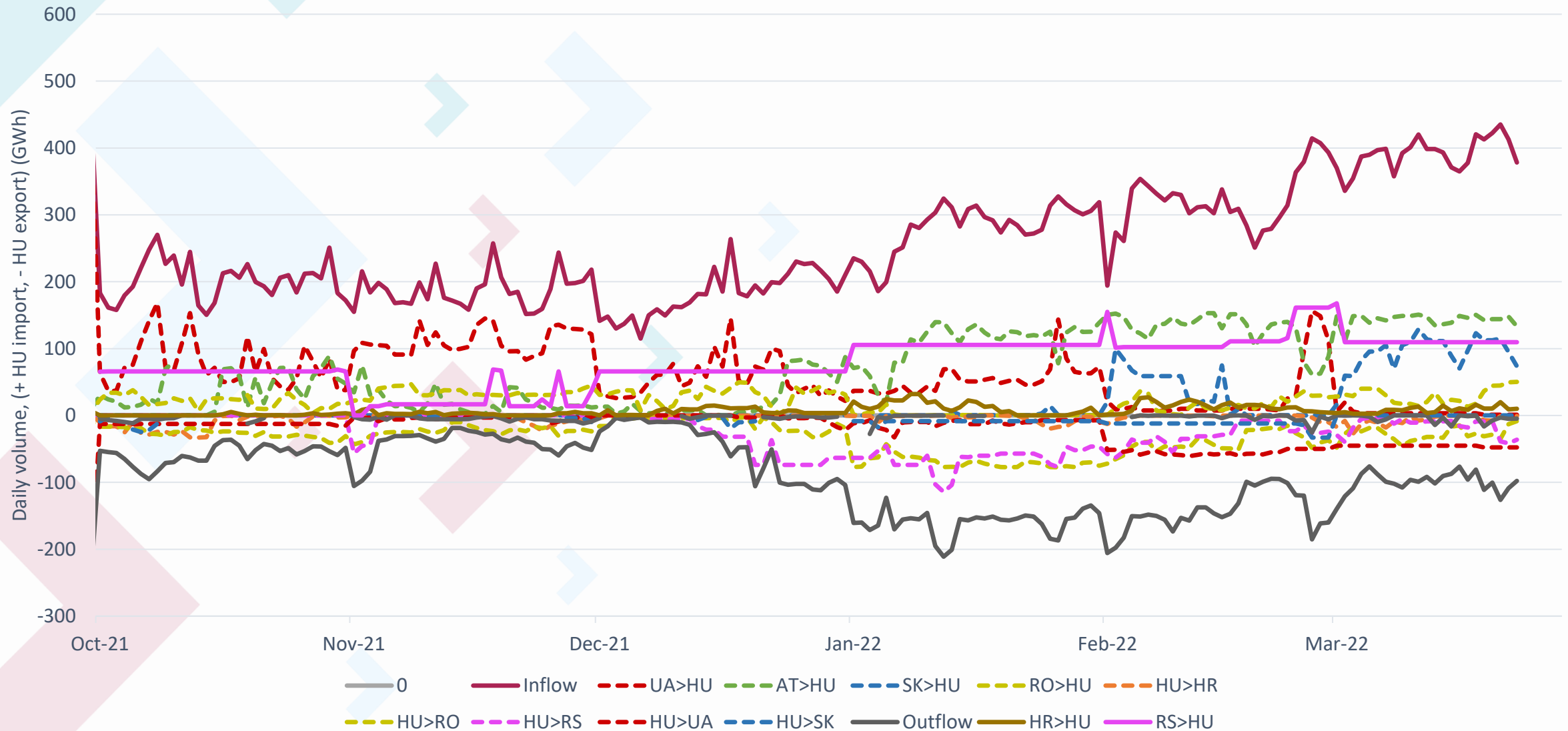


EXPERT OPINION:

- Russian supplies on the NS1 pipeline remained stable since the invasion of Ukraine except for a short decline from 18 March.
- Flows via Ukraine remained low.
- Yamal flows strengthened in March, but remained low relative to 2021.
- Supplies via Slovakia ramped up in February and after Russia's invasion on Ukraine.
- Deliveries via TurkStream also remained strong.
- The price spikes came despite flows from Russia via key pipeline routes remaining relatively strong.

Cross-border allocations

Source: RBP



Regulatory updates - March

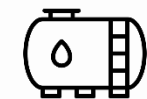
Sources: EC, ICIS, Lexicology, IEA

REPowerEU: EC published a 7-point plan to make Europe independent from Russian fossil fuels well before 2030, starting with gas. It aims for a **2/3 reduction in EU gas imports from Russia** in 2022.

1. Increase imports of **LNG** by 50 bcm
2. Increase **non-Russian pipeline** gas imports by 10 bcm
3. Increase **biomethane** production by 3.5 bcm
4. EU-wide **energy saving** to cut gas demand by 14 bcm
5. **Rooftop solar** to reduce gas demand by 2.5 bcm
6. **Heat pumps** to reduce gas demand by 1.5 bcm
7. **Reduce gas demand in the power sector** by 20 bcm by deployment of wind and solar

IEA's 10-Point Plan: A list of measures if implemented this year could **bring down gas imports from Russia by over 1/3** while still lowering emissions.

1. **No new gas supply contracts with Russia**
2. Replace Russian supplies with gas from **alternative sources**
3. Introduce **min. gas storage obligations** to enhance market resilience
4. Accelerate the deployment of **new wind and solar** projects
5. Maximise generation from existing dispatchable low-emissions sources: **bioenergy and nuclear**
6. Enact short-term measures to **shelter vulnerable consumers** from high prices
7. Speed up the replacement of gas boilers with **heat pumps**
8. Accelerate **energy efficiency improvements** in buildings and industry
9. Encourage a **temporary thermostat adjustment** by consumers
10. Step up efforts to **diversify and decarbonise sources of power system flexibility**



Minimal gas storage obligation: The plan mandates that EU storage capacity be **80% full by 1 November 2022**. Earlier, the EC had aimed for a 90% filling target by 1 October. The proposal also empowers EU member states' regulators to order the **disposal of storage rights belonging to persons who may put at risk the member state** or the EU's security of supply, with the aim of preventing a repeat of summer 2021 when Gazprom did not replenish its European storages ahead of the winter.

Fact check:

- The two plans are broadly similar, although the **EC is significantly more ambitious** in terms of EU LNG imports and storage injections. Overall, the achievement of the plans looks **challenging**.
- The **LNG target**, is potentially impractical, but some **30 bcm** is achievable.
- Increase in non-Russian pipeline imports could possibly be achieved with **supply from Azerbaijan, Algeria, and Norway**.
- **Biomethane production** would need to increase by the end of 2022 in the EU alone by **120% YoY**.
- 20 bcm less natural gas consumption in the power sector might be possible with the **combination of renewables, nuclear and coal**.
- Exactly how much gas will be reduced by energy efficiency measures and new solar PV installations is **hard to predict**.
- **Gas production** in the EU is likely to **decline** even if production at Groningen is preserved.
- The reduction of Russian imports would **breach TOP obligations**.
- **Injections** between 1 April and 1 October 2022 need to be around **20-25 bcm higher** than in the same period in 2021 to reach 90%.