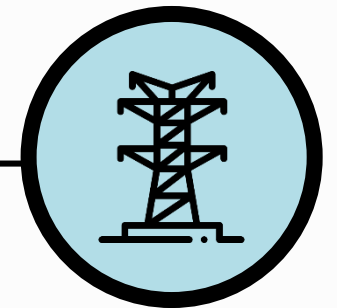


# Global & Regional Market Analysis

Natural Gas

October 2020

*16/11/2020*





# Stories of the recent weeks

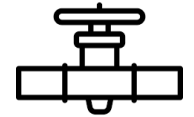
A physical damage on the pipeline resulted unplanned outage on AT-HU interconnector HAG, thus with the maintenance the Austrian import capacity decreased and then ceased between 21<sup>st</sup> and 29<sup>th</sup> October



CEEGEX and CEGH DA prices surpassed below their TTF peer mainly due to Norwegian outage at production facilities and low LNG inflow



Storage withdrawals started slowly in mid September, but high increase can be seen across Europe from mid October partly boosted by favorable spot-Q1 spreads

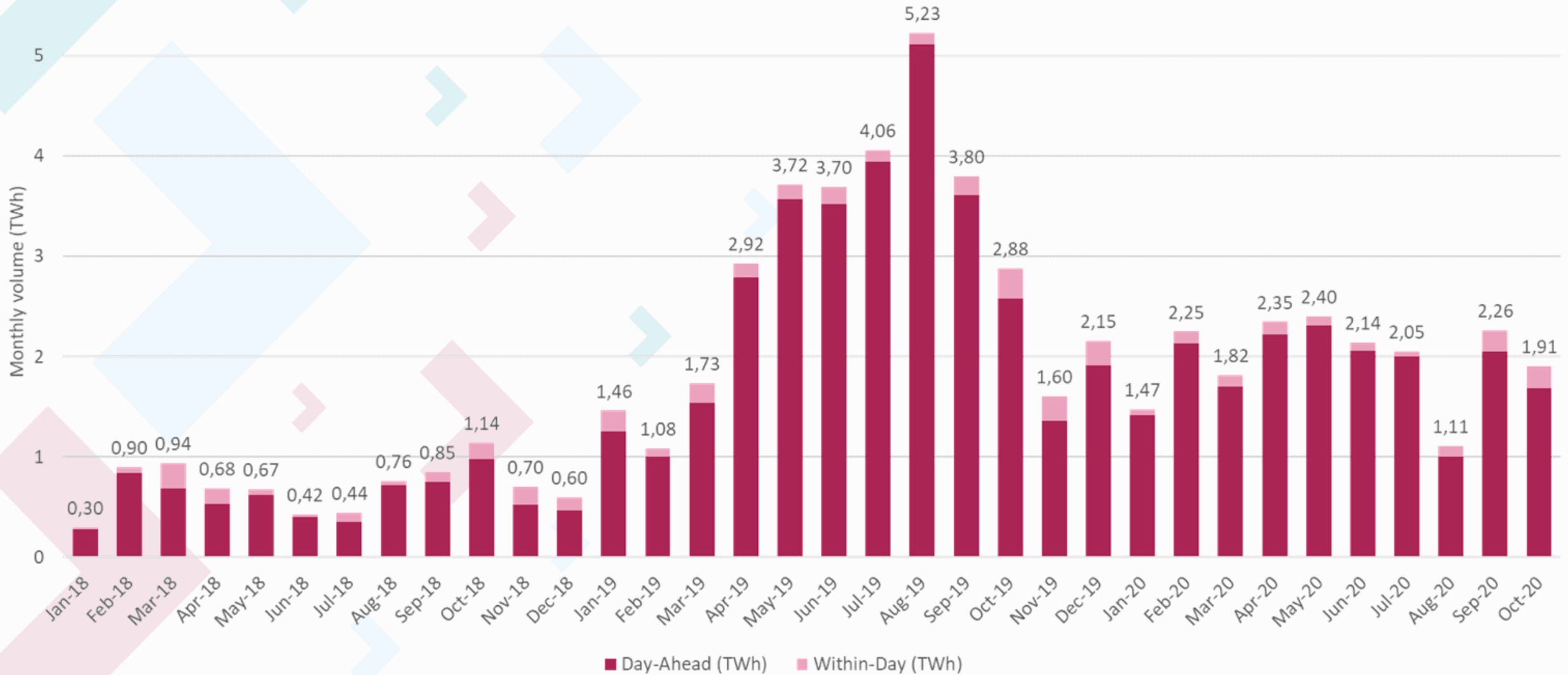


Croatia's first FSRU Golar Viking arrived off the coast, thus it's on schedule to start operation in 2021 Q1



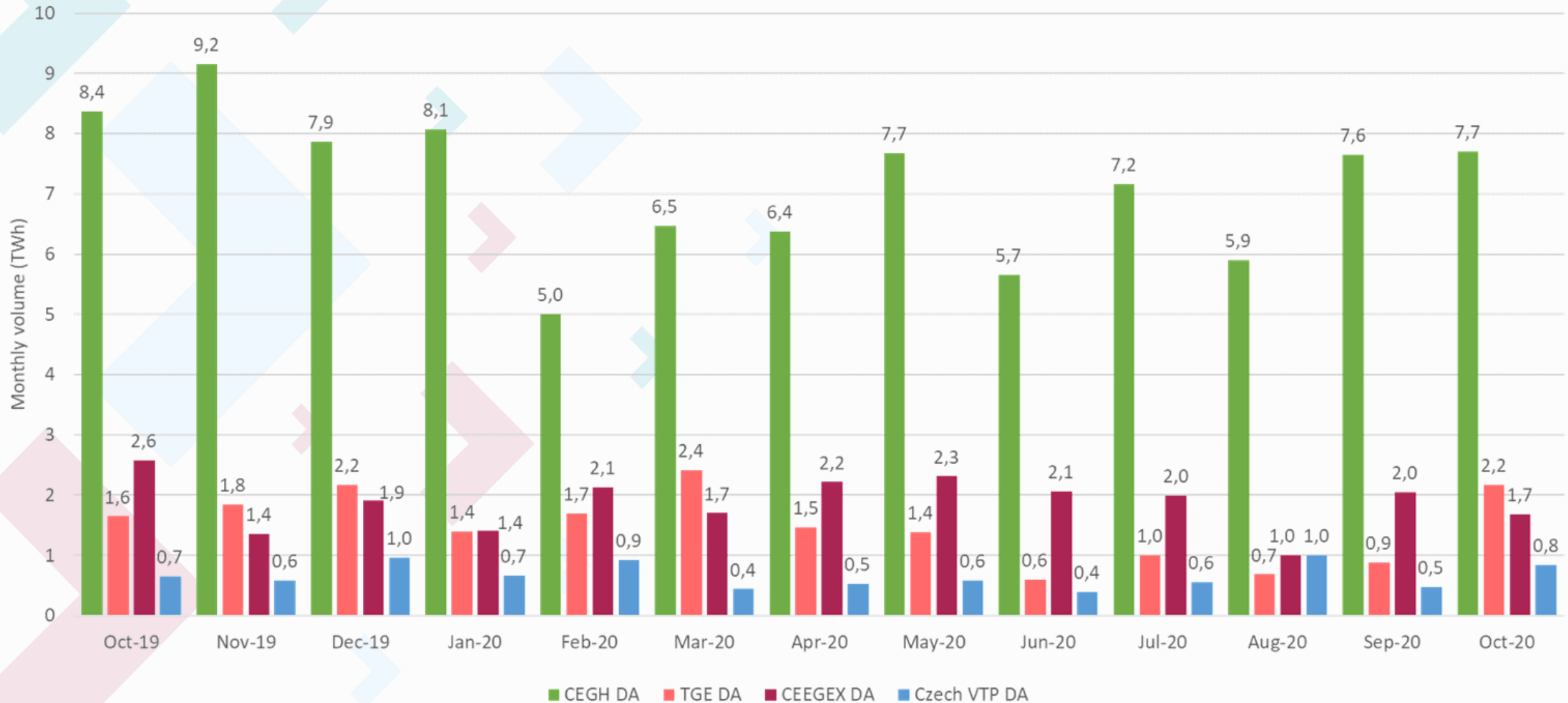
# CEEGEX monthly traded volumes

Source: CEEGEX



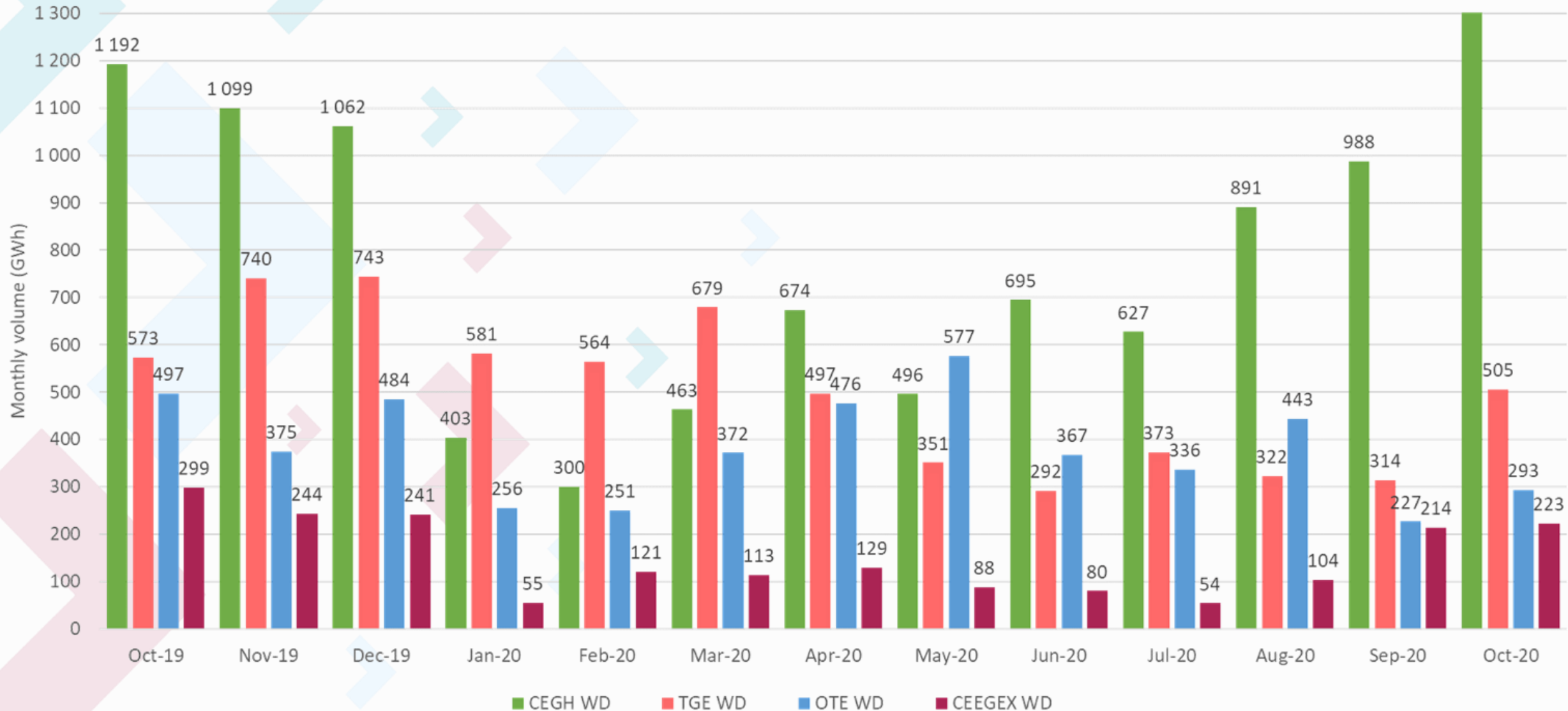
# Regional Day-Ahead monthly volumes

Source: EEX, TGE, CEEGEX



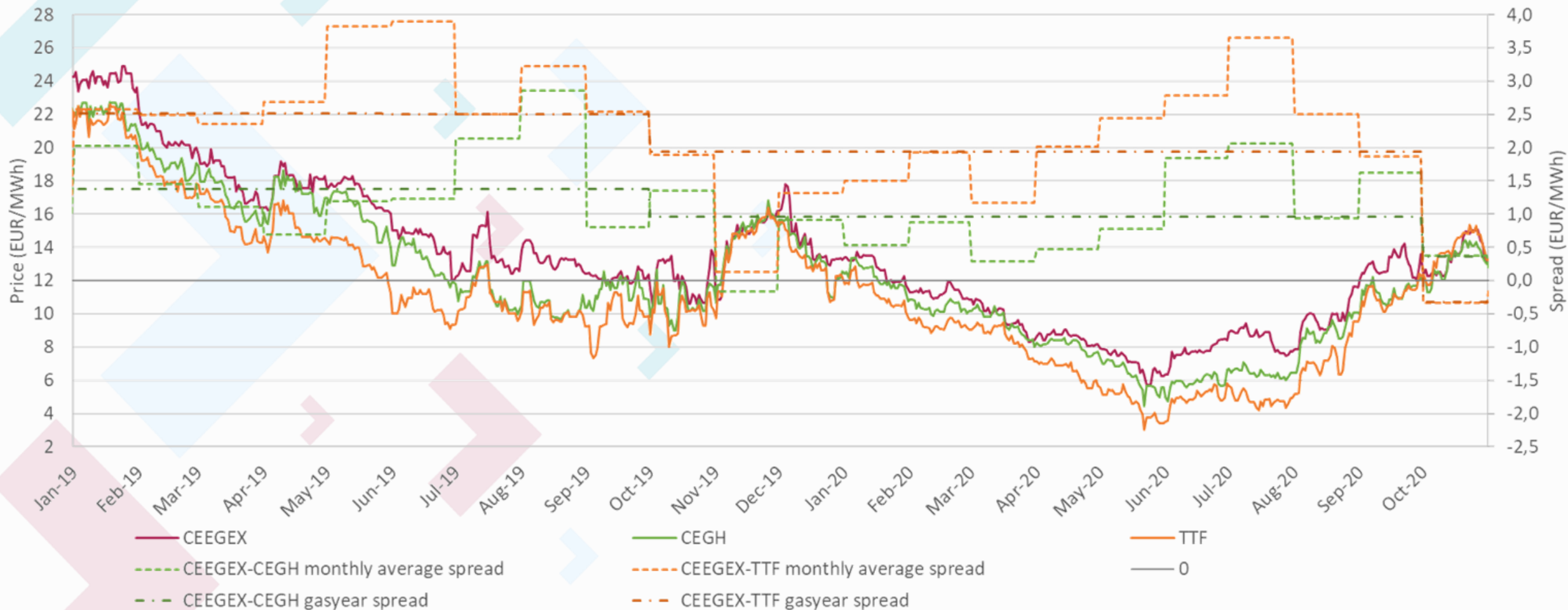
# Regional Within-Day monthly volumes

Source: CEGH, TGE, OTE, CEEGEX



# Hungarian and benchmark spot gas prices

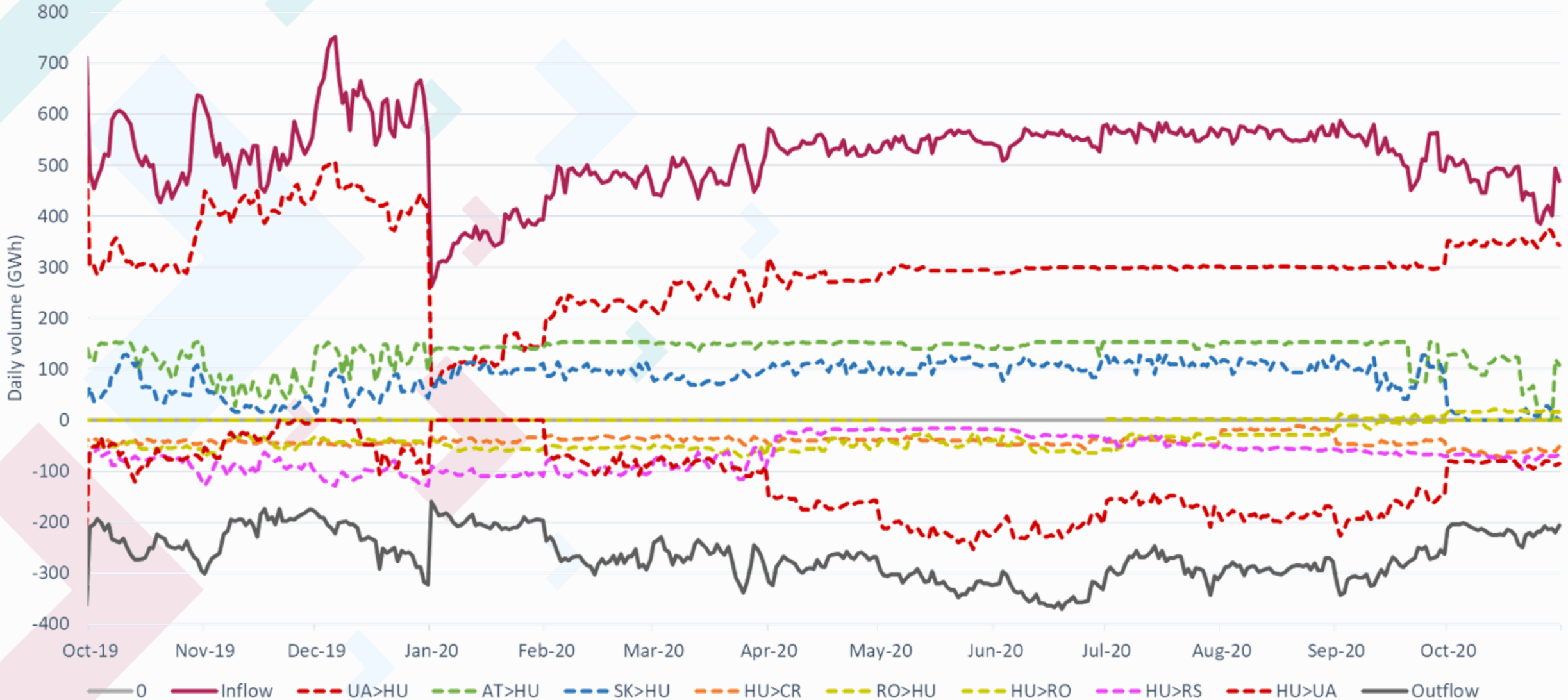
Source: EEX, CEEGEX



Analyst view: just like last October, CEEGEX spot prices crossed CEGH and TTF prices multiple times in October, while overall CEGH became the cheapest gas exchange in Europe

# Gas flows on Hungarian cross-border points

Source: FGSZ IP

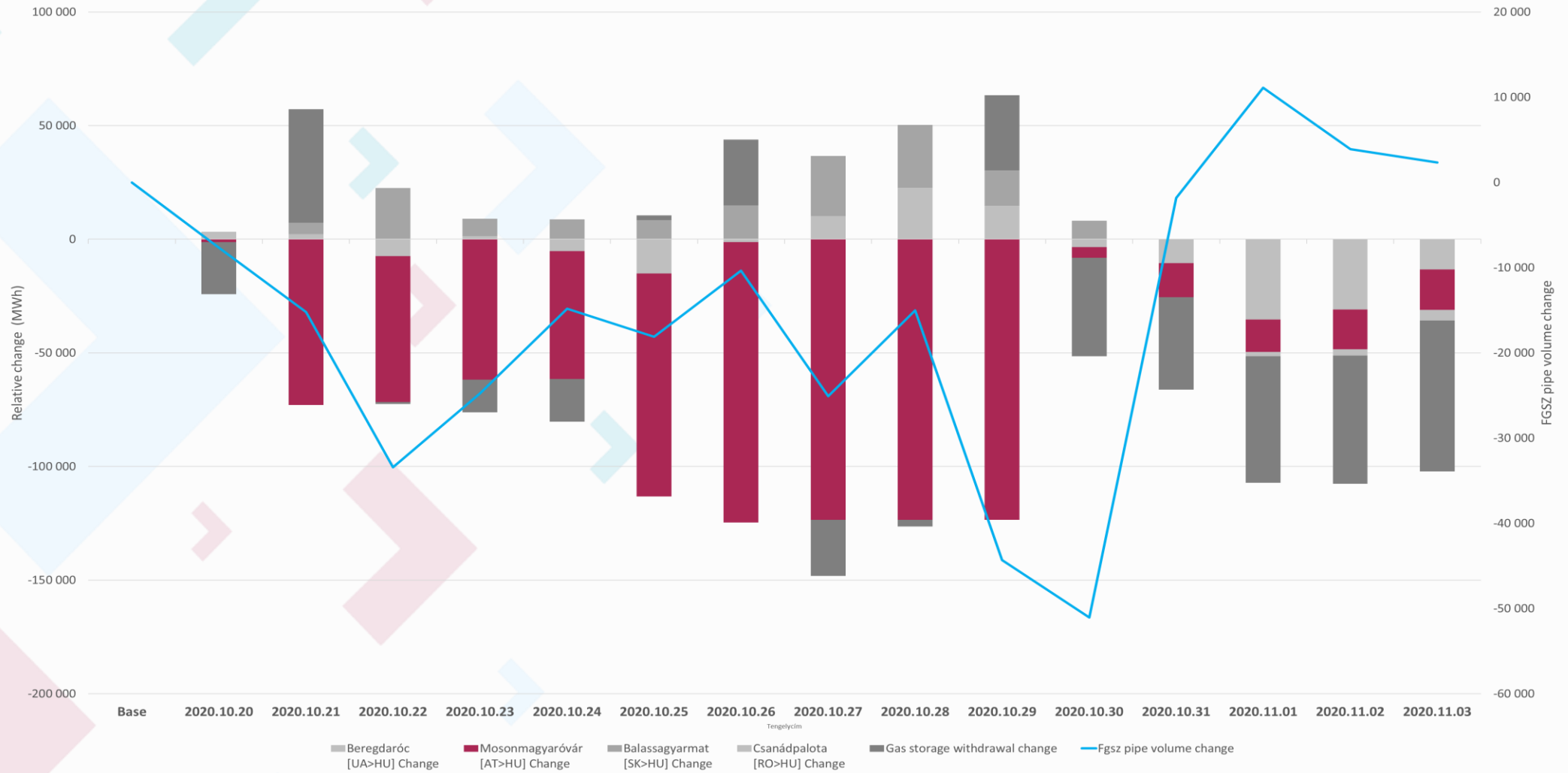


Disclaimer: This document contains analyst opinions, which don't necessarily represent the official views of HUPX Group or any of its subsidiaries.



# ATHU interconnector outage

Source: FGSZ IP, AGSI

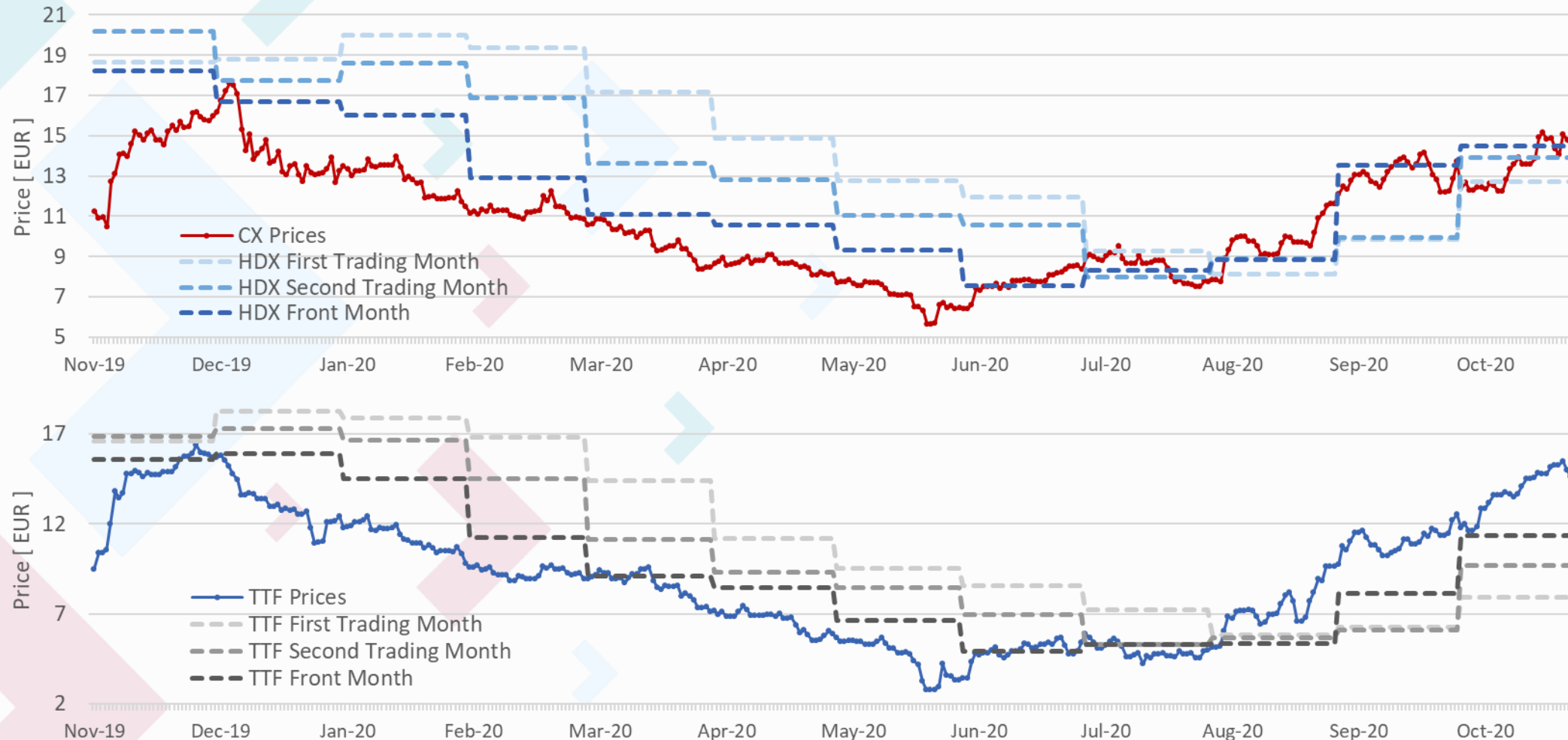


The base point is the volume of 19.10.2020. The following columns are the relative changes by the base day.



# Monthly vs Spot Prices on CEEGEX, HUDEX & TTF

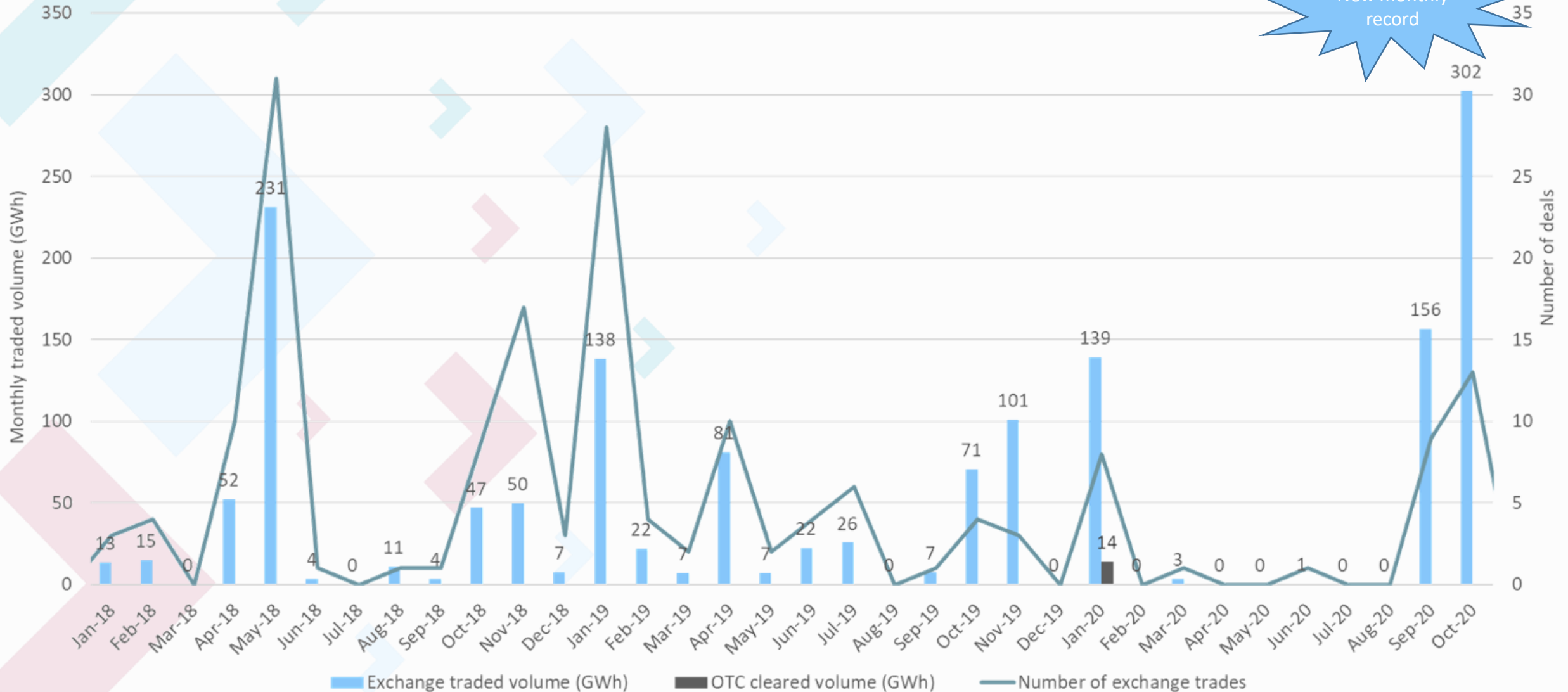
Source: EEX, HUDEX, CEEGEX



Due to the uncertainty and the oversupply of gas, futures prices have moved further away from spot prices during the pandemic and in recent months prices have come closer to each other again

# HUDEX Natural Gas Segment

Source: HUDEX

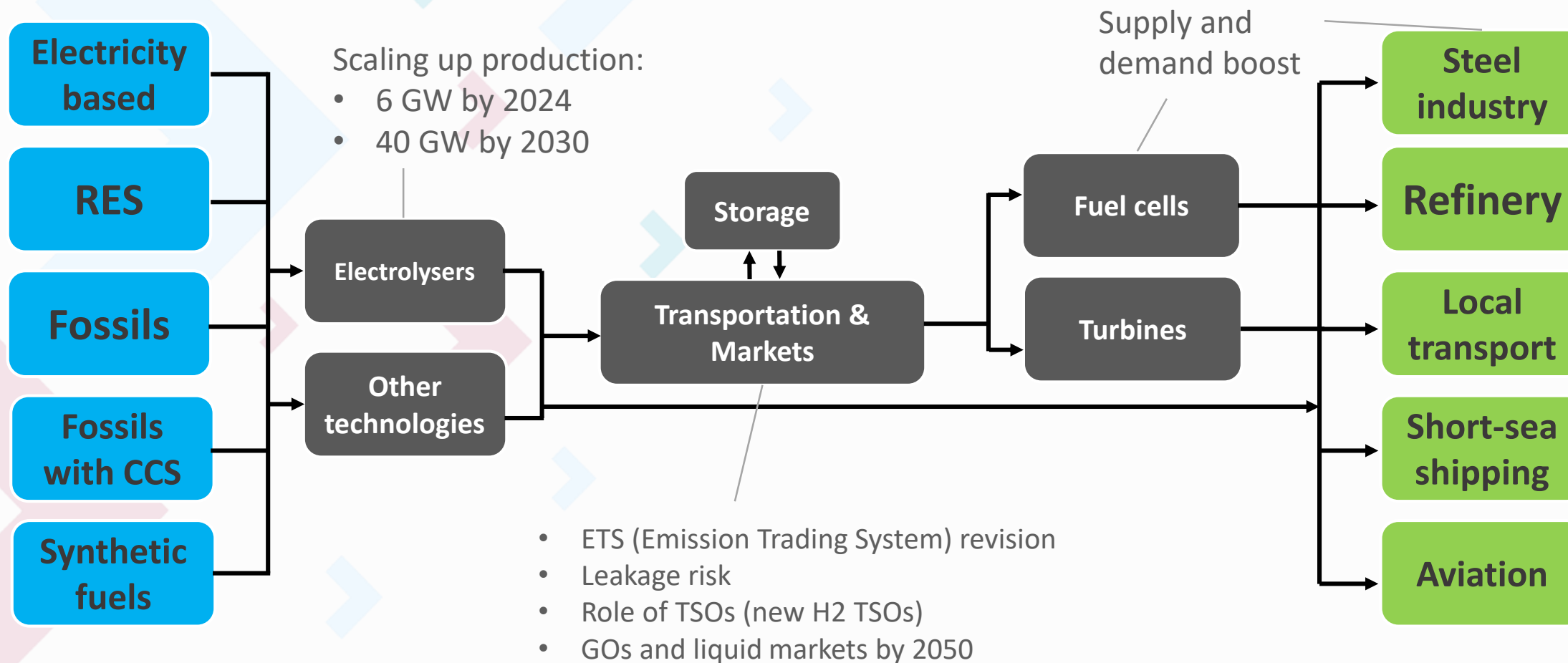


New monthly record

# EU Hydrogen Strategy

Main goals are the decarbonisation and become global leaders on green energy market:

- Cost competitive by 2030
- €180-470 + €3-18 billion investments by 2050



# National hydrogen strategies

## ■ Germany

- Germany has earmarked €9 billion by 2030.
- Develop a "home market" for hydrogen technologies (5 GW)
- Enhance the transport and distribution infrastructure
- Establish international hydrogen markets and cooperation
- Further develop and secure quality infrastructure for hydrogen production, transport, storage and use and create confidence

## ■ France

- Provides for an investment of €7.2 billion by 2030 and a hydrogen production capacity of 6.5 GW by 2030.
- 1.5 billion euros will be spent on the construction of electrolysis plants, which will later be powered by renewable energy.
- Almost one billion euros is blocked until 2023 for the development of hydrogen-powered heavy trucks.

## ■ Spain

- Madrid calculates that its hydrogen ambitions will cost €8.9 billion by 2030. It expects most of this to come from the private sector but may support projects that create jobs.
- By 2030, Spain aims to install 4 GW-worth of the electrolysers needed.
- It intends to hit the ground running with 300-600 MW by 2024. The EU wants 6 gigawatts by then.