

Global & Regional Market Analysis

Natural Gas

July 2019

01/08/2019



Stories of July

Hawkish natural gas and CO₂ prices, but overallly with the bullish power prices a continued trend for coal-to-gas switch

European nuclear temporarily shutdowns in the summer heatwave, usage of gas-fired power plants grew



Slovakian-Hungarian gas flow upgrade



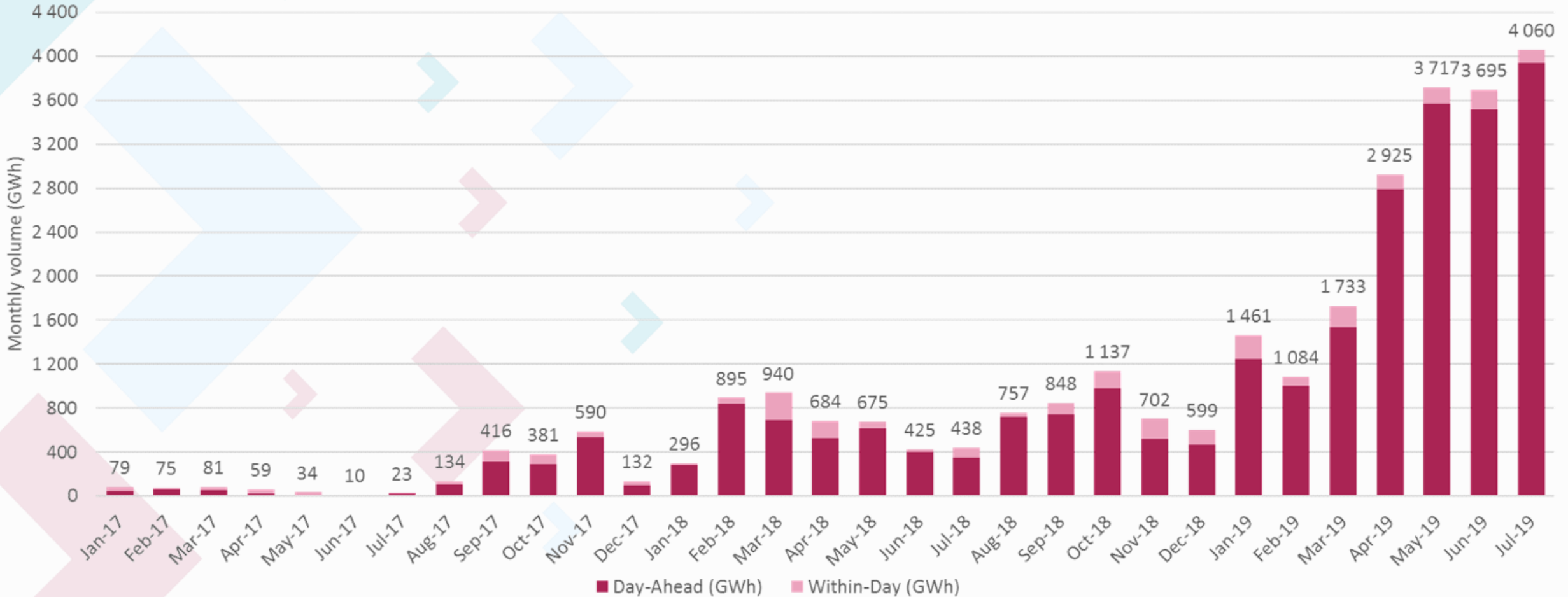
Capacity overbooking at the Austrian and Romanian gas interconnectors, meanwhile MEKH updated the regulation of the long term capacity booking of Ukrainian border point

Gas storages injections slowing down but still on the road as predicted with EU gas storages at 84% and Hungary at 80% levels



Spot market monthly volumes of CEEGEX

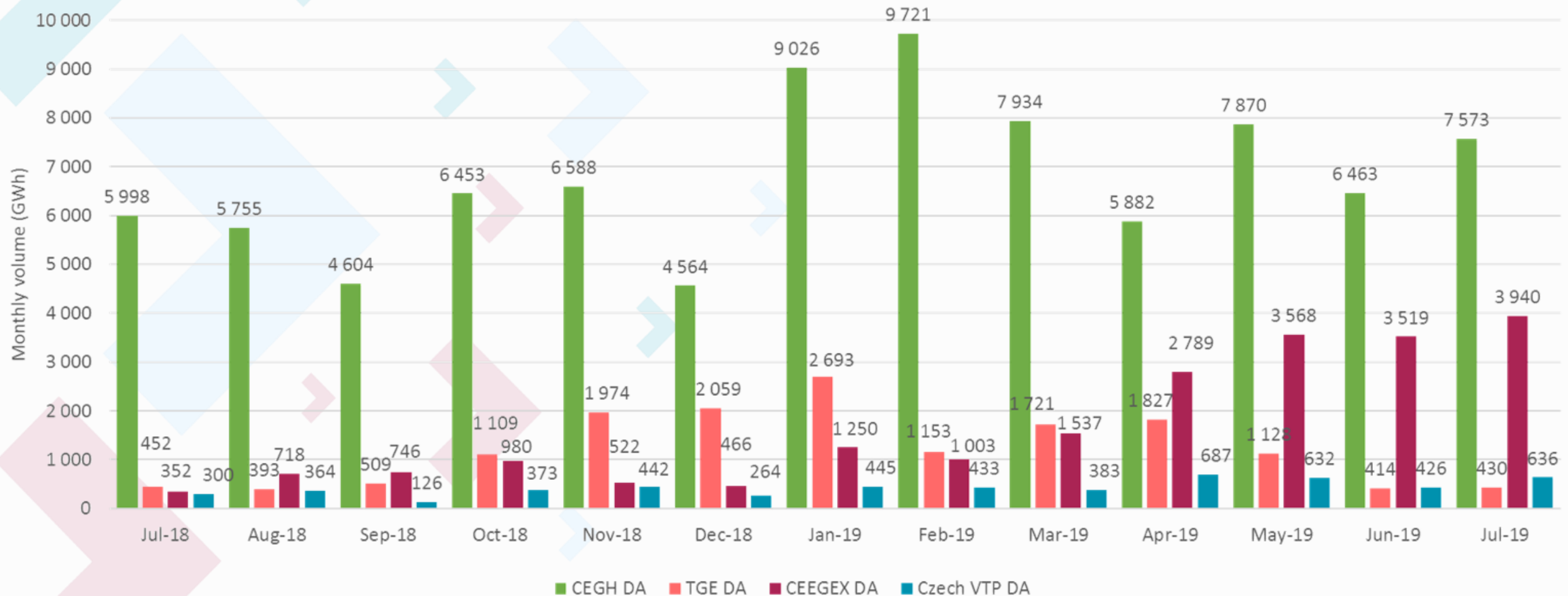
Source: CEEGEX



In July CEEGEX spot market volume surpassed 4 TWh and reached monthly record 5th time in 2019. In this year the liquidity of CEEGEX neglects the ordinary seasonal patterns

Regional Day-Ahead monthly volumes

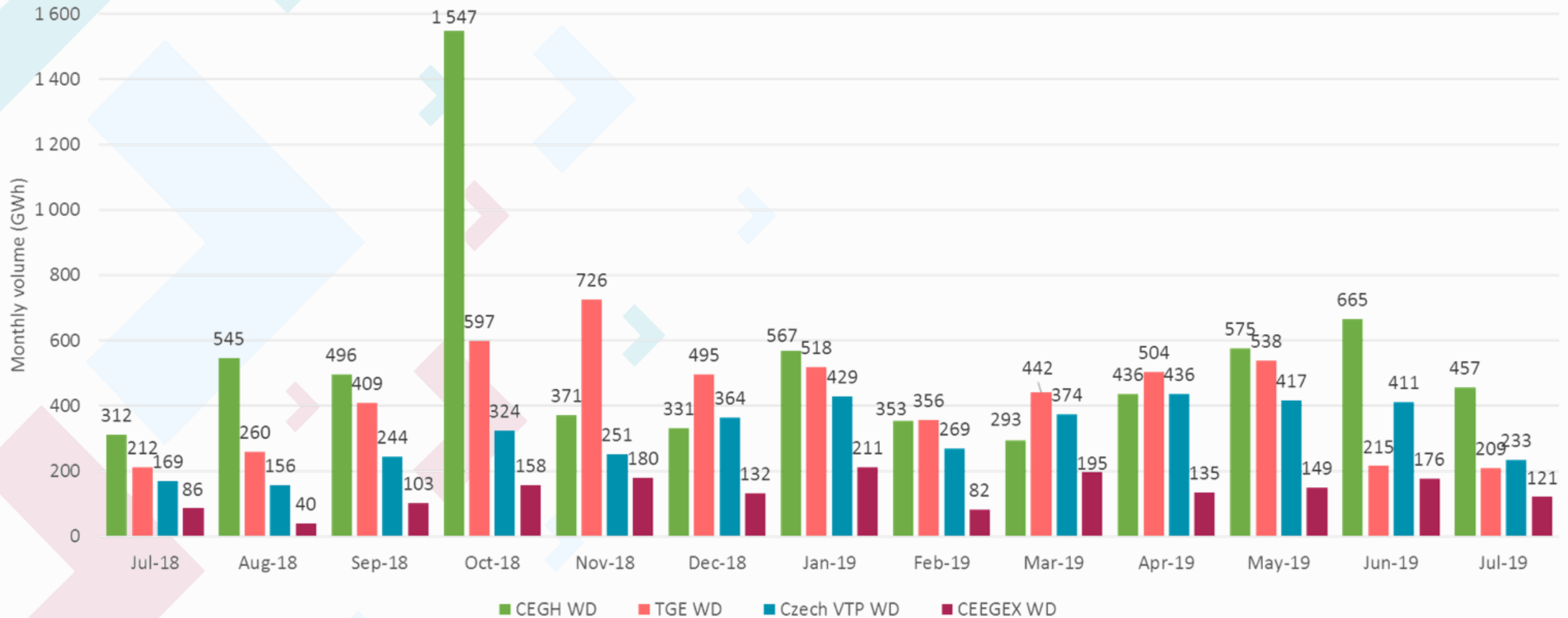
Source: CEGH, TGE, CEEGEX



CEEGEX is now the second largest gas exchange in the region for the fourth month in row and reached the level where CEGH was in 2016. While CEEGEX remain stable, other regional exchanges show seasonal pattern, thus CEEGEX liquidity could be even higher in the winter

Regional Within-Day monthly volumes

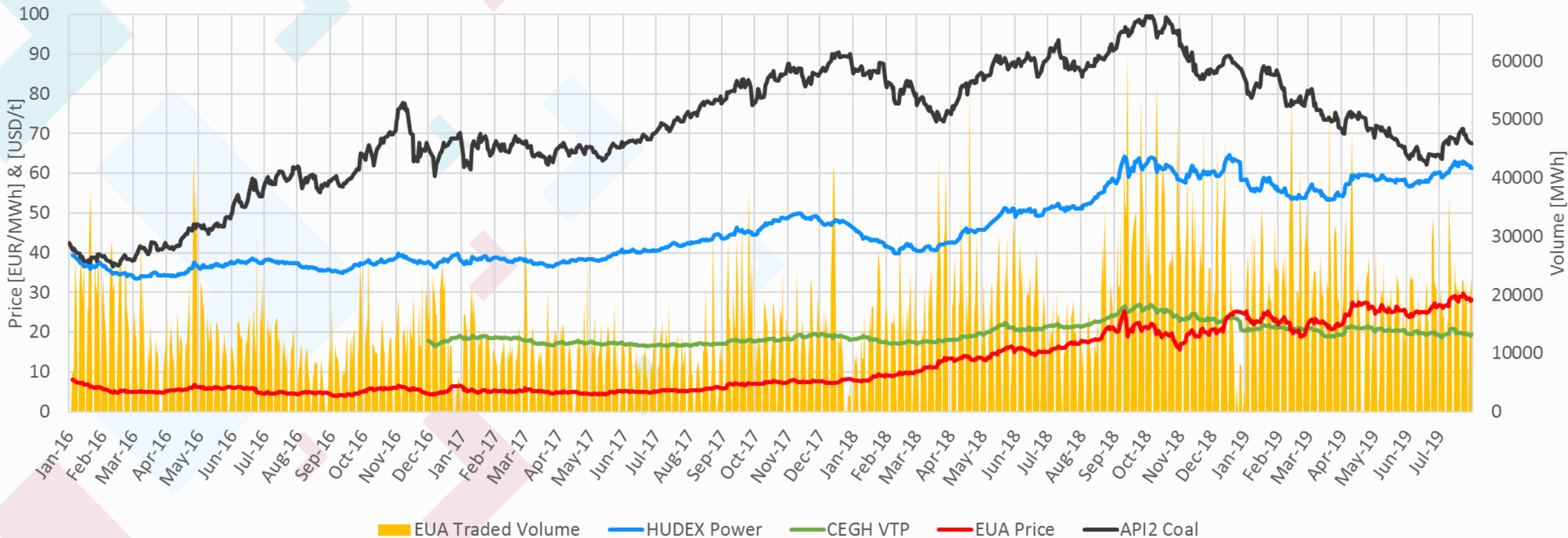
Source: CEGH, TGE, CEEGEX



CEEGEX Within-Day volumes fell in July mainly due to the lack of presence of the TSO, while the trading activity became larger of other members due to the stricter balancing rules

Front year commodity prices and EUA volumes

Source: PEGAS, HUDEX, Thomson Reuters



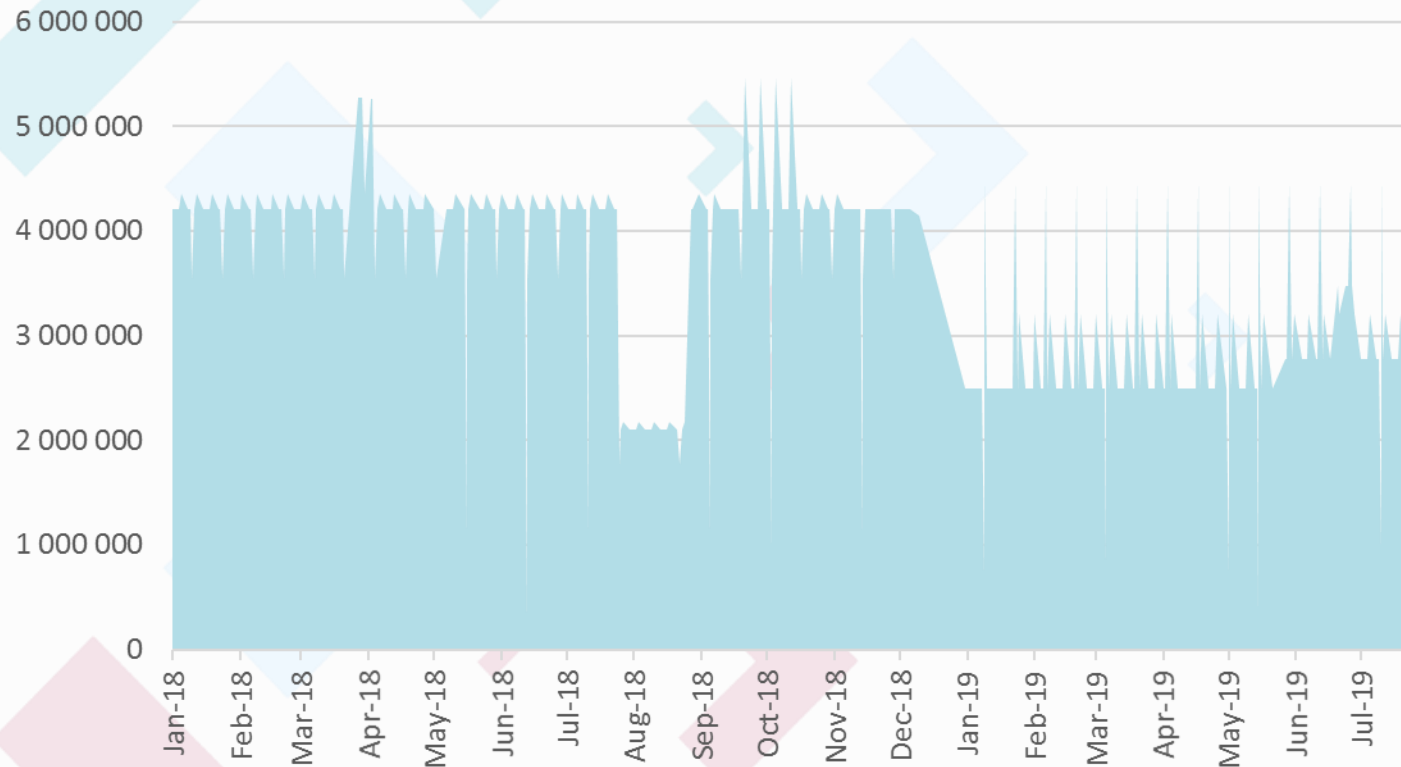
Correlation indices	Rate
EUA Price - HUDEX Power	0.93
EUA Price - CEGH VTP	0.70
EUA Price - API2 Coal	0.47
EUA Price - EUA traded volume	0.49
HUDEX Power - API2 Coal	0.68

From 2016 to present days there is a high correlation (93%) between EUA CO₂ prices and HUDEX power prices. The correlation between EUA prices & CEGH gas prices (70%) is higher than between EUA & API2 coal prices (68%), which likely changed only in the last two years

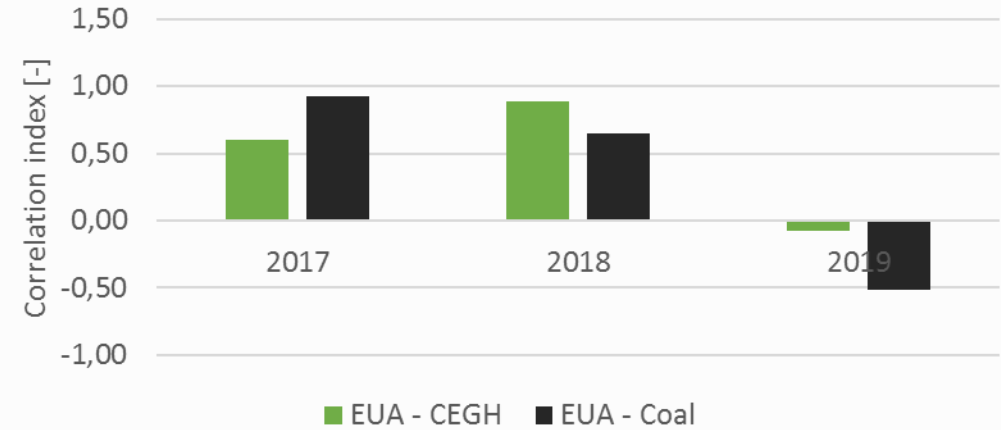
EUA auction volume and price trends

Source: PEGAS, HUDEX, Thomson Reuters

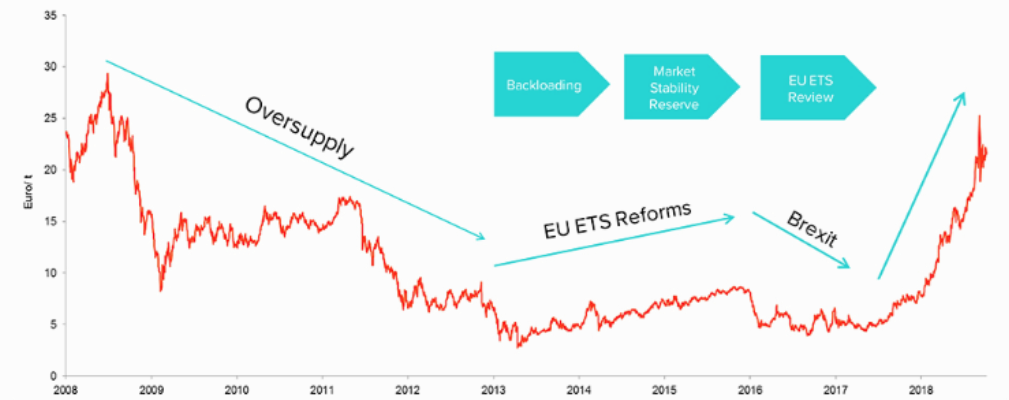
EEX EUA primary auction volume 2018-2019 [unit]



- The correlation of EUA CO2 and CEGH VTP natural gas prices grew over time while it decreased between EUA CO2 and API2 coal
- The main reasons behind the increase of EUA prices could be the end of the oversupply in 2013, the effects of the EU ETS reforms, and the further auction volume decrease in 2019



Carbon price development since 2008

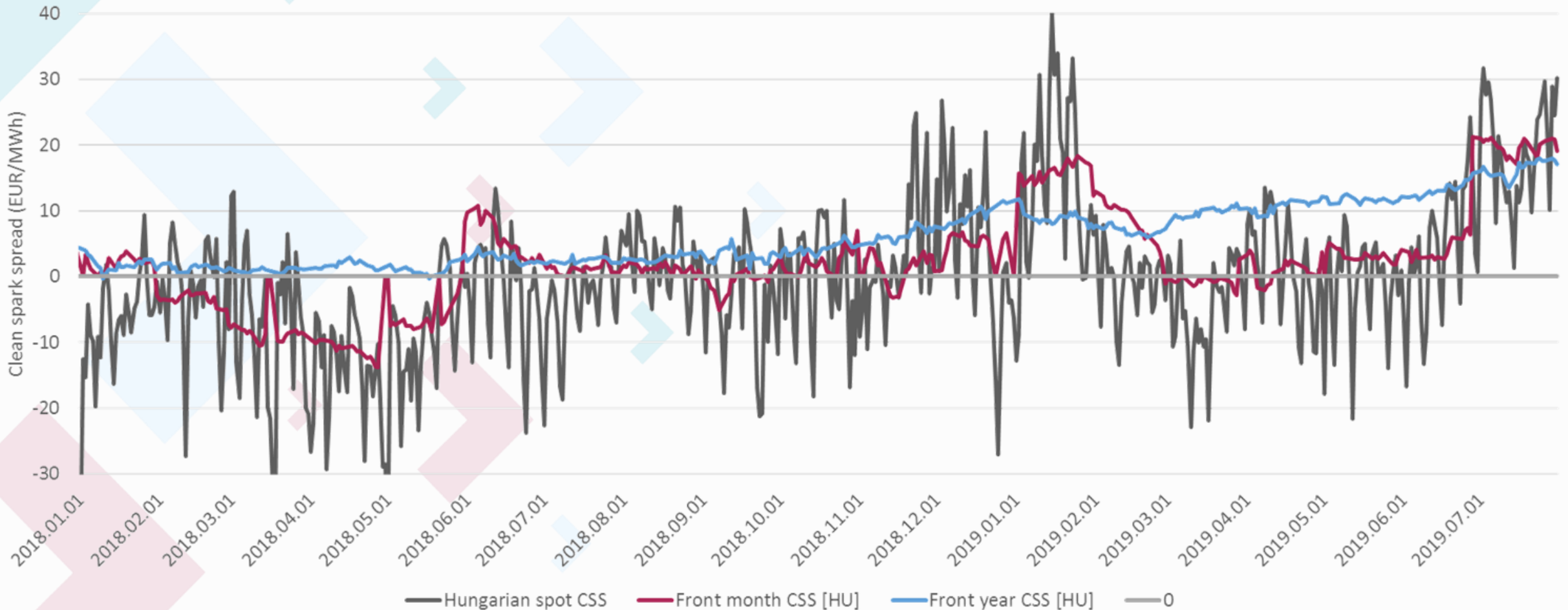


The Financial and Risk business of Thomson Reuters is now Refinitiv.



Hungarian clean spark spreads (45% efficiency)

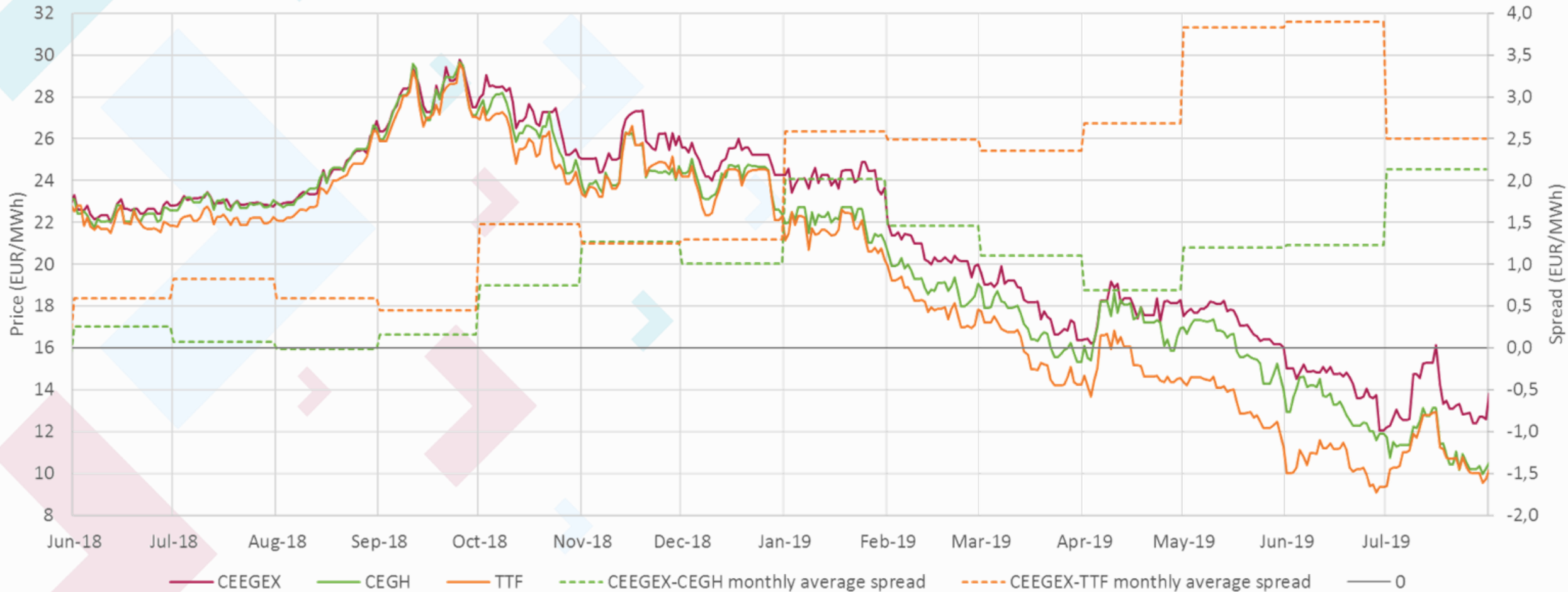
Source: PEGAS, CEEGEX, HUPX, Thomson Reuters



As it could be estimated from futures prices, spot clean spark spreads became even higher in July, while front year CSS put gas fired power plants in the money against coal power plants in Europe

Hungarian and benchmark spot gas prices

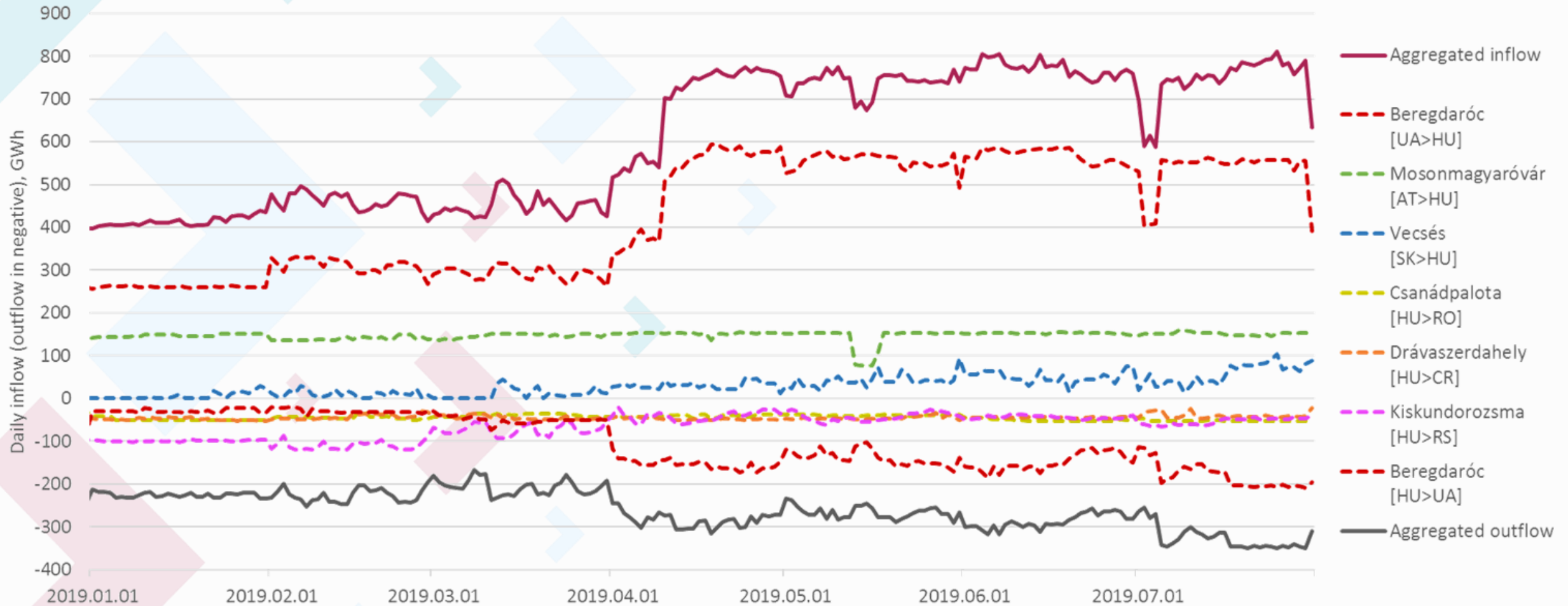
Source: PEGAS, CEEGEX



The hawkish gas prices were supported by maintenance of pipelines in Europe, CEEGEX-CEGH spread is once again above 2 EUR because of the high demand from Ukraine and Romania

Gas flows on Hungarian cross-border points

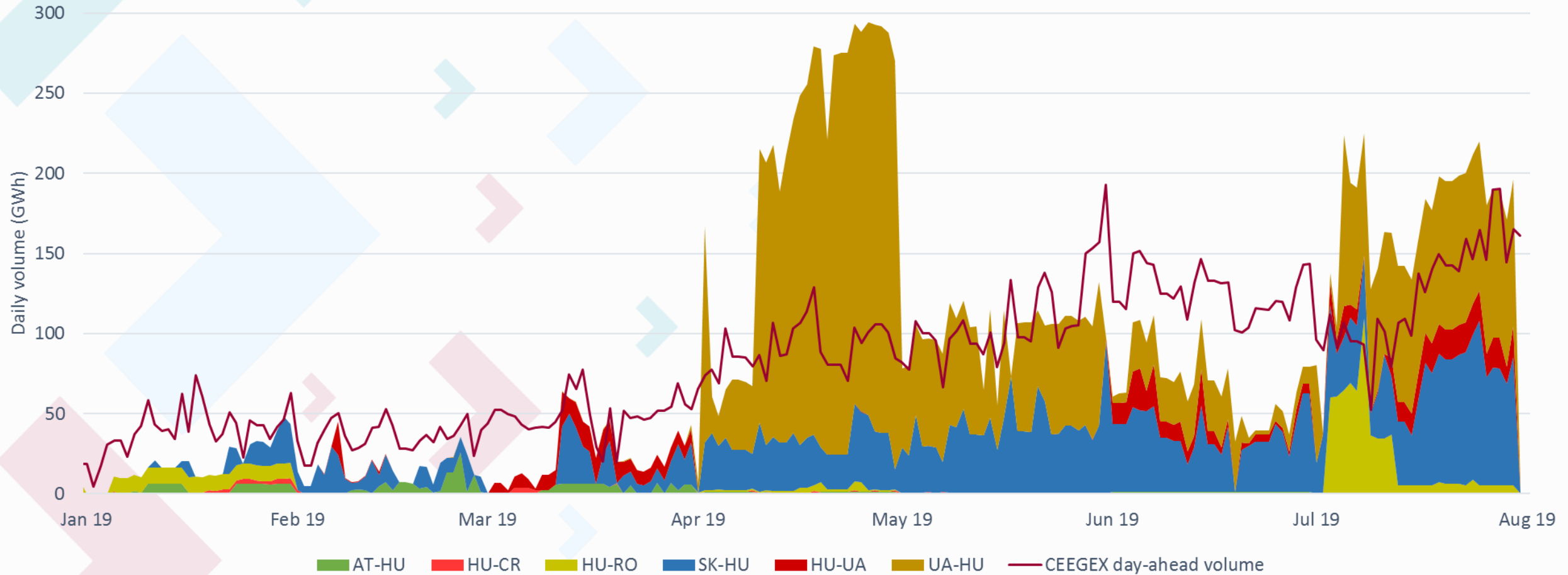
Source: FGSZ IP



The maintenance of Nord Stream 2 lifted regional gas flows in the second half of June, however early on schedule finish resulted decrease of the Ukrainian import. In the meantime it was the first – but likely not the last – time SK>HU flows crossed 100 GWh

Day-ahead capacity auctions and CEEGEX volumes

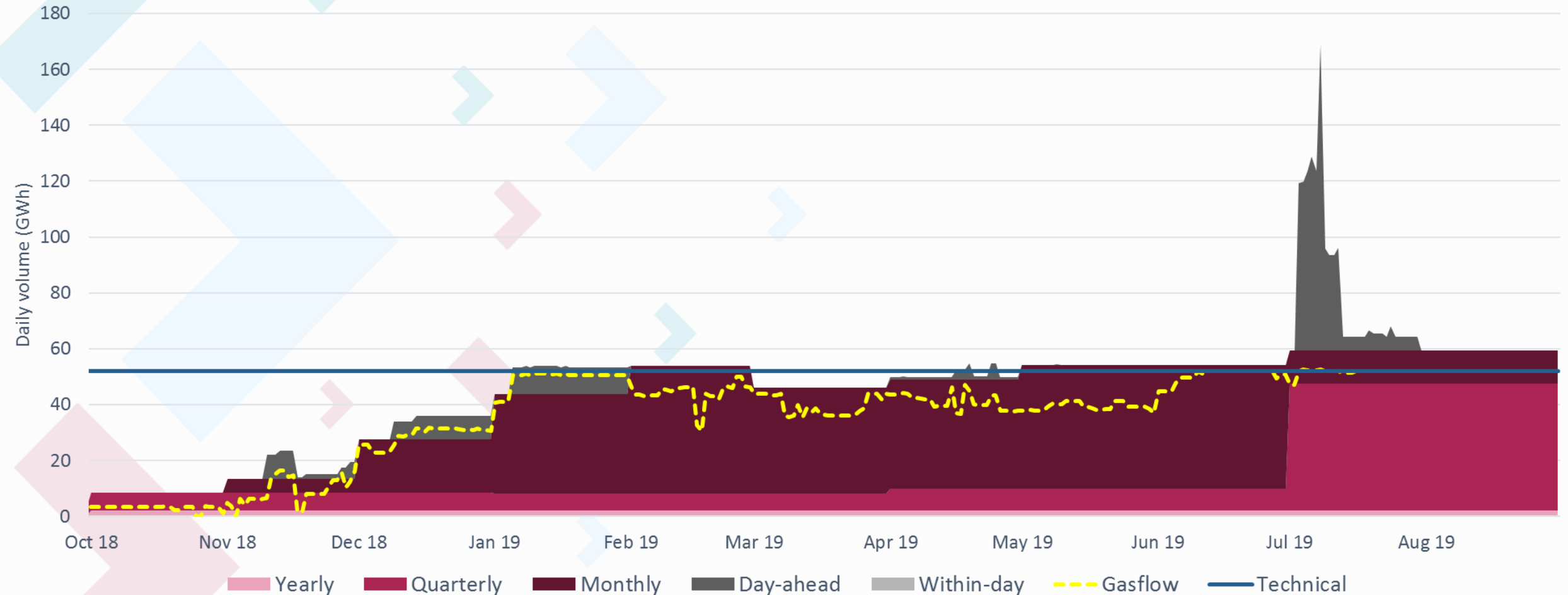
Source: RBP, FGSZ IP



The correlation is still strong between Day-Ahead capacity bookings and CEEGEX volumes. The Ukrainian and Slovakian allocations show a dominance but Romanian export bookings were high in the first half of July too

RO>HU gasflows and capacity bookings

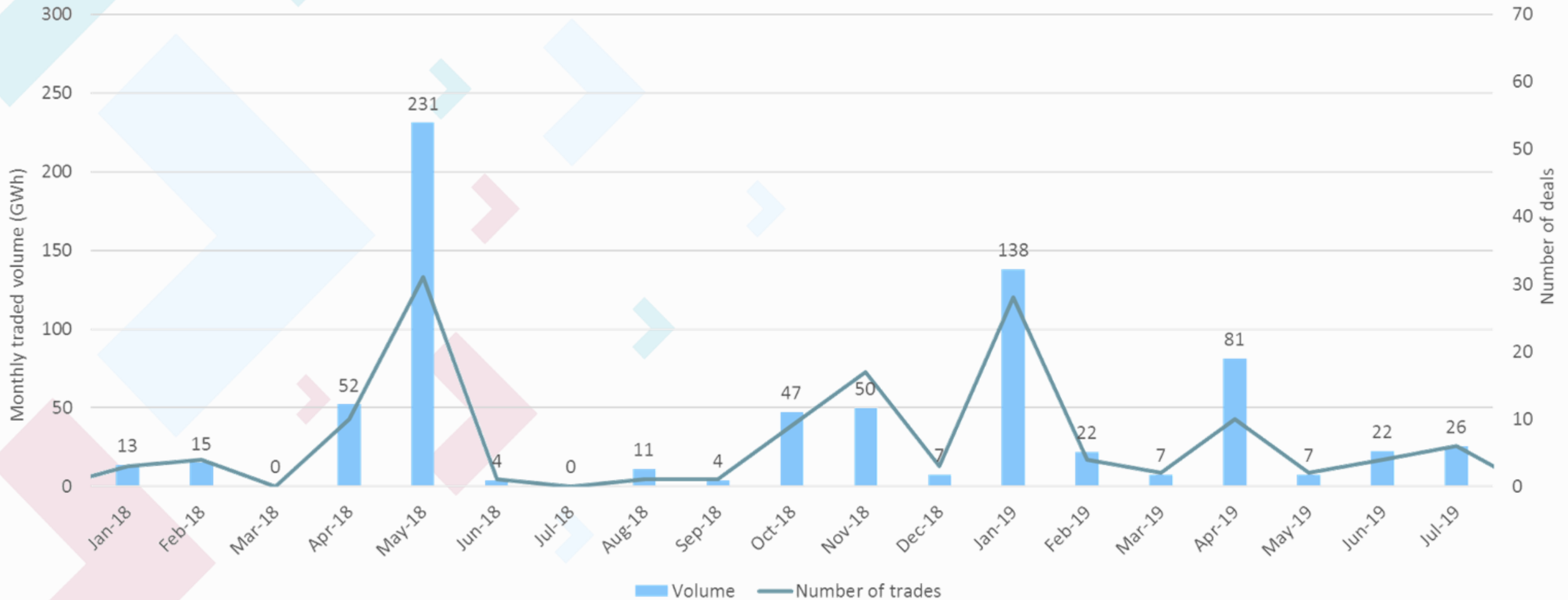
Source: RBP, FGSZ IP



High demand from Romania boosted the liquidity of CEEGEX in July as well. The allocated capacity exceeded the technical capacity, which means shippers booked interruptible capacities too

HUDEX Natural Gas Segment

Source: HUDEX



In the last 3 month HUDEX traded volume grew