



GO MARKET

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HUPX GO Market Monitoring Report

COMPLETE EDITION

26/05/2023

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Notes and methodology

For this report, price benchmarks are calculated for three different technologies and they represent a pan-European indication.

Data input

HUPX calculates price benchmarks based on 2 types of inputs:

- OTC price benchmarks: Greenfact
- Organized GO market auction prices: HUPX, GME, EEX, ILR, CROPEX, OMIP, OKTE

Data collection for the benchmarks and data represented in this report closed on 19th May 2023, which implies prices calculations are completed until 22nd May 2023.

Price benchmark and volatility calculation

The average of the OTC price benchmarks results a price for each day. If one or multiple auctions were organized on a day (D), the volume weighted average price (VWAP) of the relevant technology of the auction(s) is also part of the price formula in form of averaging. During this averaging the VWAP is taken into account with weights 100%-50%-25% for the respective days (D, D+1, D+2), in order to reflect the lingering impact of the auctions.

The double of the 30-day moving standard deviation (2σ) is also indicated on the price benchmark charts in order to provide more details about the fluctuation of the price.

Notes and disclaimer

HUPX reserves the right to change the methodology and the table of content.

This document may contain subjective elements, including the methodology, which don't necessarily match the official views of HUPX.

Further information

Regarding questions and further information please contact go.marketops@hupx.hu



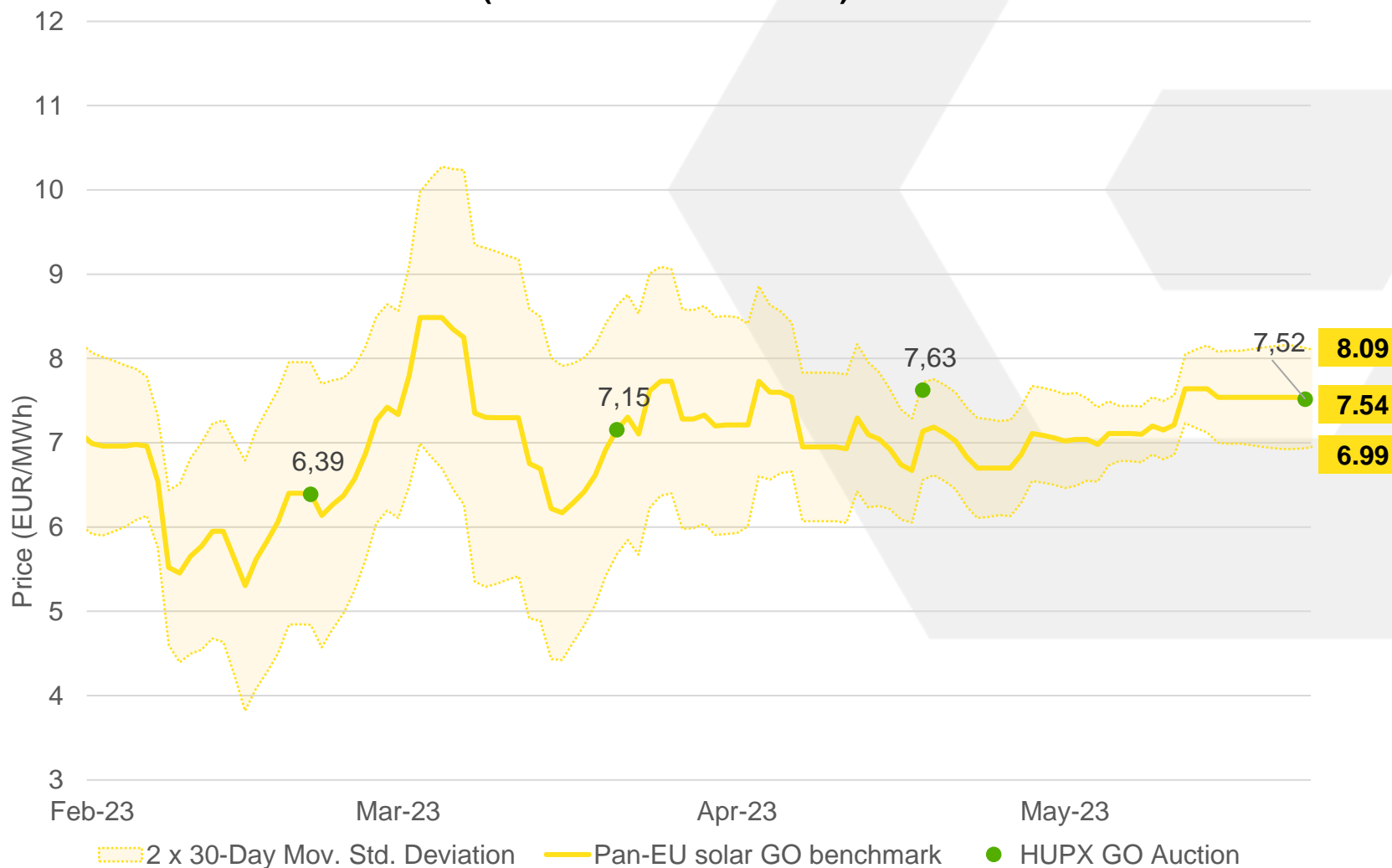
PRICE BENCHMARKS

SOLAR – WIND – HYDRO





Pan-EU solar GO benchmark and calculated volatility (01/02/2023 – 16/05/2023)

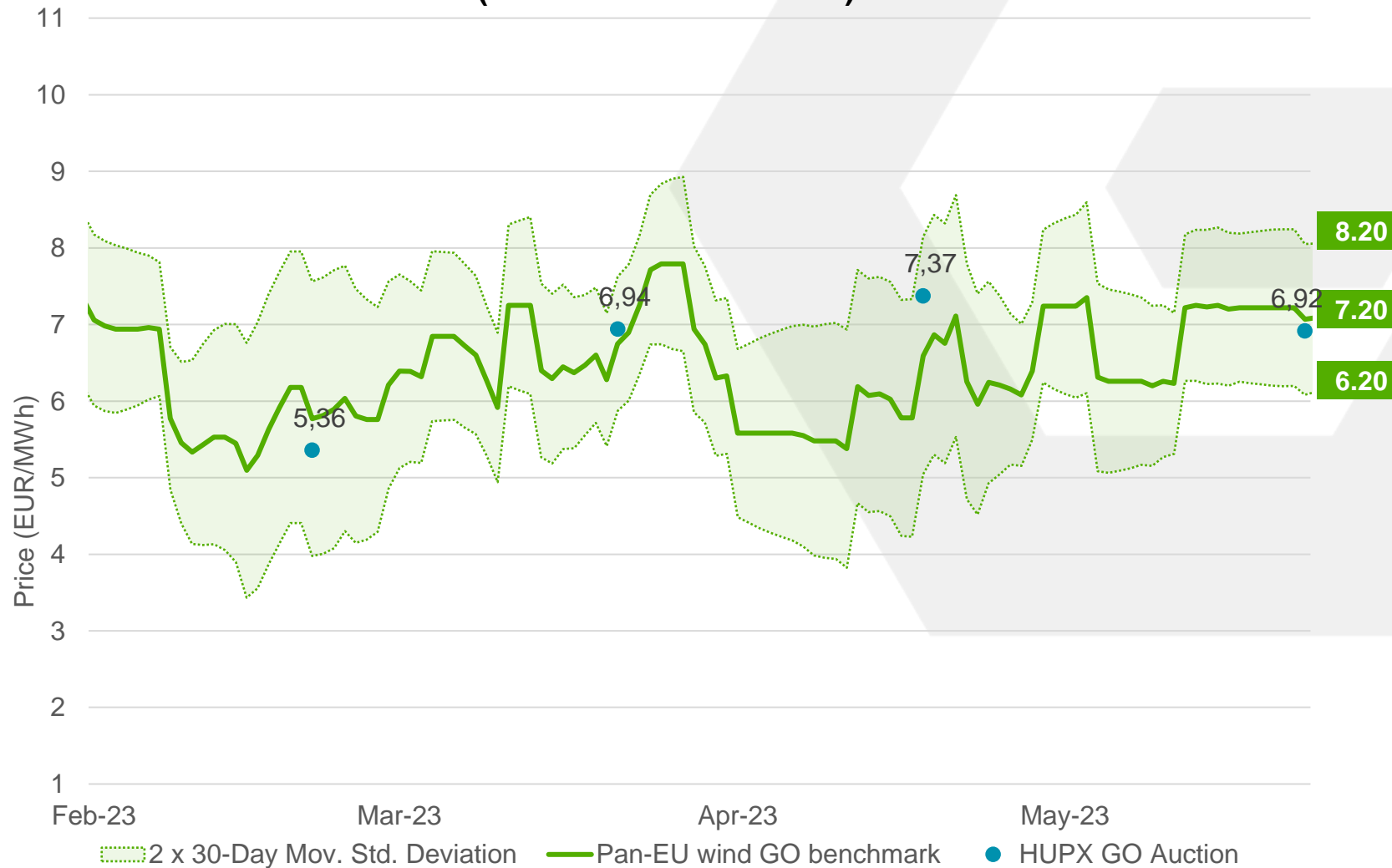


Notes

- In April the HUPX GO Auction solar price was in line with the benchmark prices.
- For May volatility decreased even more compared to the last month to 0.70; the double of the standard deviation reached to 0.55.
- After the calm early April period, the solar GO prices increased up to 7.54 EUR/MWh between late April and early May.



**Pan-EU wind GO benchmark and calculated volatility
(01/02/2023 – 16/05/2023)**



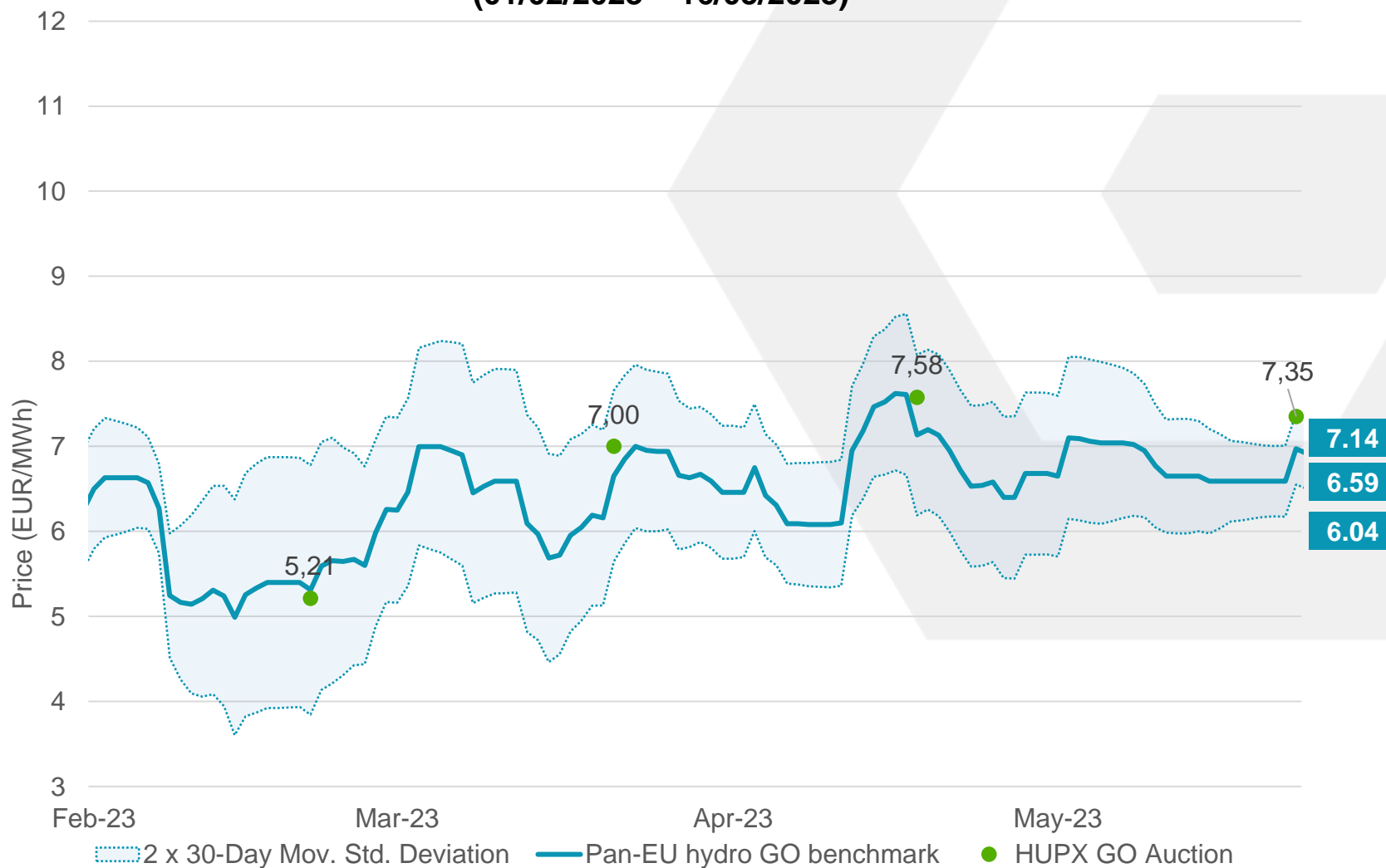
Notes

- Wind GO prices balanced out in April and early May compared to the solar and hydro GO prices.
- The HUPX GO Auction prices of the wind GOs were similar or higher on the last HUPX GO Auction compared to the other GO markets.
- Last wind GO price stood at 7.20 EUR/MWh in the middle of May.
- Volatility decreased further in the past 30 days; the double of the standard deviation was 0.55.





Pan-EU hydro GO benchmark and calculated volatility (01/02/2023 – 16/05/2023)



Notes

- In late April, the hydro GO prices stabilized at 6.59 EUR/MWh.
- Volatility of the hydro GO prices increased to 0.93, which is the highest among the three benchmark technologies.





TRADED VOLUMES

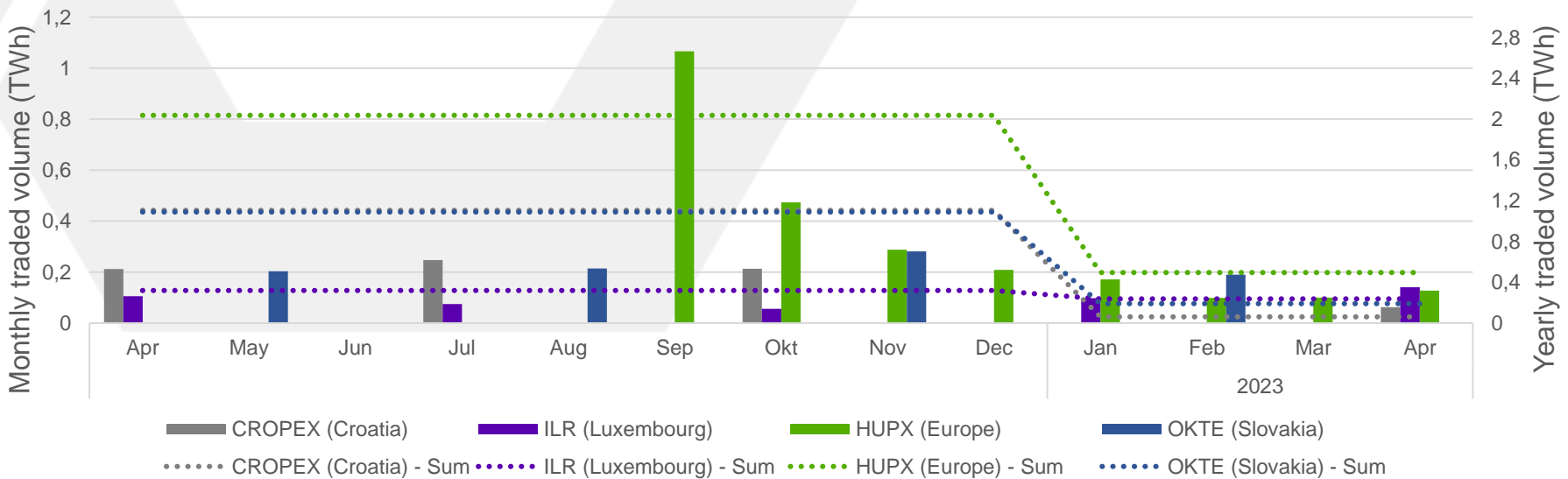
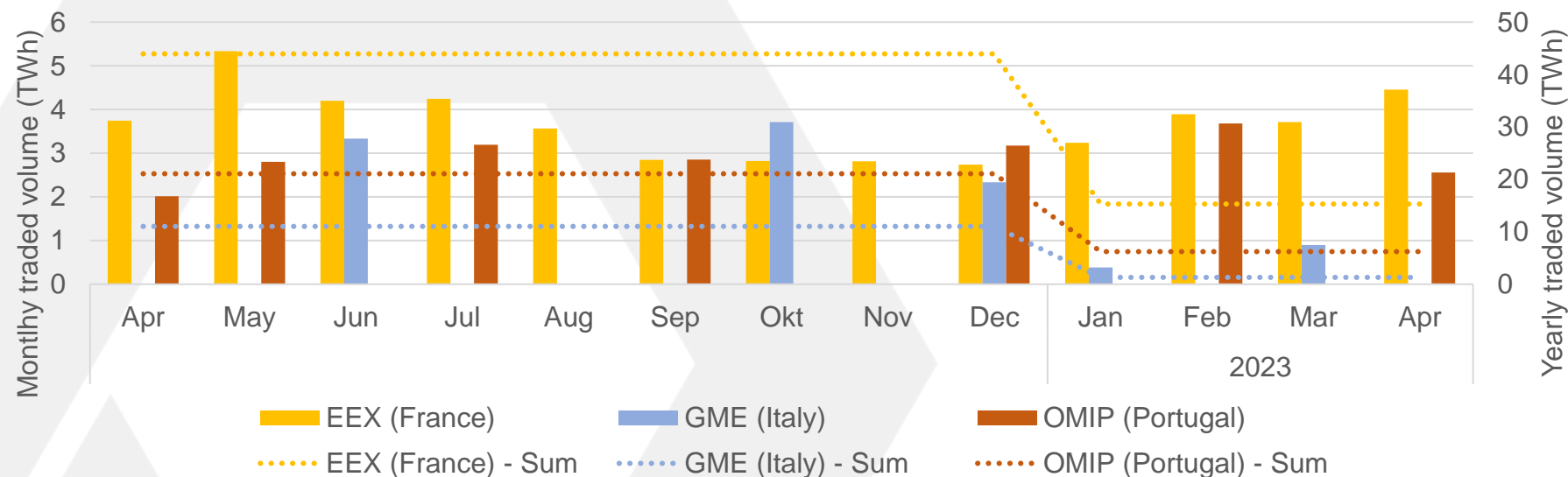
EUROPEAN ORGANIZED GO MARKETS



Traded volumes of European organized GO auctions

Notes

- In line with the large domestic renewable production of France, Portugal and Italy, **EEX, OMIP and GME** were the largest organized GO markets in Europe in **2022**. In 2023, these exchanges still have the most significant role.
- In 2023, HUPX still upholds its leading role among markets with similar size considering volume being above 360 GWh**
- The volume of ILR in April surpassed HUPX GO Auction by a small margin.

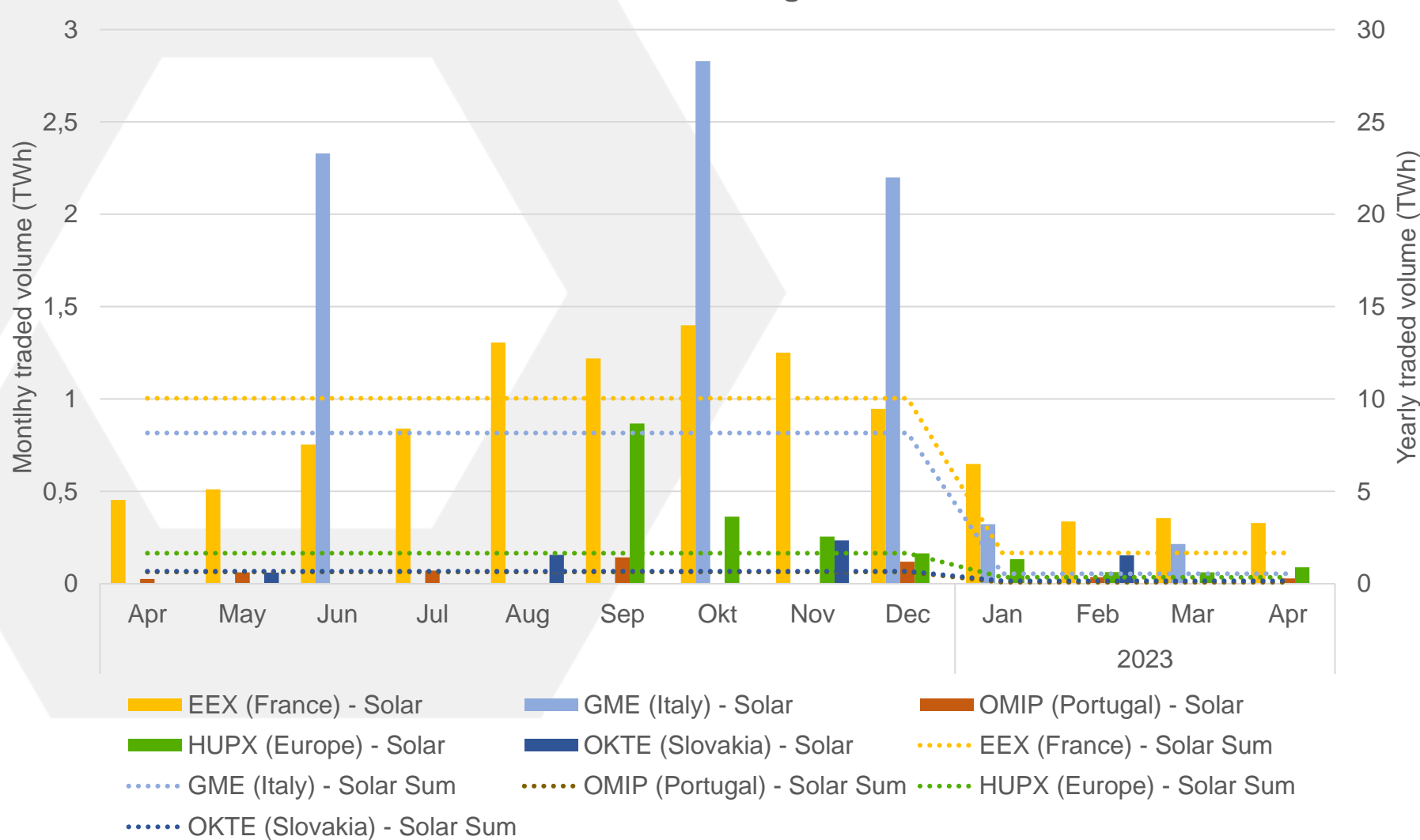




Notes

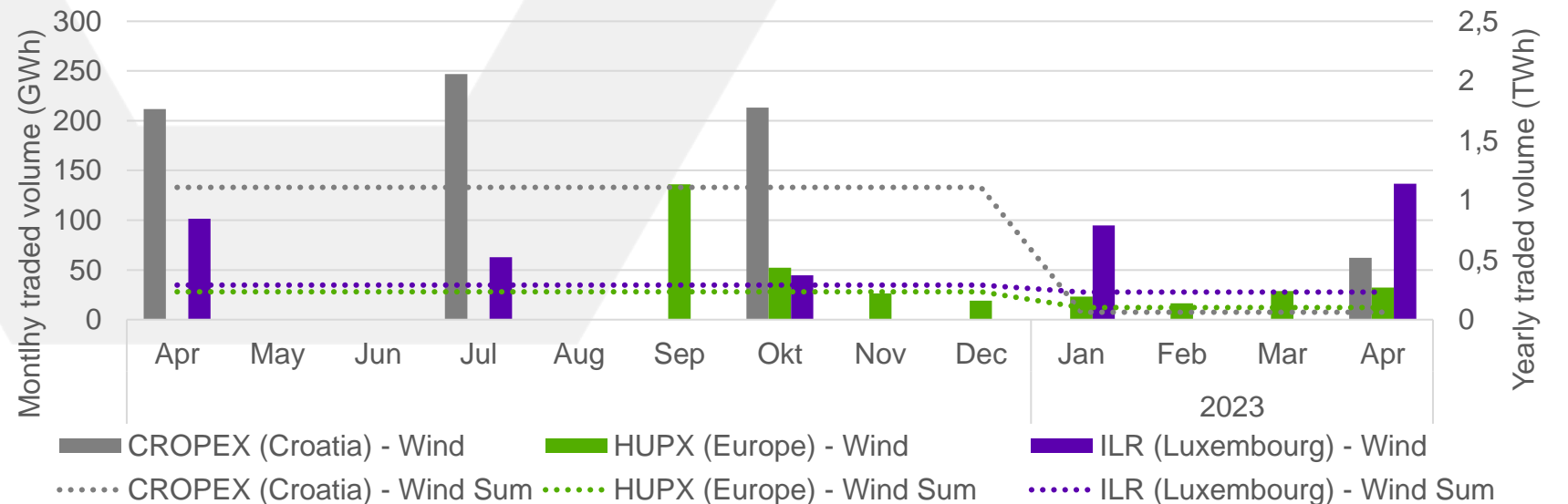
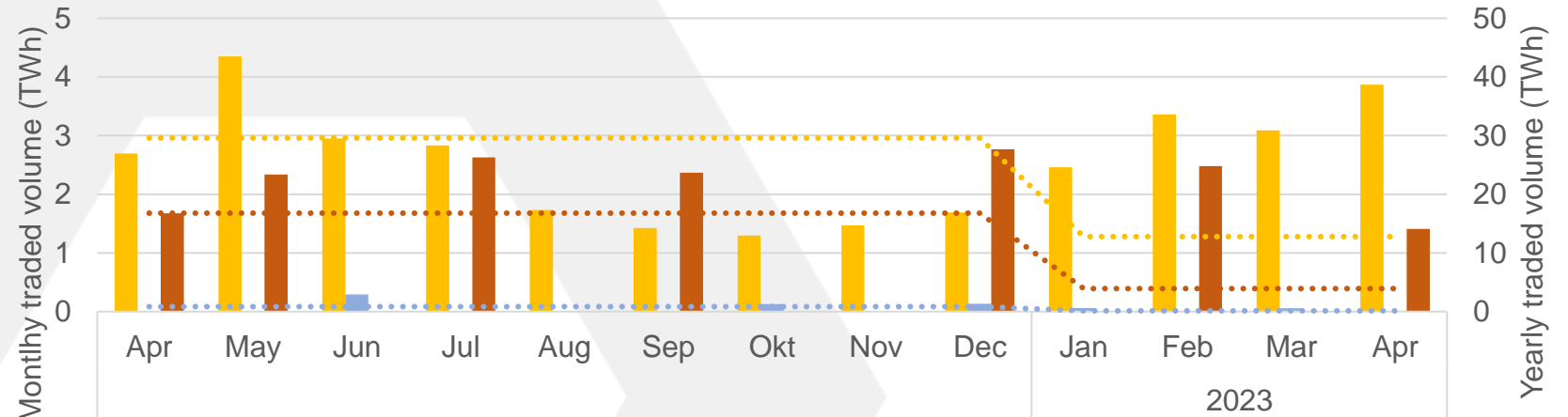
- Among the smaller organized markets, Hungary had the highest solar GO volume, therefore overtook OMIP and became the third largest.
- The EEX volumes dropped to 73% compared to last April.
- The sunnier weather could be felt on the volumes of HUPX as well, increasing to 89 GWh from 61 GWh.

Solar GO traded volume on organized GO markets



Notes

- In 2022 alone the wind GO volumes of EEX were as high as the traded volume of any other organized GO market.
- OMIP saw a sharp drop in wind GO volume in April compared to February.
- The share of wind GOs decreased to 25% in Hungary in April down from 29%.
- ILR rose above its competitors in April with 137 GWh GOs traded.



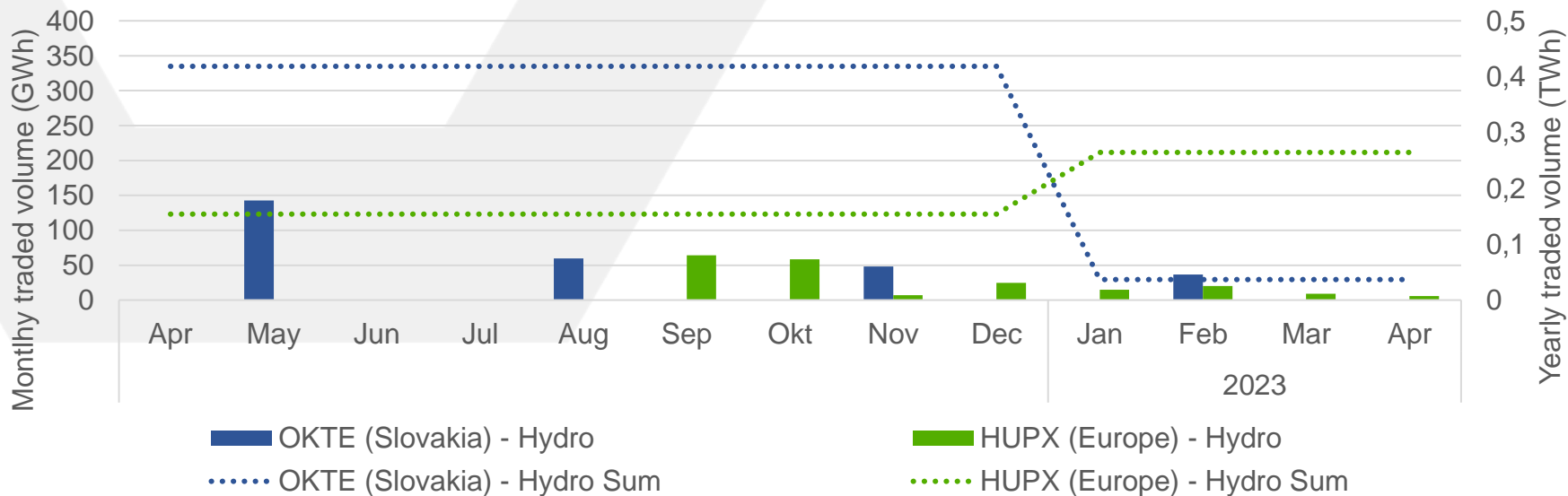
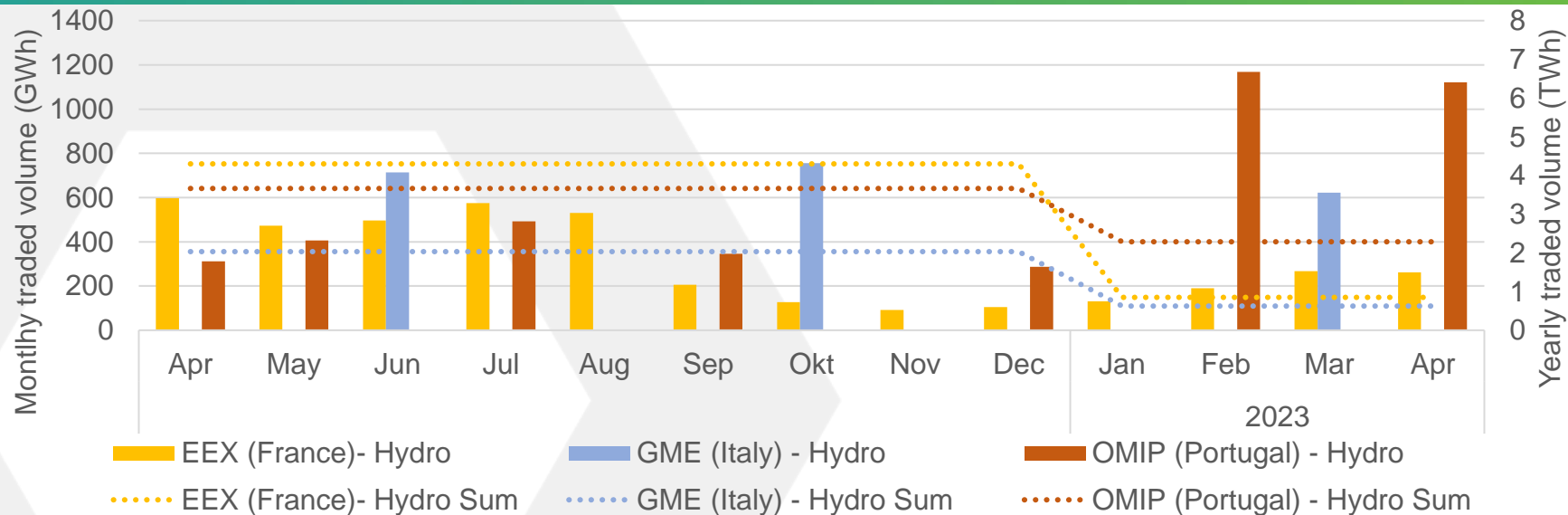


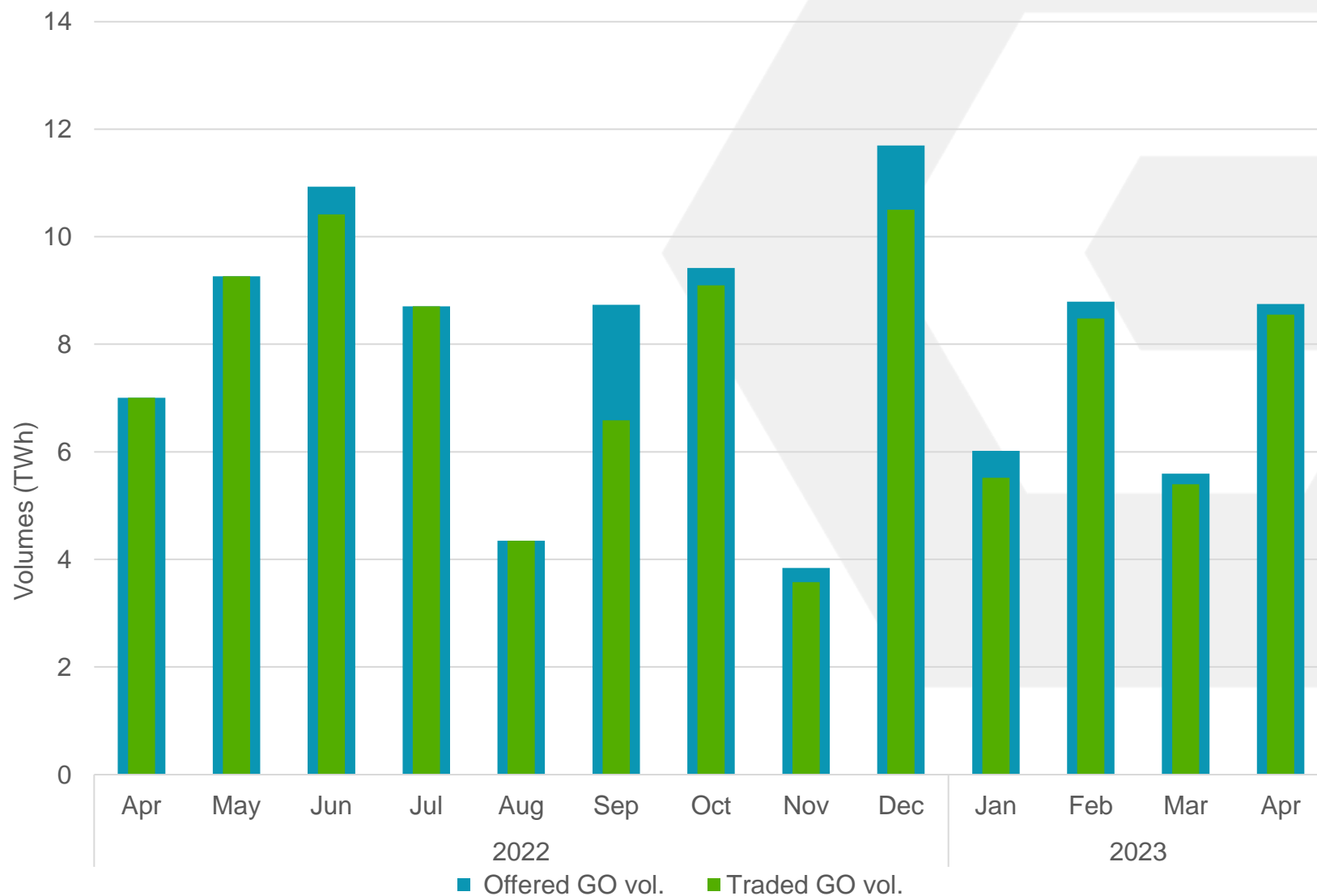
Volumes of European organized GO auctions – Hydro

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Notes

- **The Portuguese auction** brought a **record high volume** in terms of **hydro GOs**.
- **The traded volume of hydro GOs were insignificant in April on the smaller markets**
- **The hydro GOs were lower in rate** in April on HUPX at **5 %**.





Notes

- On many organized GO market auctions 100% of the offered GOs were sold. This indicated the strong demand for GOs even though the prices rose significantly.
- In April, the trade ratio was lower than a 100% again.
- This was in line with the high and volatile prices as demand and supply couldn't match in many cases.
- Chart shows only those auctions, where offered volume data is publicly available.



Bids and offered volume ratios, prices of HUPX GO Auctions



Notes

- The VWAP to to 7.34 EUR/MWh in May.
- The overdemand fell to 251% from 608%.

How to participate?

More information:

<https://hupx.hu/en/go-market/members-and-admission>

Next auction

20th June 2023

<https://hupx.hu/en/go-market/next-auction>

