Understanding demand – European volumes and prices – Where are markets heading?

16/17 April 2024 Amsterdam

Valuing consumer action



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Founded in 2005, STX Group a leading environmental commodities trader with global presence

Employees Nationalities Products Active clients GoO 400 TWh 7000+ 70+ 550 50 (traded in 2023) **Producers** Renewable Energy EAC **Corporates** Gas Efficiency **Dedicated FTEs** STX **EMEA Utilities** Strive by STX Americas **APAC Analytics** 42 Origination **Physical** Carbon **O&G** majors **VERs Biofuels** compliance Other







Agenda

- 1 Production
- 2 Price development
- 3 Looking ahead





Production

960 TWh was produced on 2023 (+15% increase year on year)

Wind +17%

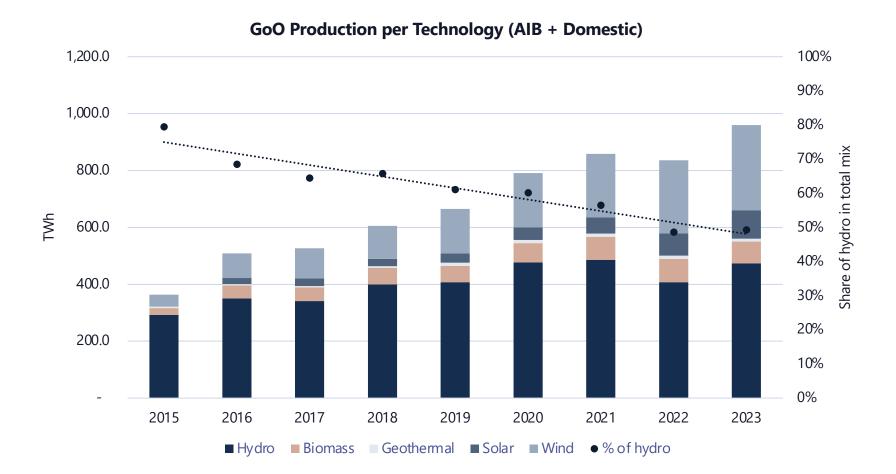
Solar +26%

Biomass -6%

Hydro +16%

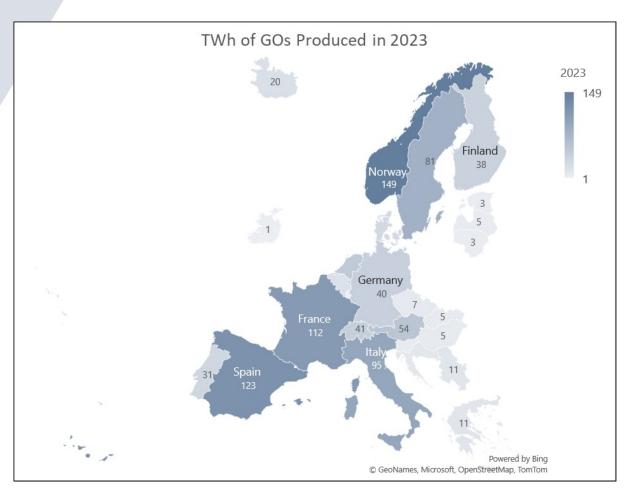
Hydro production recovered strongly in the second half of 2023 due to higher precipitation throughout Europe and Scandinavia.

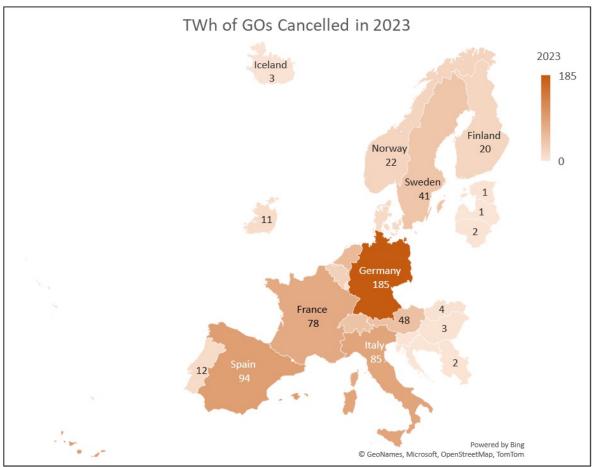
Wind and Solar production continued to increase strongly due to added capacity.



Valuing ROO MA

Issuance versus Cancellations



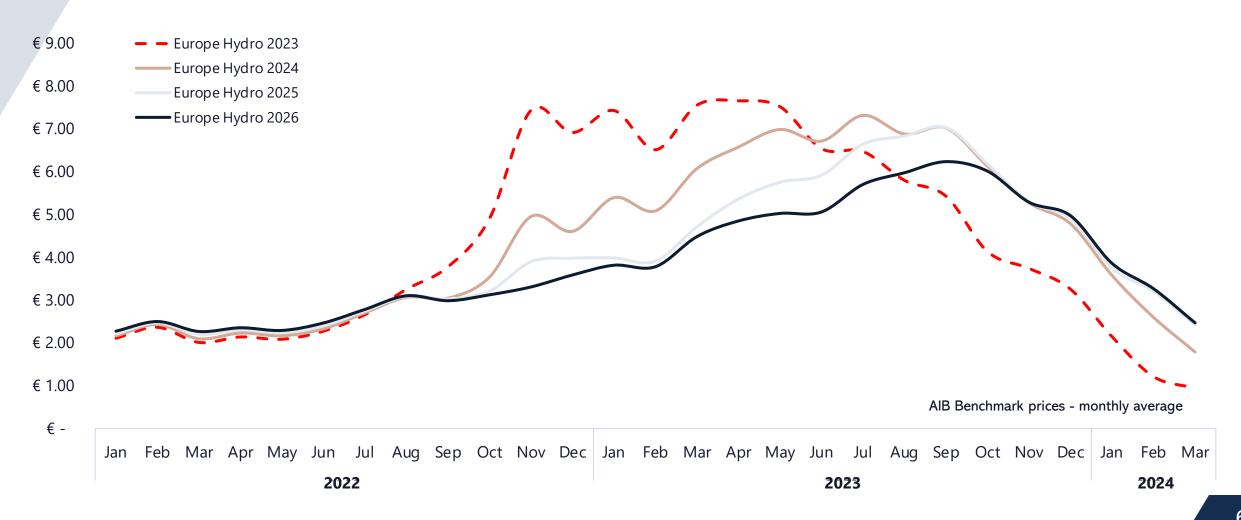


- Largest increase from France (19 TWh), Italy (15 TWh) and Spain (13 TWh)
- Smallest increase from Luxembourg (0.0 TWh), Iceland (0.1 TWh) and Estonia (0.1 TWh)

- Largest increase from Germany (43 TWh), Italy (14 TWh) and France (11 TWh)
- Largest decrease from Sweden (-24 TWh), Finland (-8 TWh) and Norway (-7 TWh)

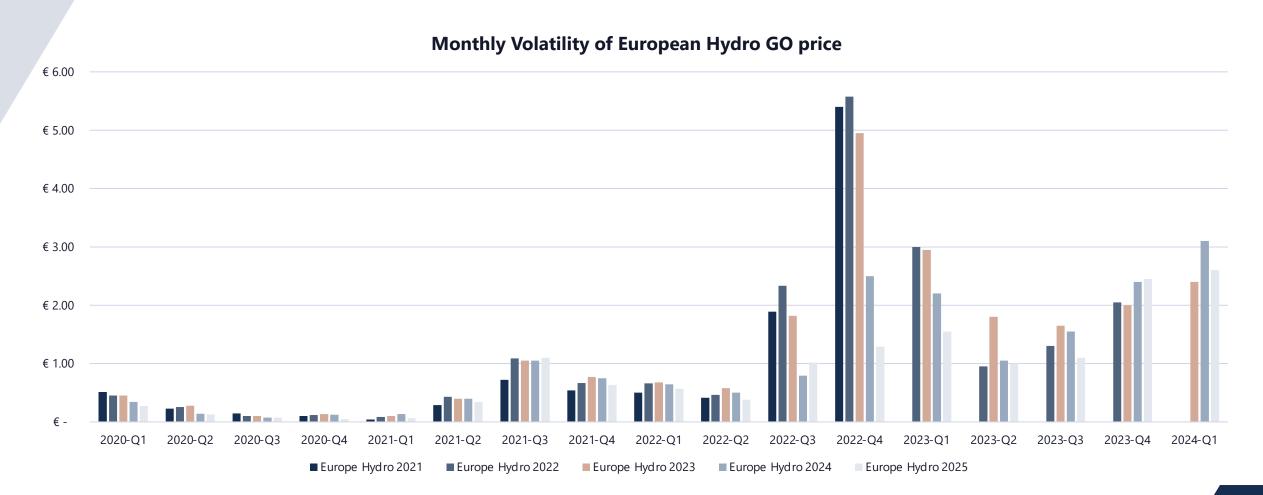


Price Development of GoOs – Backwardated to Contango



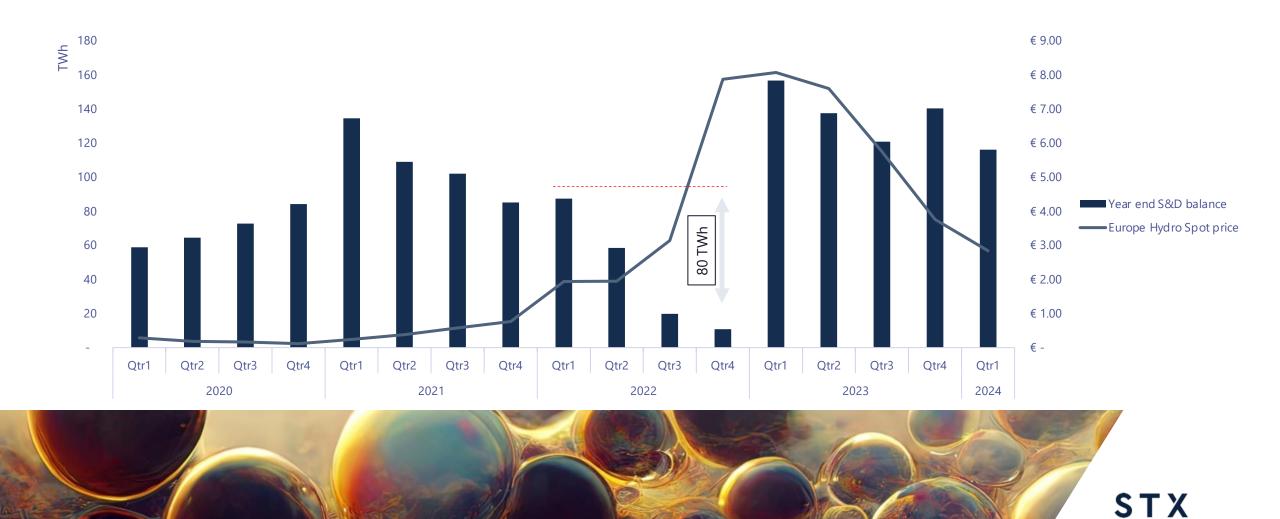


GOOs are increasingly more volatile





A slight imbalance due to reduced production can squeeze prices



1



Recognition of Energy Community-

issued GOs (excluding Serbia) could

add 60 TWh to the market

80 TWh change in S&D increased prices 800%

330 TWh of supply does not receive

a GO. Germany would export 100

TWh rather than import, if policy is

changed.

What is the effect of potential policy changes on prices?

150 TWh of supply is leaving the AIB

against only **30 TWh** of demand.

Norway out of AIB Germany issuing supported GOOs RFNBO driven GOO demand **Energy community mutually recognized by EU** The Energy Community and Grexel Either internally driven resistance to pay European policy harmonization could RFNBO targets seek to boost nona premium for renewable power or a change eligibility criteria for GOO biomass renewable energy in the are working on a GOO trading future ban by AIB over location vs issuance. It could result in Renewable energy mix, spurring a significant scheme for Energy Community market based renewable claims can production that is currently excluded increase in renewable energy countries to enter the EU market. from receiving GOOs in Germany generation. This surge in generation is shift the current in- and export. Currently, non-EEA GOOs aren't recognized in the EU. Concrete steps becoming eligible to trade or auctioned. expected to drive up demand for corresponding GOOs for recognition were discussed at a recent conference **Bearish:** Nett Supply impact **Bullish:** Nett Demand impact +500 +330TWh **Bearish:** Nett Supply impact +60TWh **Bullish:** Nett Supply impact -120TWh TWh

500 TWh of renewable demand

added by 2030 according to the EU-C.







Hedging behaviors

- Higher volatility is resulting in ad-hoc buying/selling becoming substantially more risky
- Increased demand for longer term solutions
- New pricing structures (floating price and options)

2

Increased transparency

- Increased amount market data available
- Additional platforms and auctions
- Full disclosure



Higher frequency of trade

- Market is growing in all aspects
- New trading-oriented counterparties entering the market
- Market participants are becoming more educated

