International Energy Agency

Gas Report –Q2 2024 & Northwest European Hydrogen Monitor

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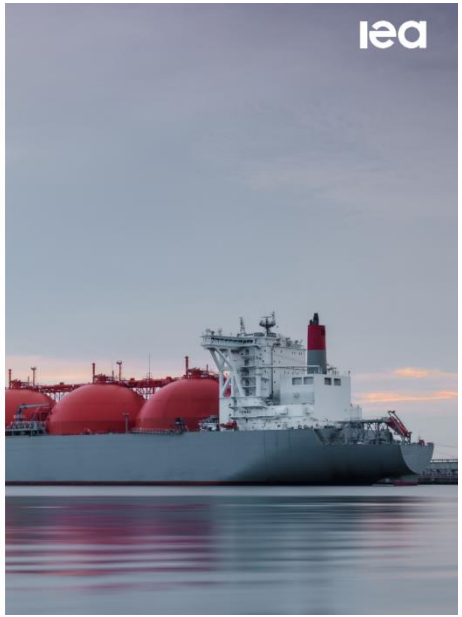
IEA Gas Report –Q2 2024 & Northwest European Hydrogen Monitor

Gas Market Report, Q2-2024

Including *Global Gas Review 2023*



https://www.iea.org/reports/gas-market-report-q2-2024

Northwest European Hydrogen Monitor 2024

https://www.iea.org/reports/northwest-european-hydrogen-monitor-2024

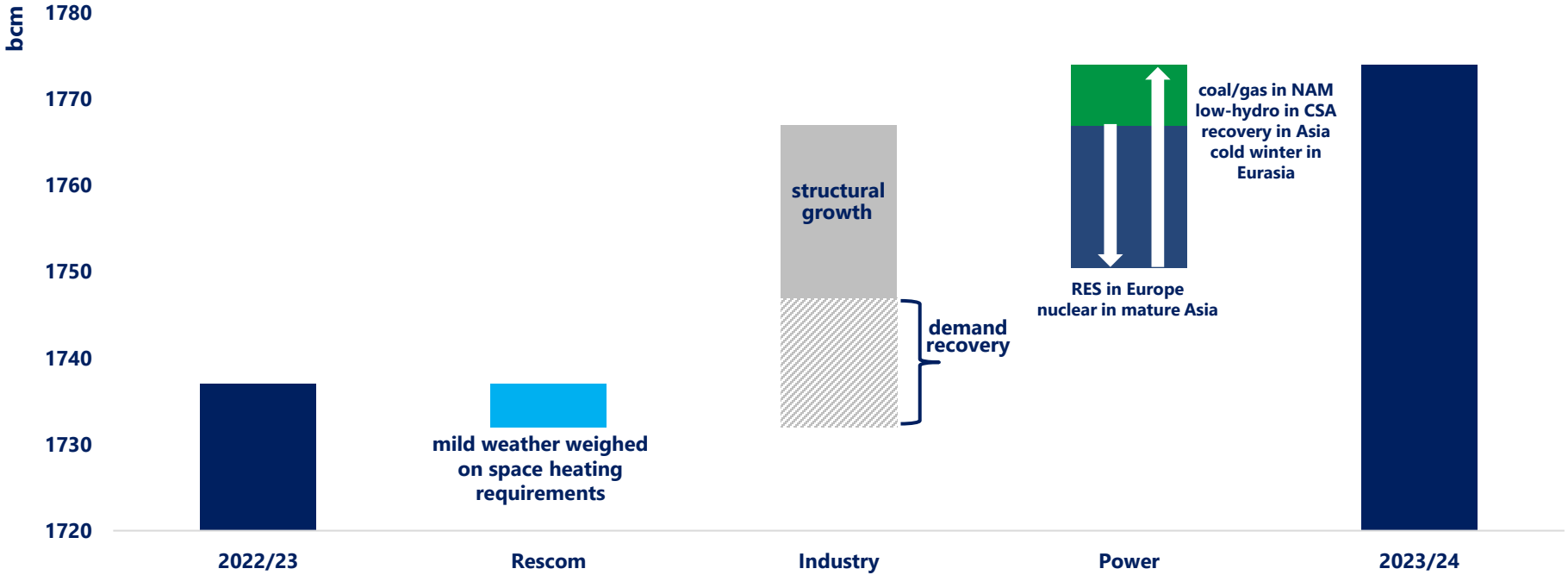
Recent gas market trends and global outlook

Gas prices fell below their pre-crisis levels in Q1 2024

Evolution of key regional natural gas prices, 2021 – 2024

Mild weather limited gas demand growth over 2023/24 winter

Estimated year-on-year change in natural gas demand in selected markets* over the 2023/24 heating season

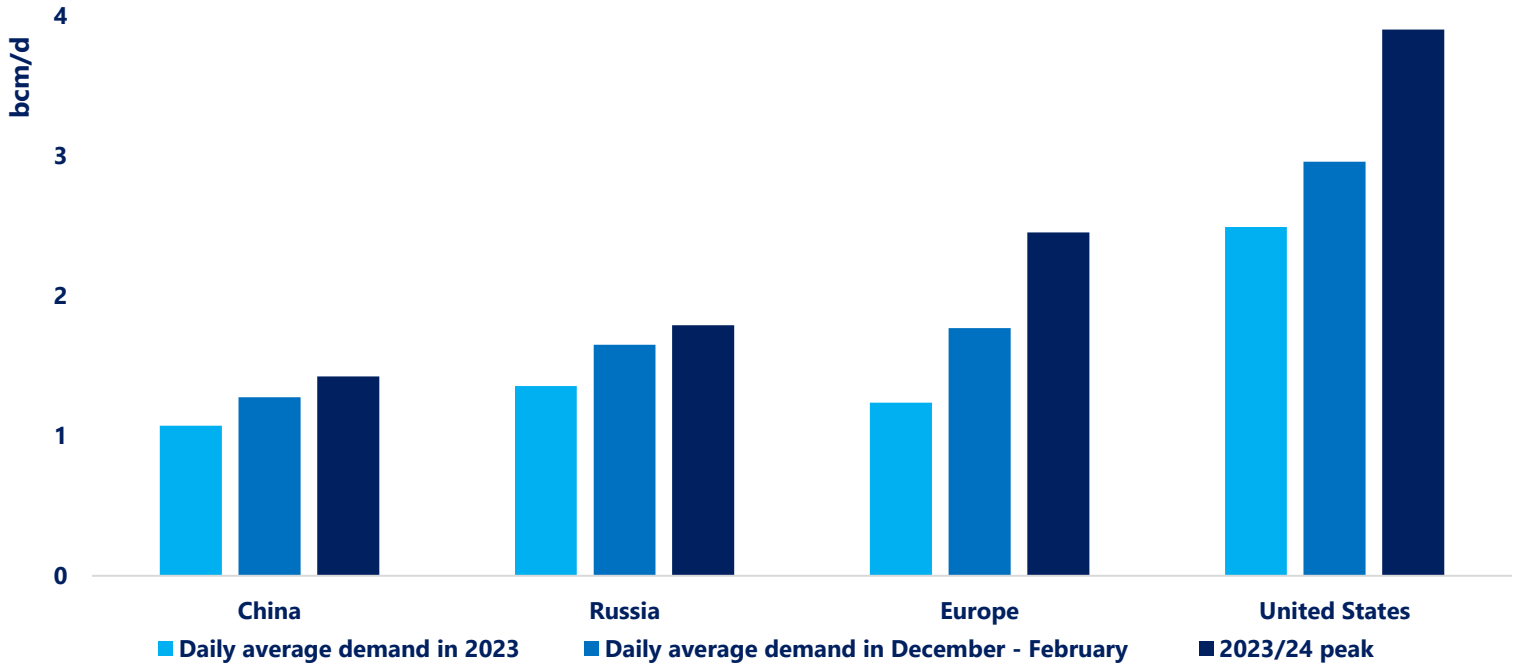


Natural gas demand grew by 2% through the 2023/24 winter. While unseasonably mild weather weighed on space heating, demand growth was largely driven by higher gas use in the power and industrial sectors.

**Asia, Central and South America, Eurasia, Europe and North America.*

A winter of peaks: the need for gas supply flexibility

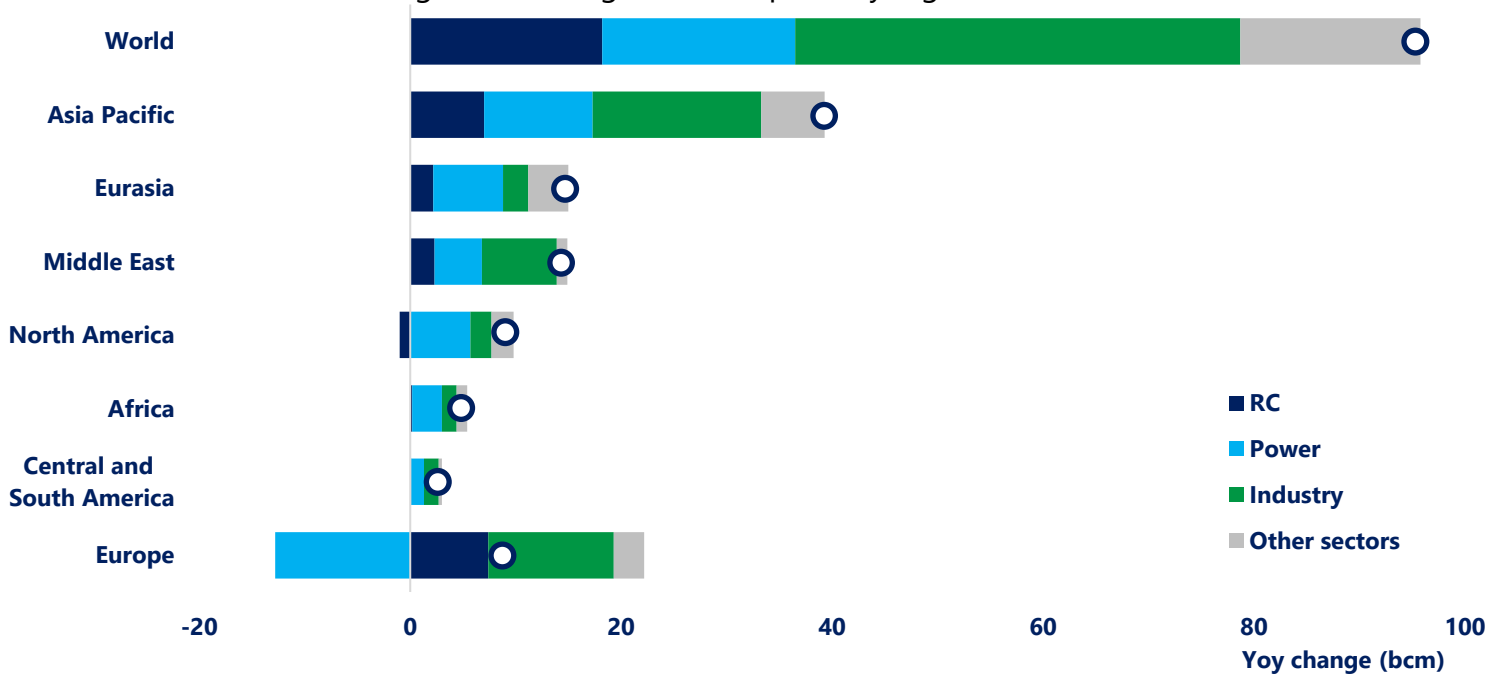
Daily average and peak natural gas demand across key gas markets during the 2023/24 winter



Despite being an unusually mild winter on average, the 2023/24 heating season witnessed several cold spells, which resulted in record-breaking demand spikes across key markets in the Northern Hemisphere.

Industry is expected to drive demand growth in 2024

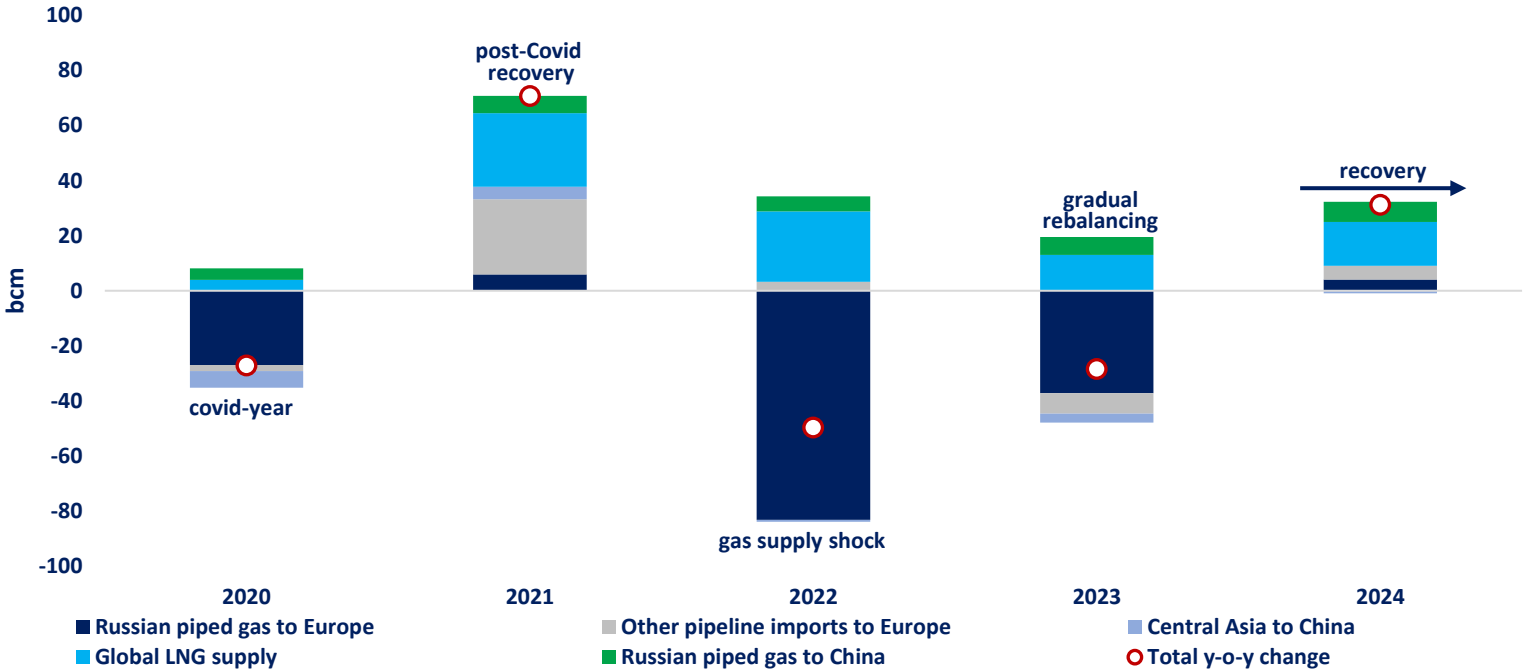
Forecast change in natural gas consumption by region and sector, 2024 vs 2023



Global gas demand is forecast to increase by 2.3% in 2024, with growth primarily concentrated in fast-growing Asian markets. Industry is expected to account for 45% of incremental gas demand in 2024.

Global gas trade is moving towards a gradual recovery…

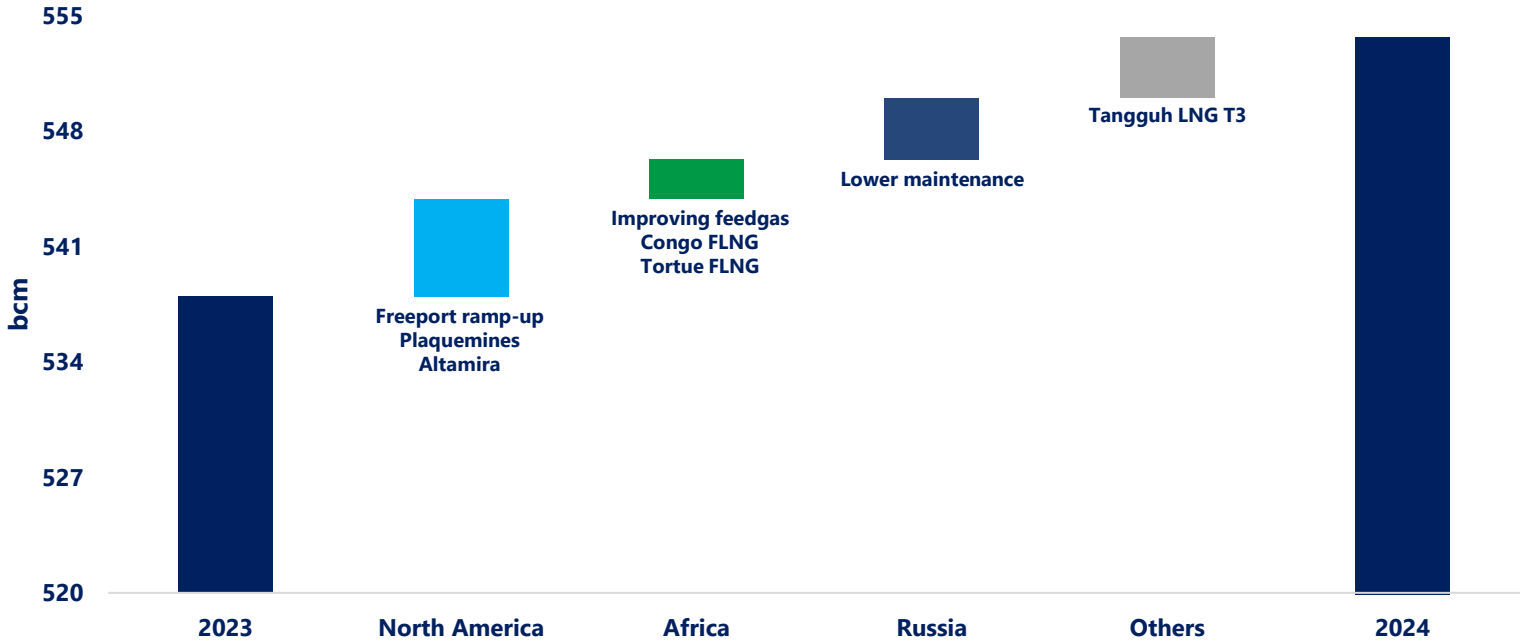
Year-on-year change in key piped natural gas trade and global LNG supply, 2019 – 2024



After two years of tightening, global gas trade is expected to expand in 2024, enabling stronger demand growth in key Asian and European import markets.

…although LNG supply growth is expected to remain limited

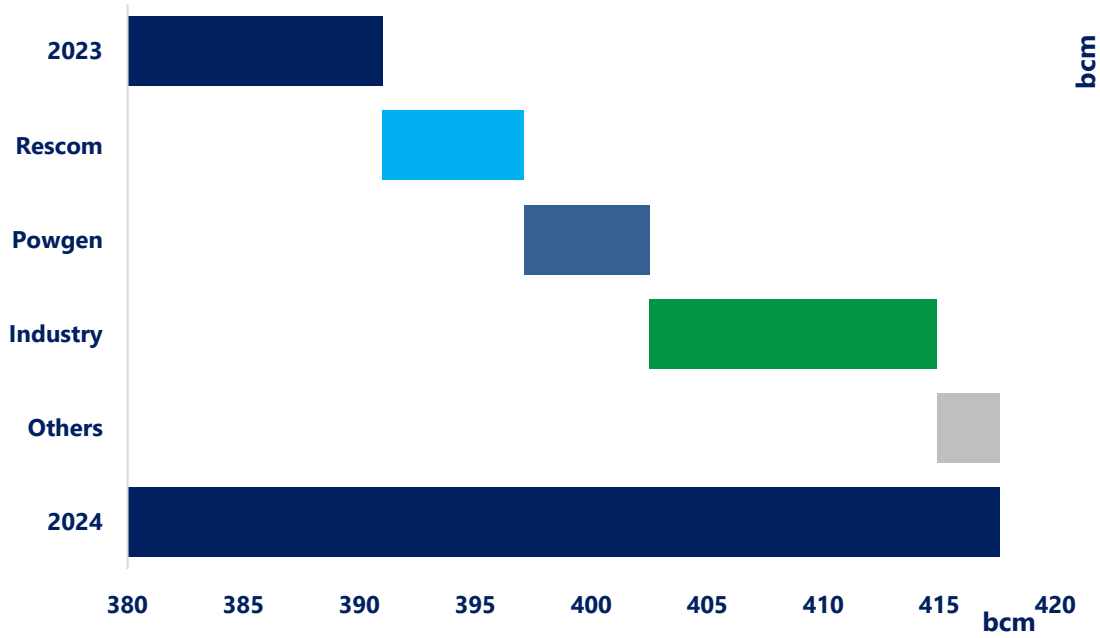
Year-on-year change in LNG production by key region (2024 vs 2023)



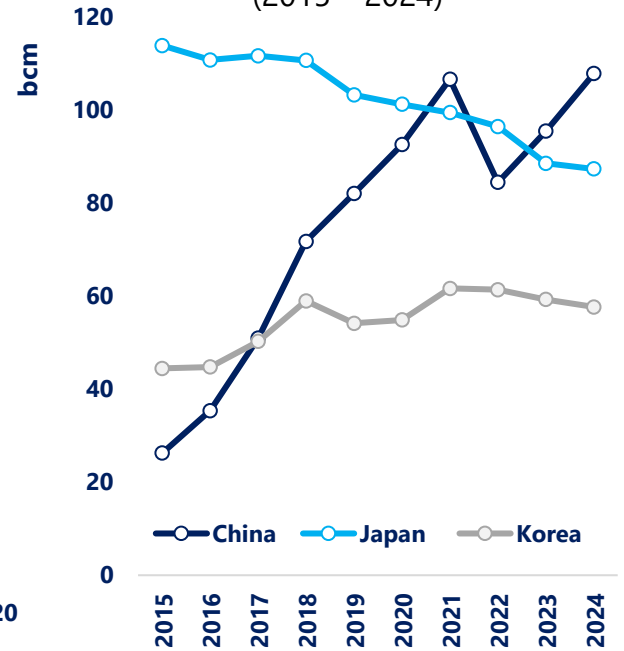
Global LNG supply is set to increase by a mere 3% in 2024 –well-below the 8% growth rate experienced between 2016-20. Incremental supply is primarily driven by the US, Africa, Indonesia and Russia.

Year of the Dragon: China is back with full strength

Estimated change in natural gas consumption by region and sector



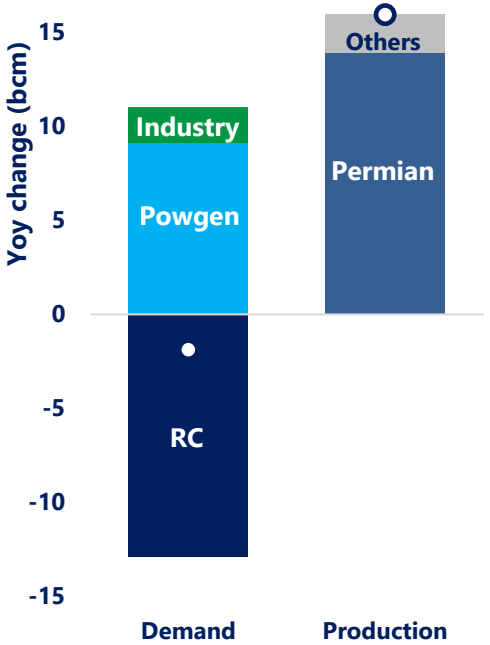
LNG imports of China, Japan, Korea (2015 – 2024)



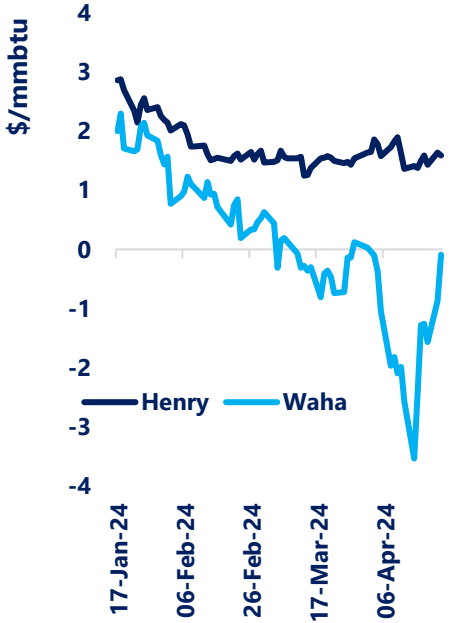
China's gas demand is forecast to grow by 7% in 2024, with all sectors maintaining strong momentum. Demand growth is expected to drive-up China's LNG imports just above their 2021 record levels.

Drill or not to drill: US producers are facing an oversupplied market

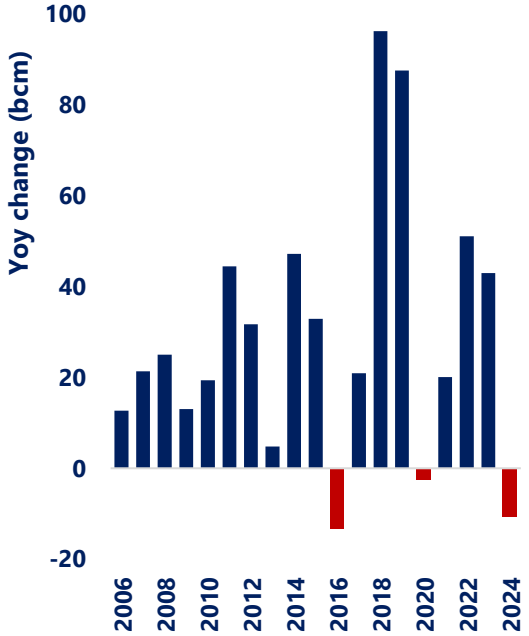
US gas demand and production, 2023/24 winter 2022/23 winter



Henry Hub and Waha prices, 2024

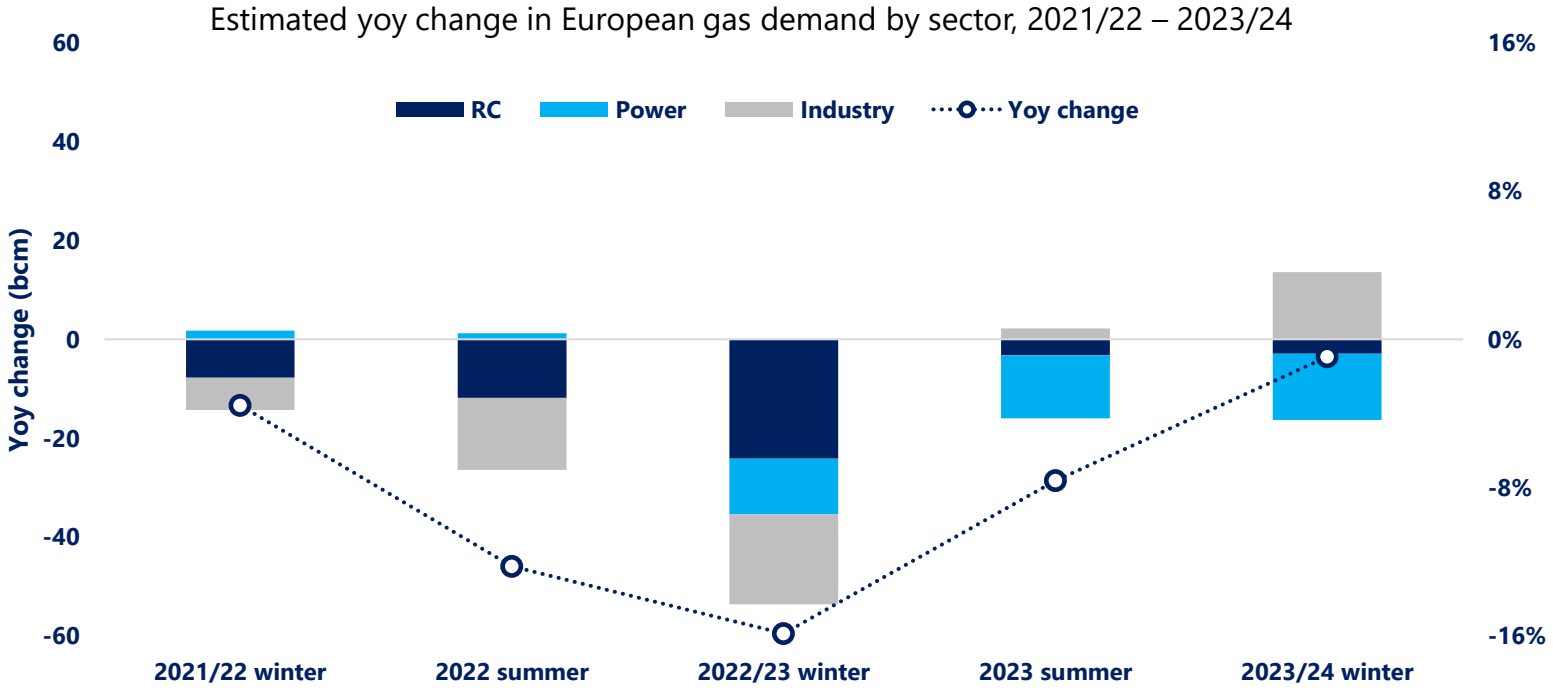


Change in US gas production, 2006-2024



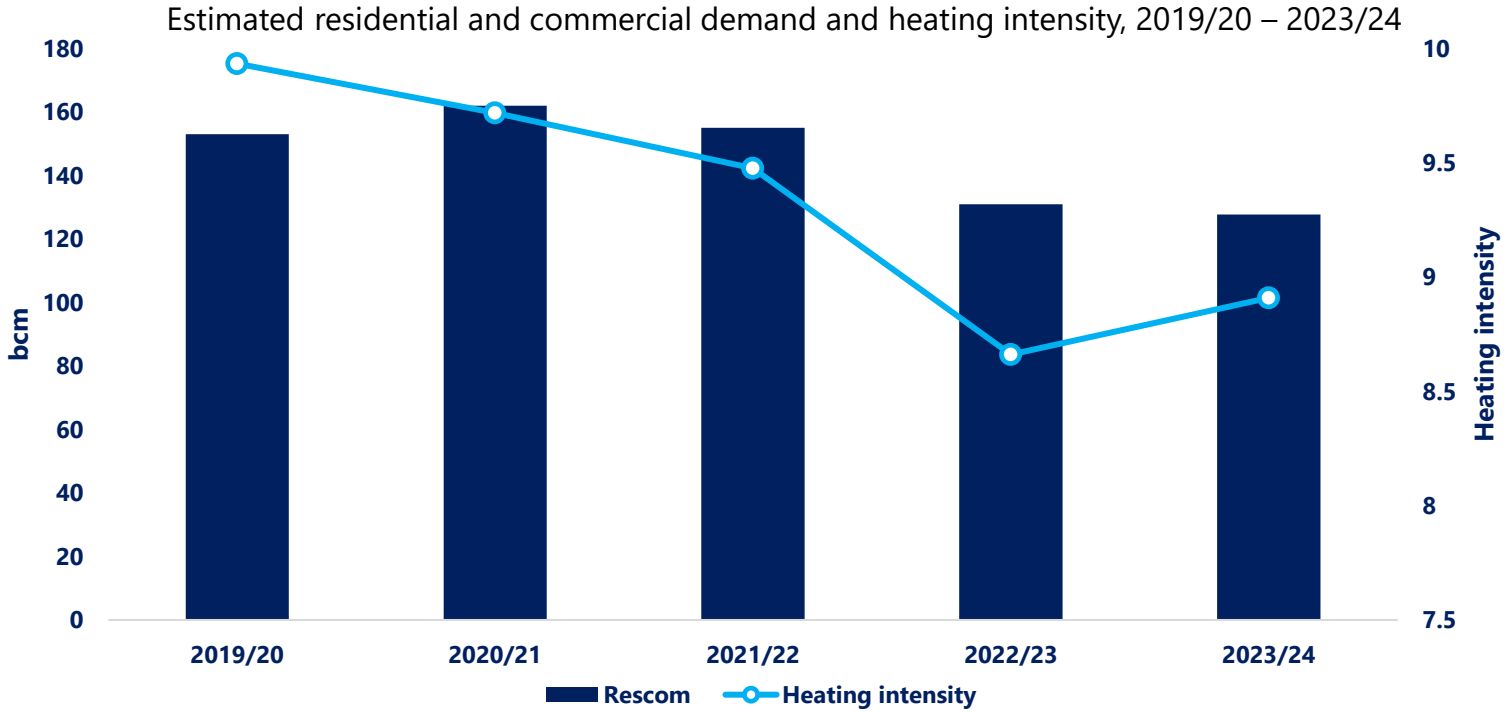
A mild winter and strong production growth in the Permian depressed US gas prices to multi-decade lows. High storage levels with moderate feedgas demand growth could drive down US gas production in 2024.

Blow it away: RES and mild winter depressed European gas demand



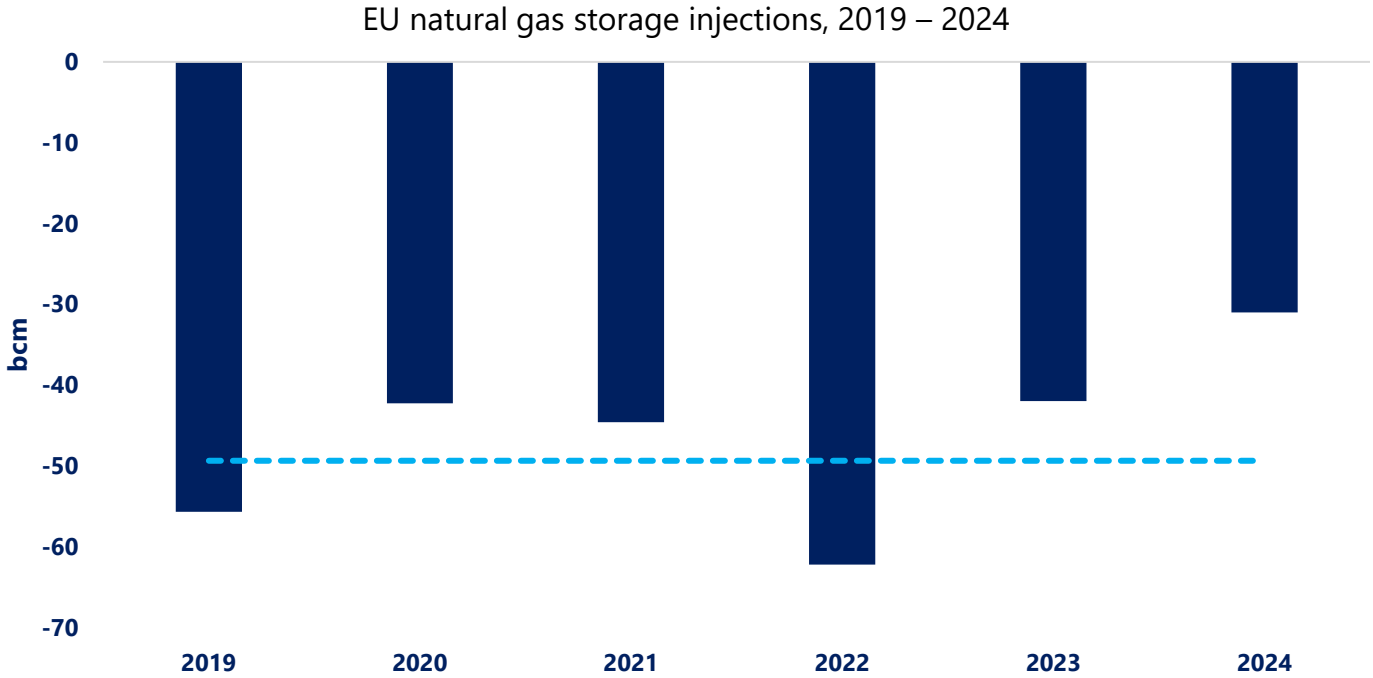
European gas demand declined marginally over the 2023/24 winter. The strong expansion of renewables and mild weather weighed on gas consumption –with losses partly offset by higher gas use in industry.

Heating intensity in Europe increased over the 2023/24 winter



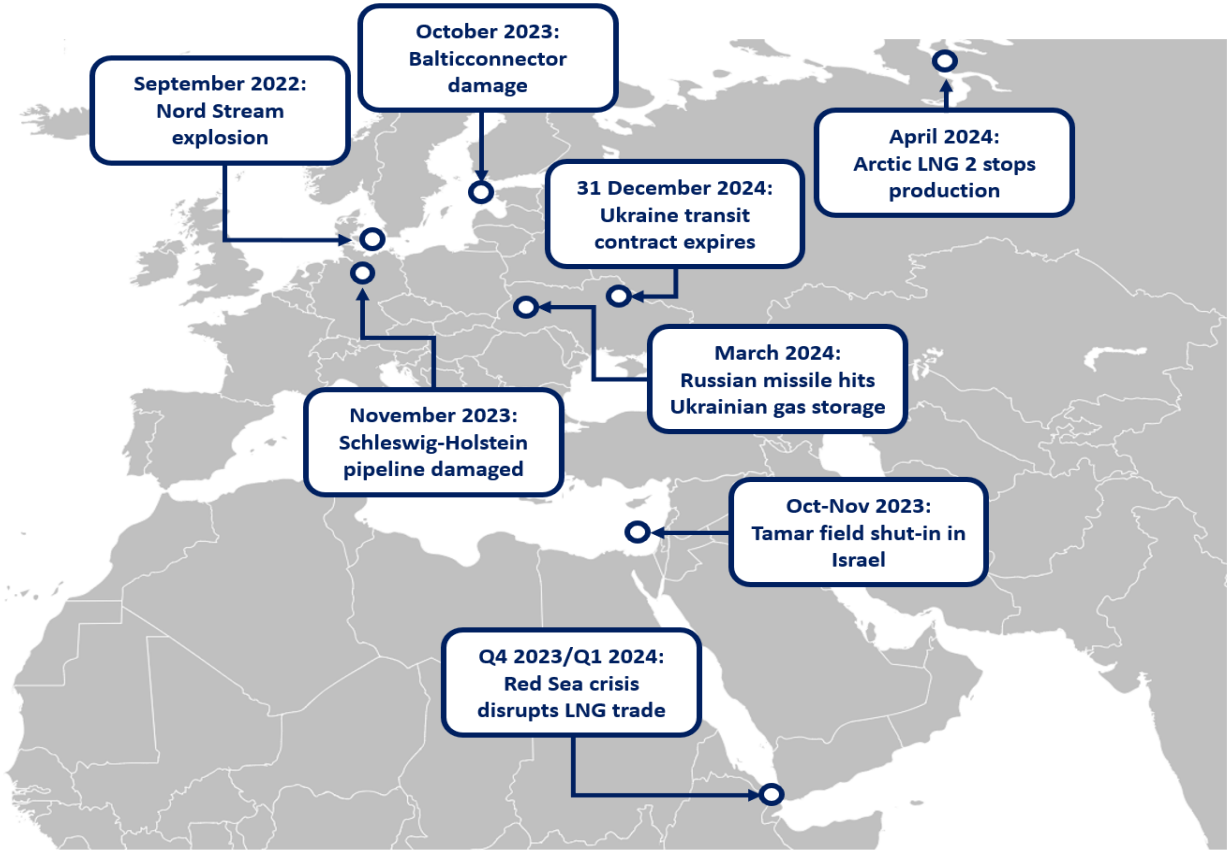
Heating intensity in the European rescom sectors increased marginally compared to the 2022/23 winter. This could indicate that the gas-saving measures of the previous two heating seasons are wearing off.

Record high European stocks mean lower injection needs



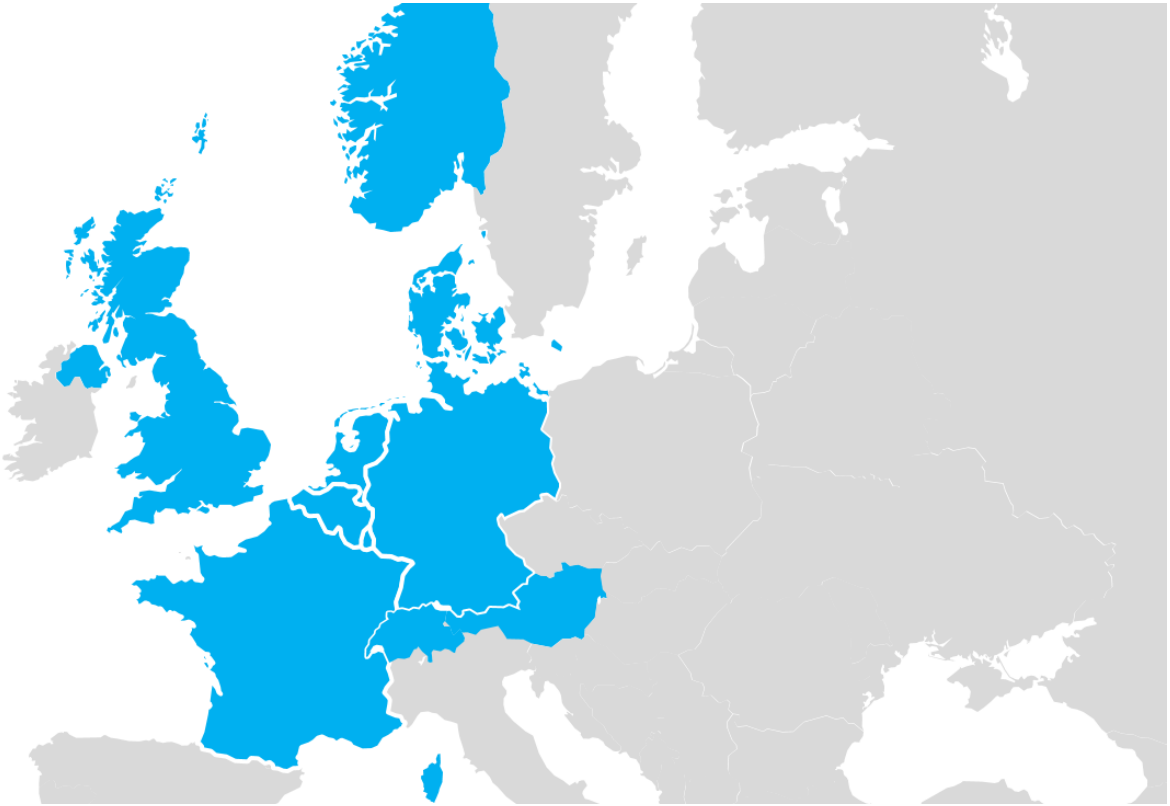
Storage injections 35% below their 5y average would suffice to reach the EU's 90% fill target by the start of the 2024/25 heating season. Lower injections could contribute to a further easing of market fundamentals.

Geopolitics present greatest short-term risk for gas markets



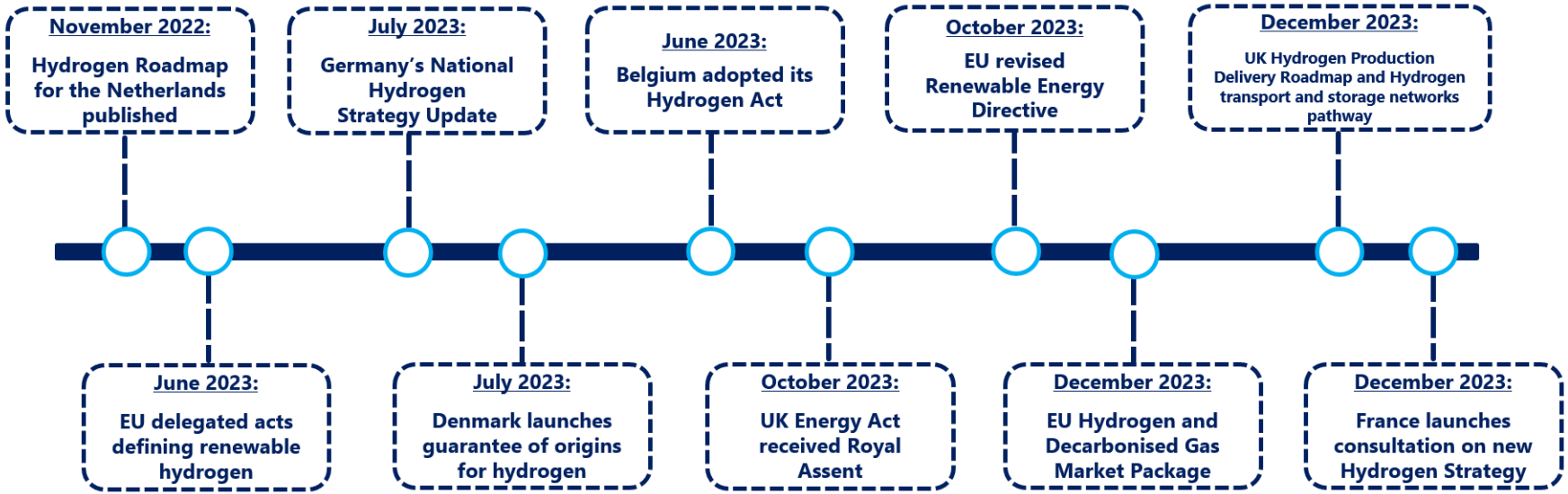
Northwest European Hydrogen Monitor

Northwest European Hydrogen Monitor: regional coverage



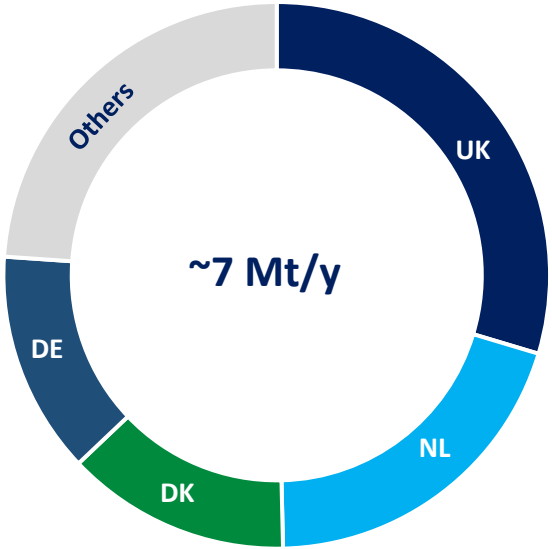
Hydrogen policies and regulations continued to shape up in 2023

Key hydrogen policies and regulations enacted in the European Union and Northwest Europe since November 2022

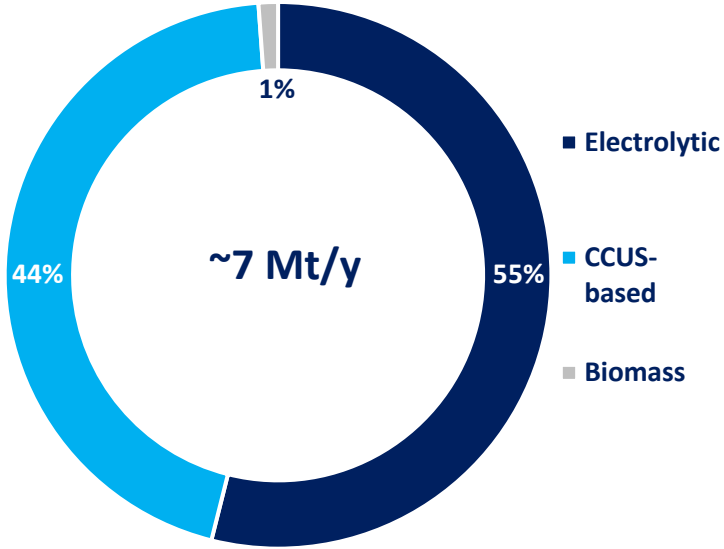


Low-emissions hydrogen production could reach 7 Mt/y by 2030…

Potential low-emissions hydrogen supply in Northwest Europe by country, 2030



Potential low-emissions hydrogen supply in Northwest Europe by type, 2030



The UK, the Netherlands, Denmark and Germany could contribute for three-quarters of Northwest Europe's low-emissions hydrogen production by 2030, with electrolytic hydrogen accounting for 55%.

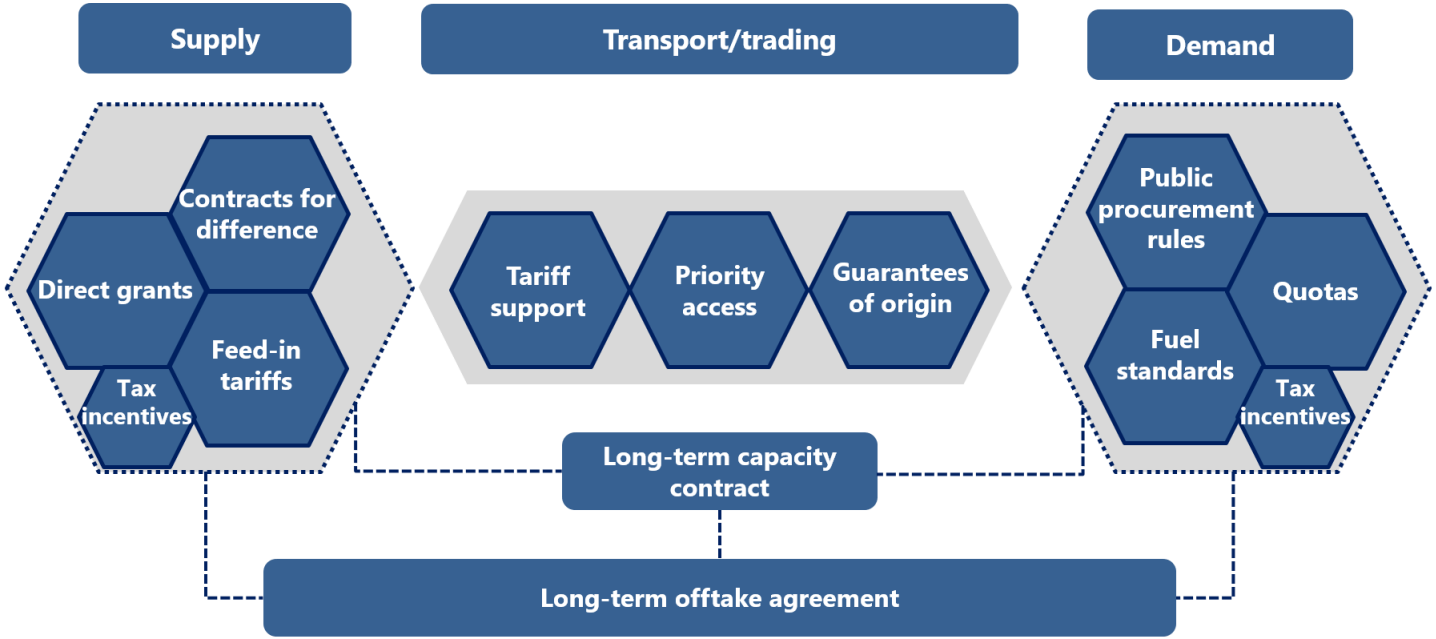
…less than 4% of projects are in advanced stage of development

Potential low-emissions hydrogen production in Northwest Europe in 2030, by status

More than 95% of the projects that could provide low-emissions hydrogen supply by 2030 are either undergoing feasibility studies or are in concept phase.

A holistic approach is required to support mechanisms

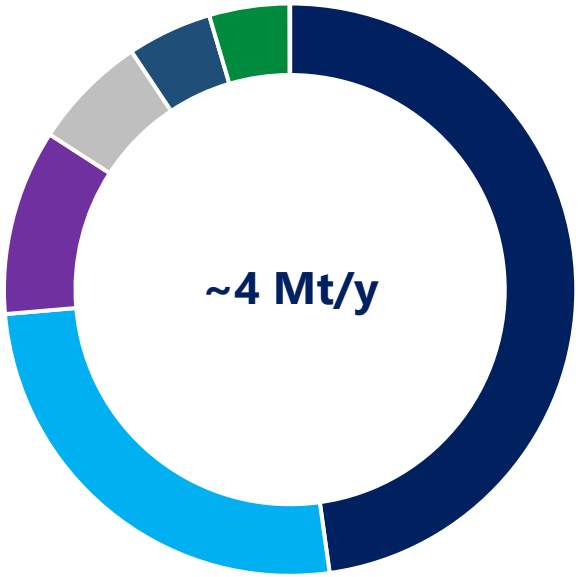
Simplified scheme of support mechanisms available along the low-emissions hydrogen value chain



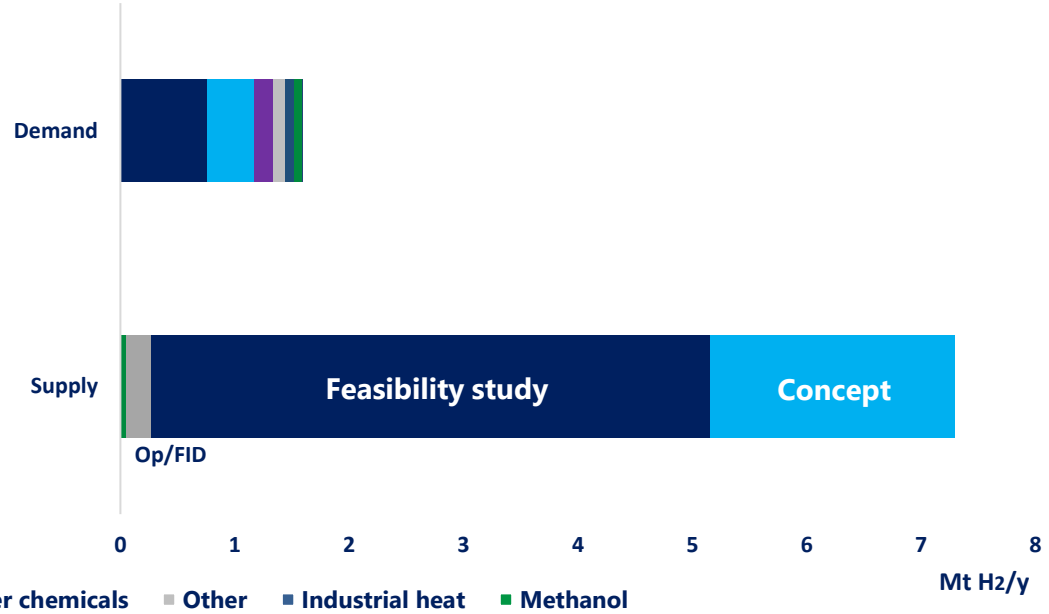
The development of a low-emissions hydrogen market will require a holistic approach to support mechanisms along the entire value chain, ranging from production to end uses.

Demand security will be crucial to scale-up the hydrogen market

Current hydrogen demand in EU NWE* markets



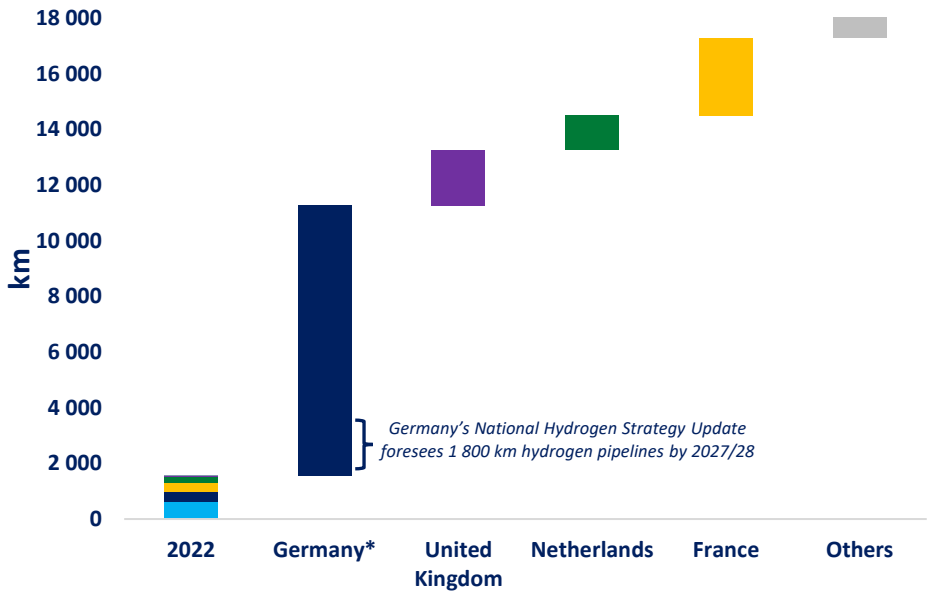
Implied renewable hydrogen demand under RED III in EU NWE markets by 2030 vs potential supply



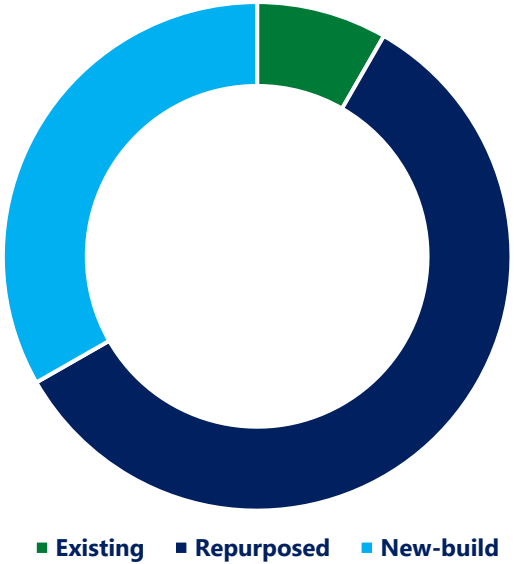
Low-emissions hydrogen projects in China and the United States have a greater level of maturity, with many of them have already taken FID and/or being under construction.

Hydrogen networks could reach over 18 000 km by 2030

Existing and planned hydrogen pipelines in Northwest Europe, 2022 and 2030

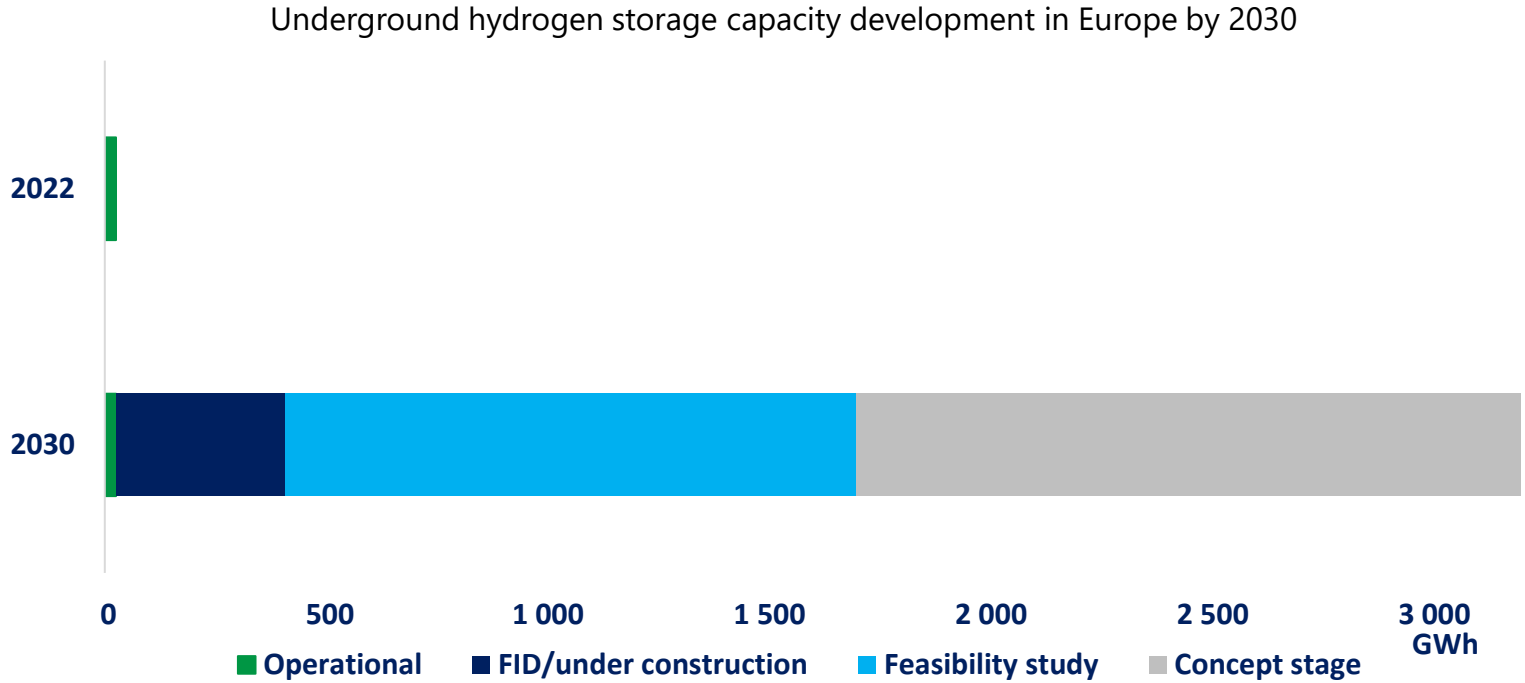


Hydrogen pipelines in Northwest Europe in 2030, by origins



Based on the current targets set by northwest European countries, the region's hydrogen network could increase by tenfold to over 18 000 km by 2030.

Hydrogen storage project developments are lagging behind



Over 3 TWh of hydrogen storage projects were announced in Europe, with most of them are either at the conceptual phase or undergoing feasibility studies.