



GEOPOLÍTICA, ENERGÍA Y RECURSOS MINERALES

III FORO MINERÍA Y VIDA. Nemesio Fernández-Cuesta Mayo 2026

US Blockade Keeps Pressuring Strait of Hormuz

■ Iranian internal waters ■ Iranian territorial waters



Sources: US Department of Defense April 13 press conference, Flanders Marine Institute (2026)



3.5 to 5.5 mb/d of pipeline capacity with the potential to re-direct crude flows

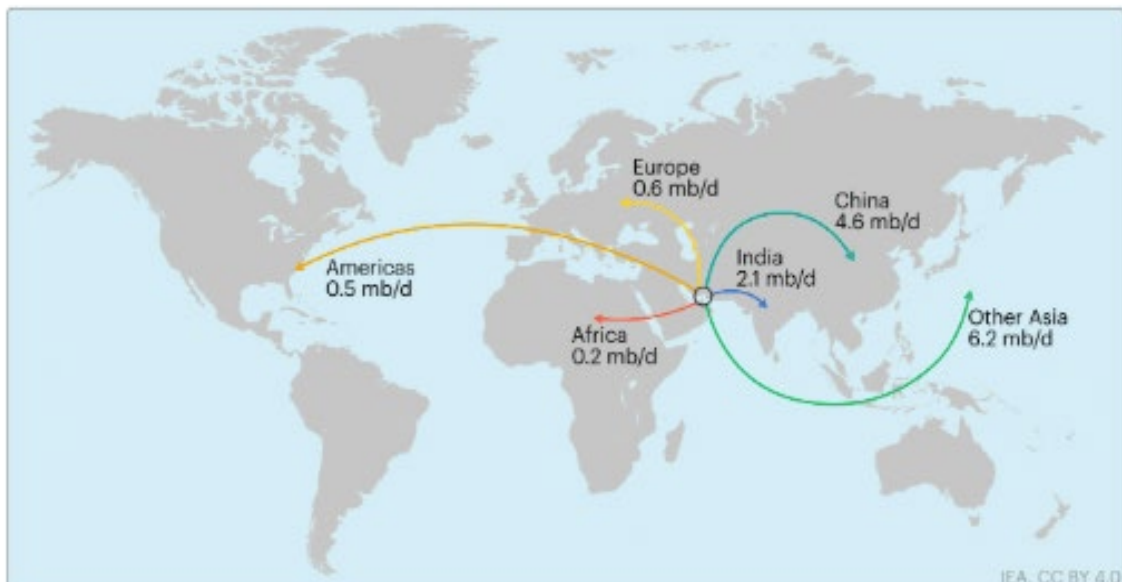
- 20 MB/D, 25% OIL SEABORNE TRADE TRANSIT HORMUZ STRAIT

	Crude oil (including condensates)	Products	Total
Bahrain	0.00	0.21	0.21
Iran	1.69	0.72	2.41
Iraq	3.32	0.31	3.63
Kuwait	1.40	0.97	2.37
Qatar	0.73	0.69	1.43
Saudi Arabia	5.43	0.80	6.23
Saudi-Kuwaiti Neutral Zone	0.35	0.00	0.35
United Arab Emirates	2.02	1.22	3.24
Total Hormuz	14.95	4.93	19.87

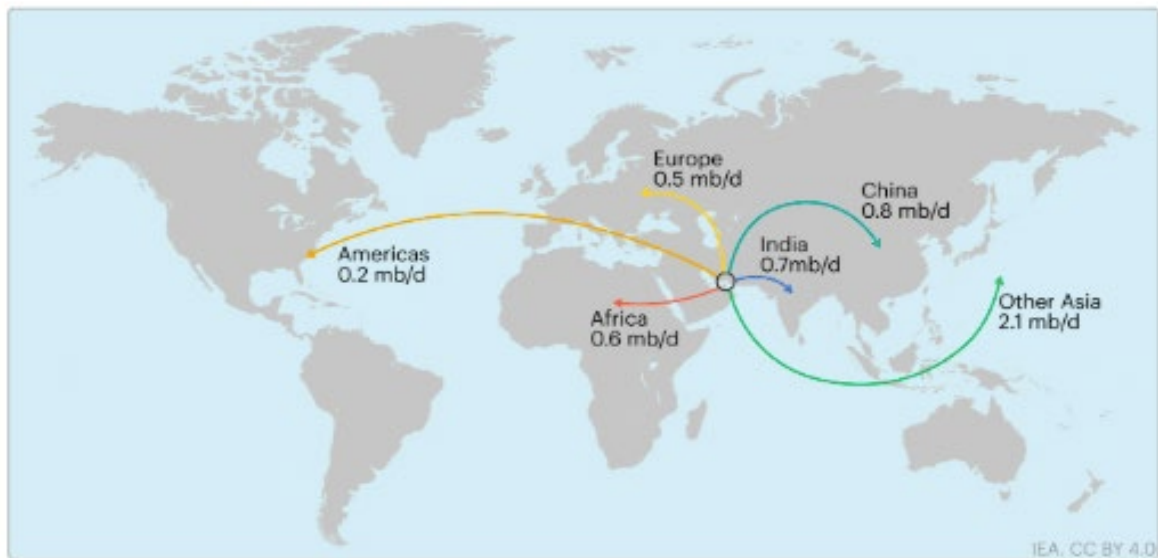
Note: For the full year 2025.
Sources: IEA analyses based on Kpler.

- ABOUT 93% OF QATAR'S LNG EXPORTS TRANSIT THROUGH THE STRAIT, REPRESENTING 19% OF GLOBAL LNG TRADE

Crude oil exports transiting the Strait of Hormuz by destination (2025)



Oil product exports transiting the Strait of Hormuz by destination (2025)

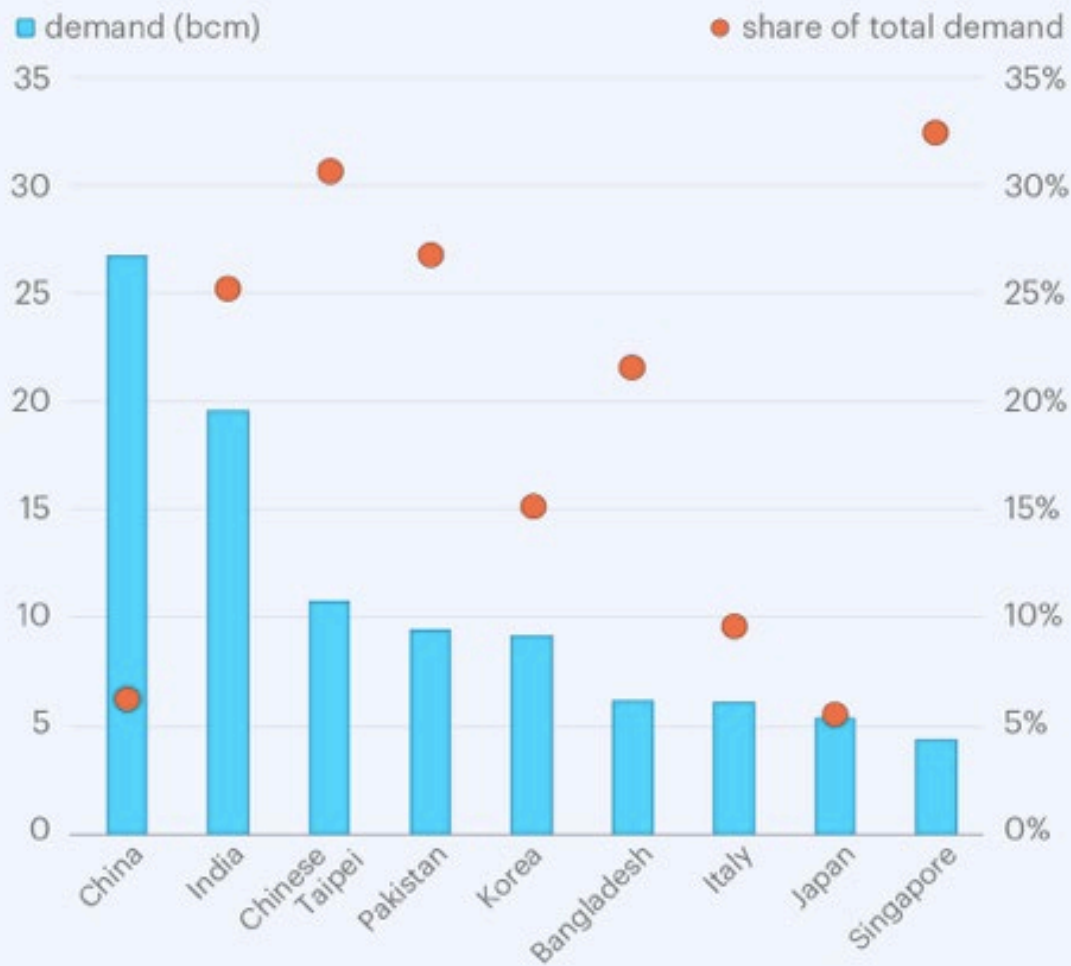


Total does not match sum of adding individual numbers due to destinations not indicated. Source: IEA analysis based on Kpler.

LNG flows via the Strait of Hormuz face major disruption



LNG flows to selected countries via the Strait of Hormuz (left axis) and share of these flows in total gas demand (right axis), 2025



CRUDE OIL PRODUCTION CLOSURES

Table 1. Estimated Strait of Hormuz closure-related disruptions in crude oil production

thousand barrels per day

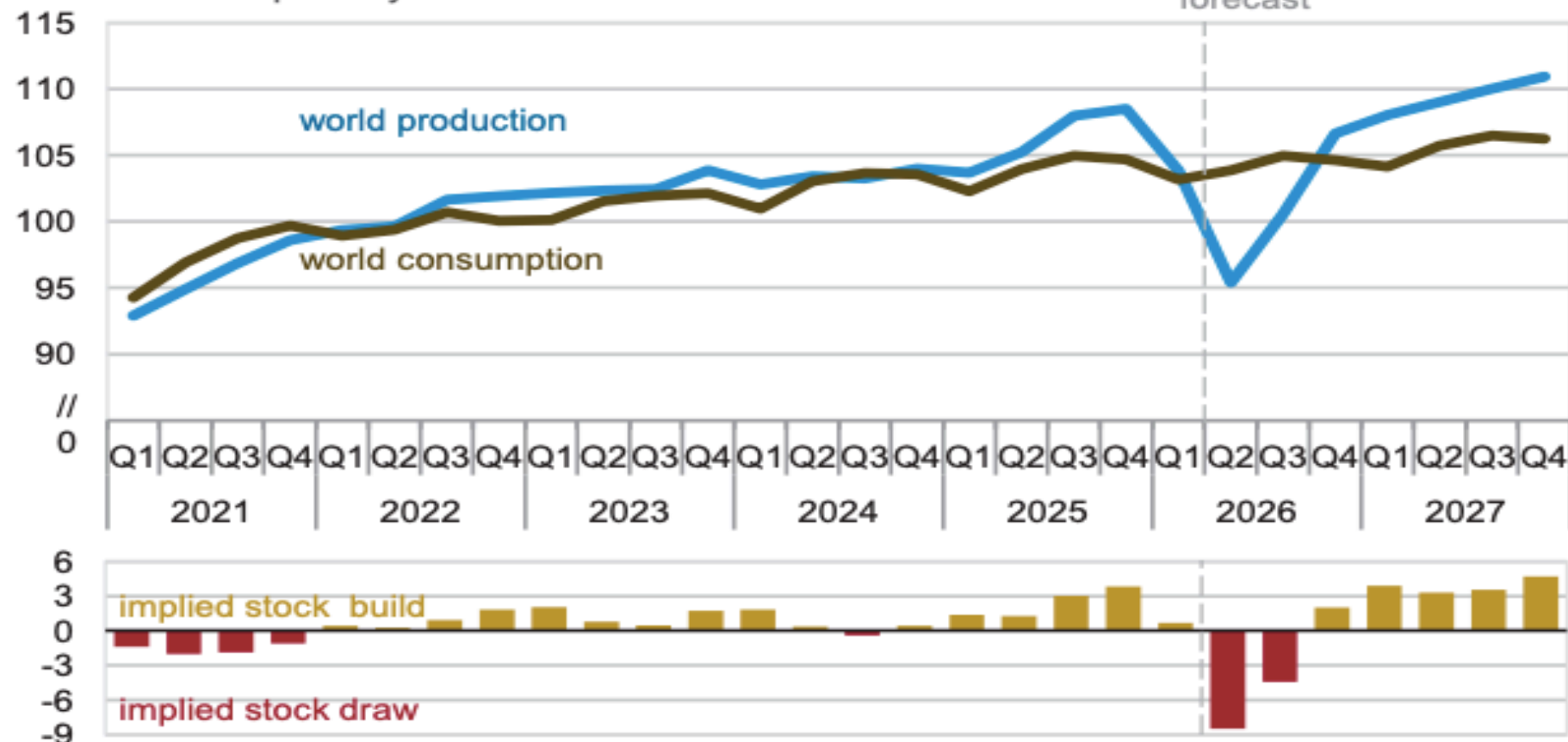
Country	Production Feb-26	Estimated shut-ins Mar-26	Forecast shut-ins Apr-26	Forecast shut-ins May-26	Forecast shut-ins Jun-26	Forecast shut-ins 3Q26	Forecast shut-ins 4Q26
Kuwait	2,560	1,400	2,050				
UAE	3,600	1,450	1,350				
Iran	3,390	130	230				
Iraq	4,400	2,870	3,230				
Qatar	557	450	500				
Bahrain	193	120	180				
Saudi Arabia	10,500	2,500	3,000				
Total	25,200	8,920	10,540	10,750	8,825	6,414	1,709

We only forecast aggregate disruptions for future months.

Data source: U.S. Energy Information Administration

World liquid fuels production and consumption balance

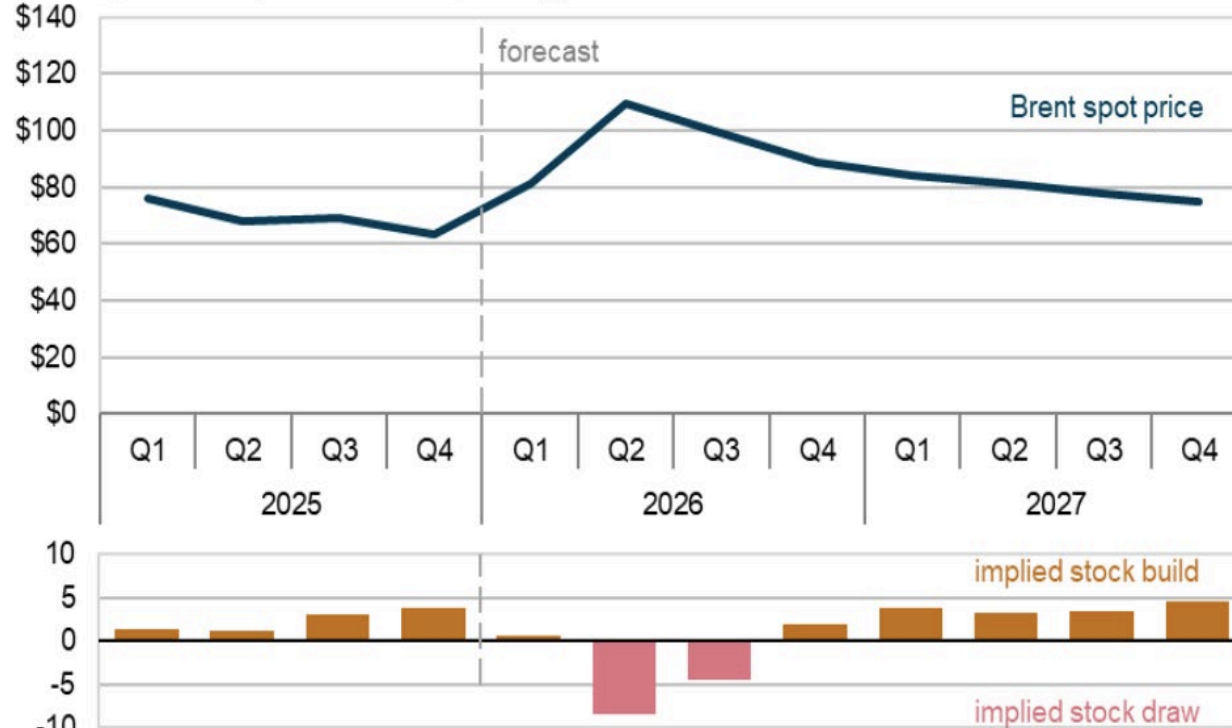
million barrels per day



Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, May 2026

BRENT PRICE FORECAST

Brent crude oil spot price and global inventory changes
dollars per barrel (million barrels per day)

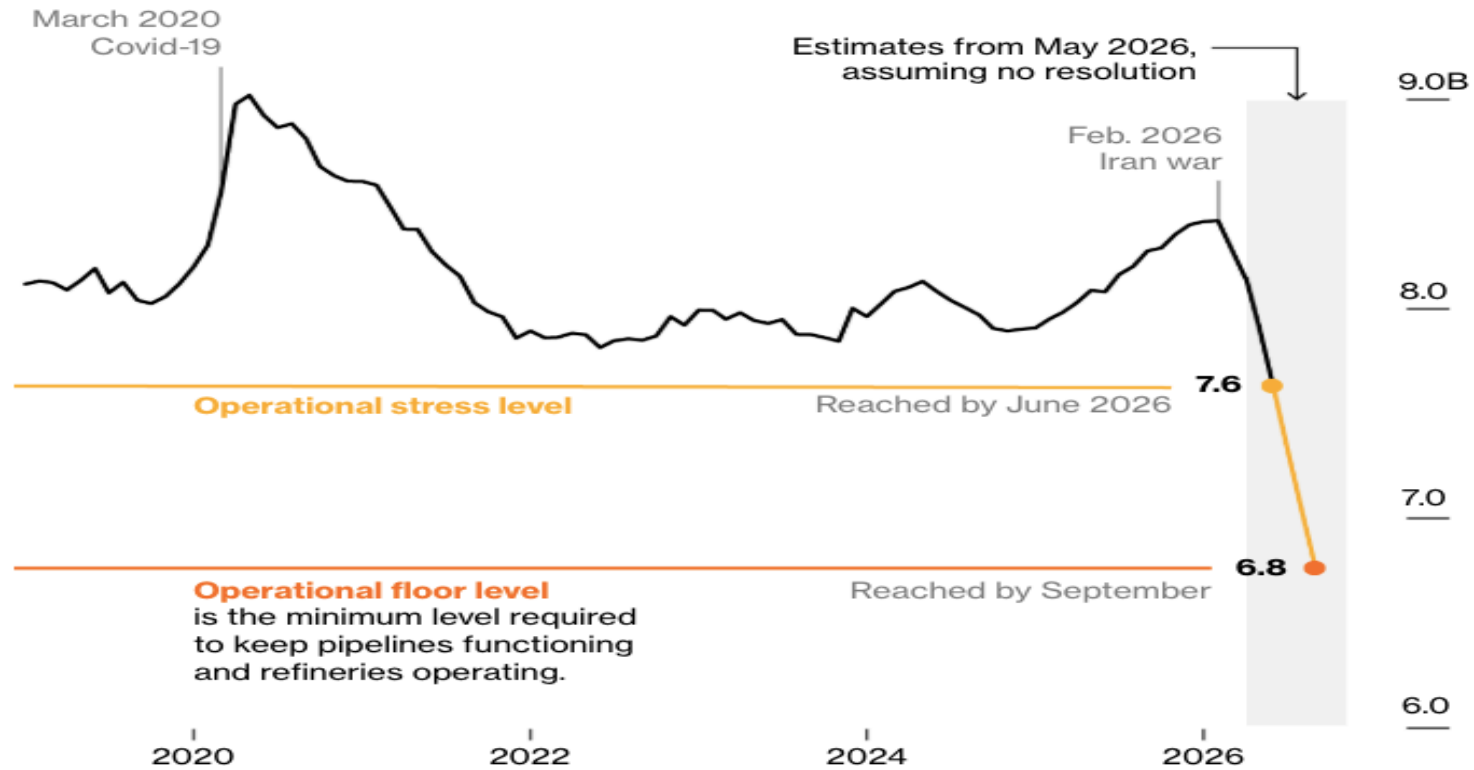


Data source: U.S. Energy Information Administration, *Short-Term Energy Outlook*, May 2026

- BASIC ASSUMPTION: STRAIT REOPENS LATE MAY
- BRENT PRICES
 MAY-JUNE \$ 106
 4Q 26 \$ 89
 2027 \$ 79
- IF STRAIT REOPENS LATE JUNE + \$ 20

World Oil Inventories Are Falling at a Record Pace

Total visible oil inventories, in billions of barrels

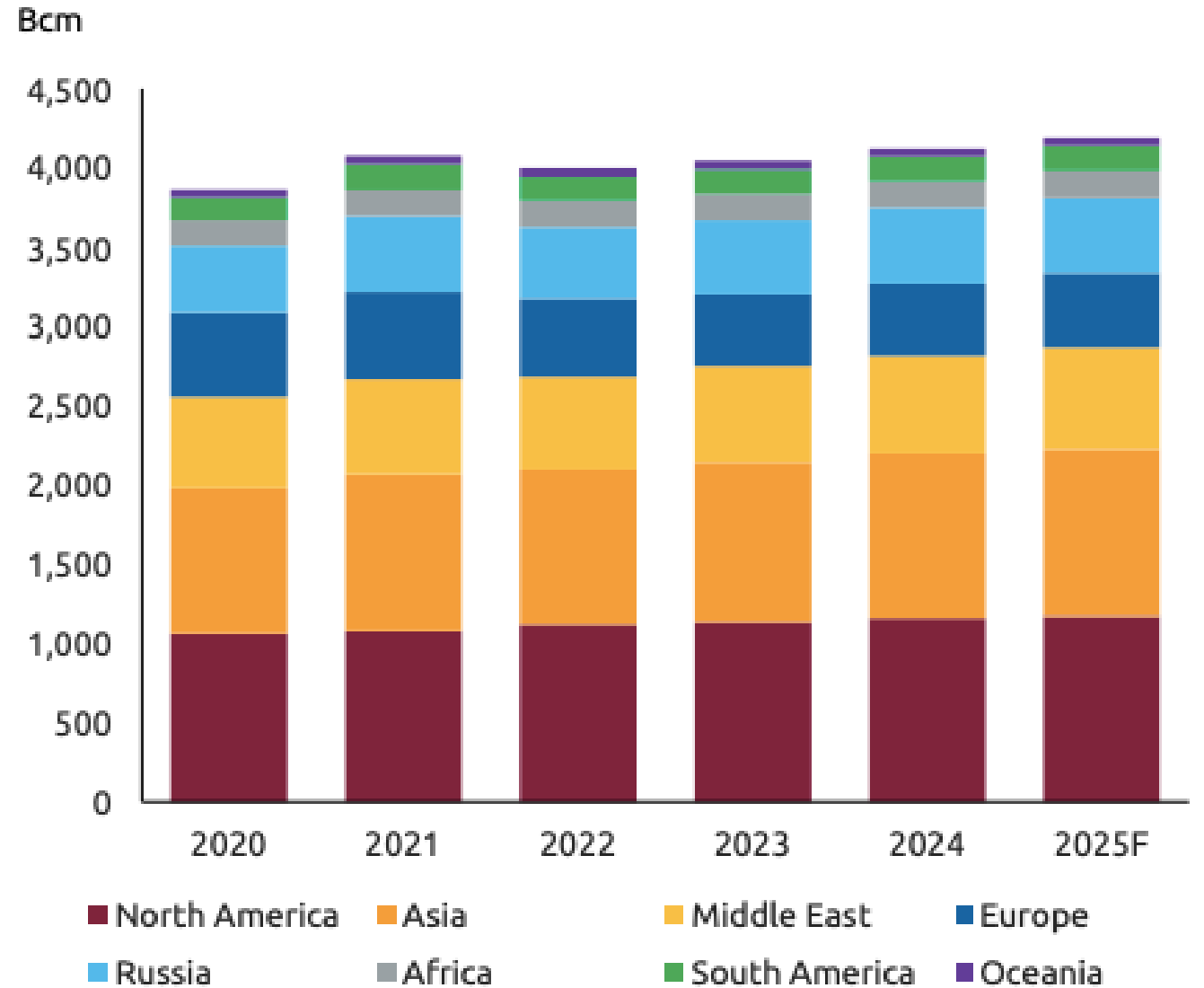


Note: Total visible inventories are drawn from primary storage, and secondary storage such as distributors and wholesalers. Estimated inventories assume no resolution in June, and demand reduction at 5.6 million barrels per day

Sources: JPMorgan Commodities Research using data from Kpler, IEA, EIA, OilChem, PAJ, Singapore, JODI

GLOBAL GAS DEMAND

- Global Gas Demand is reaching all time high.
- 2024 4122 BCM (+1.9%)
- 2025 (f) 4193 BCM (+1.7%)

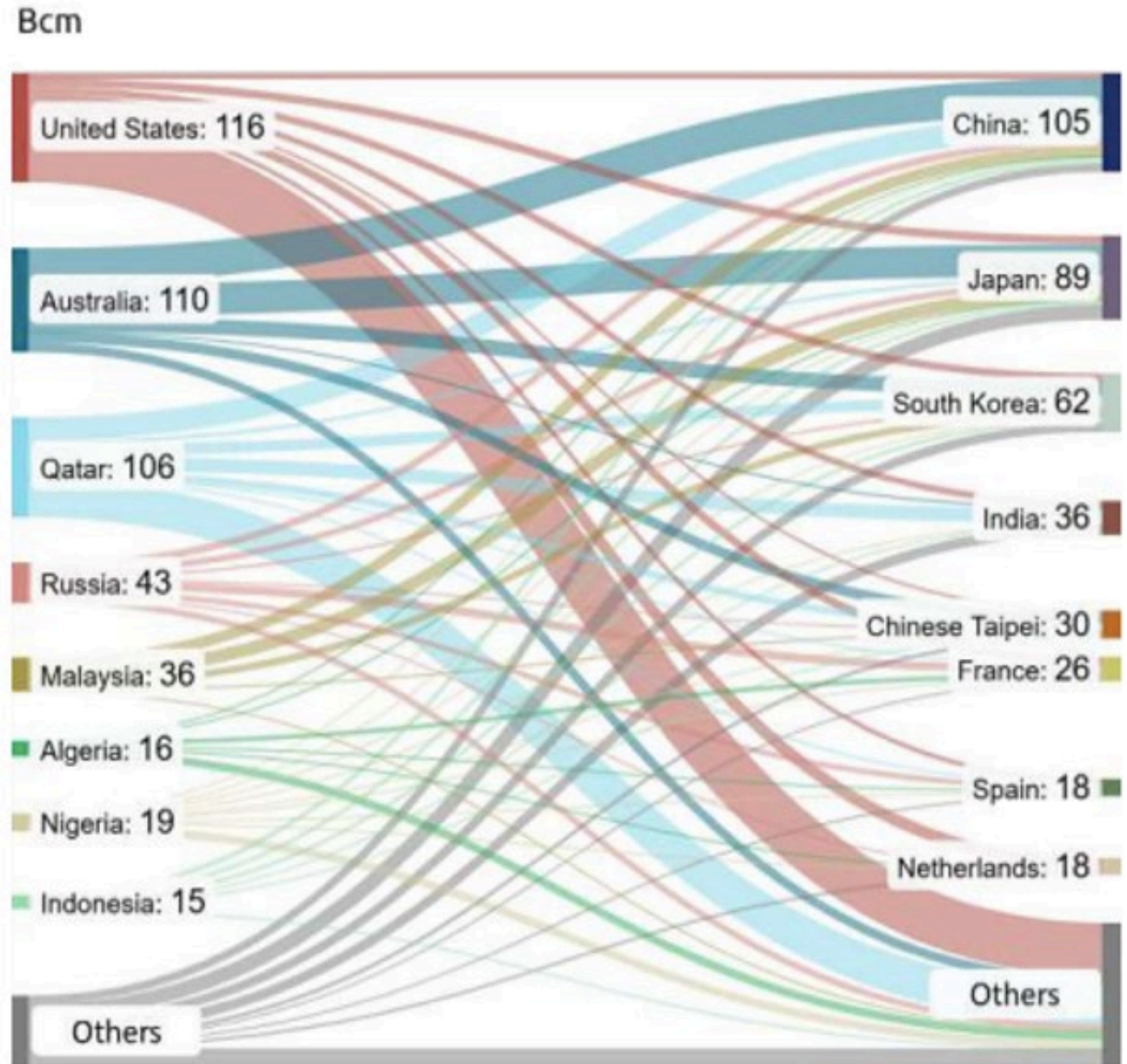


Source: Rystad Energy

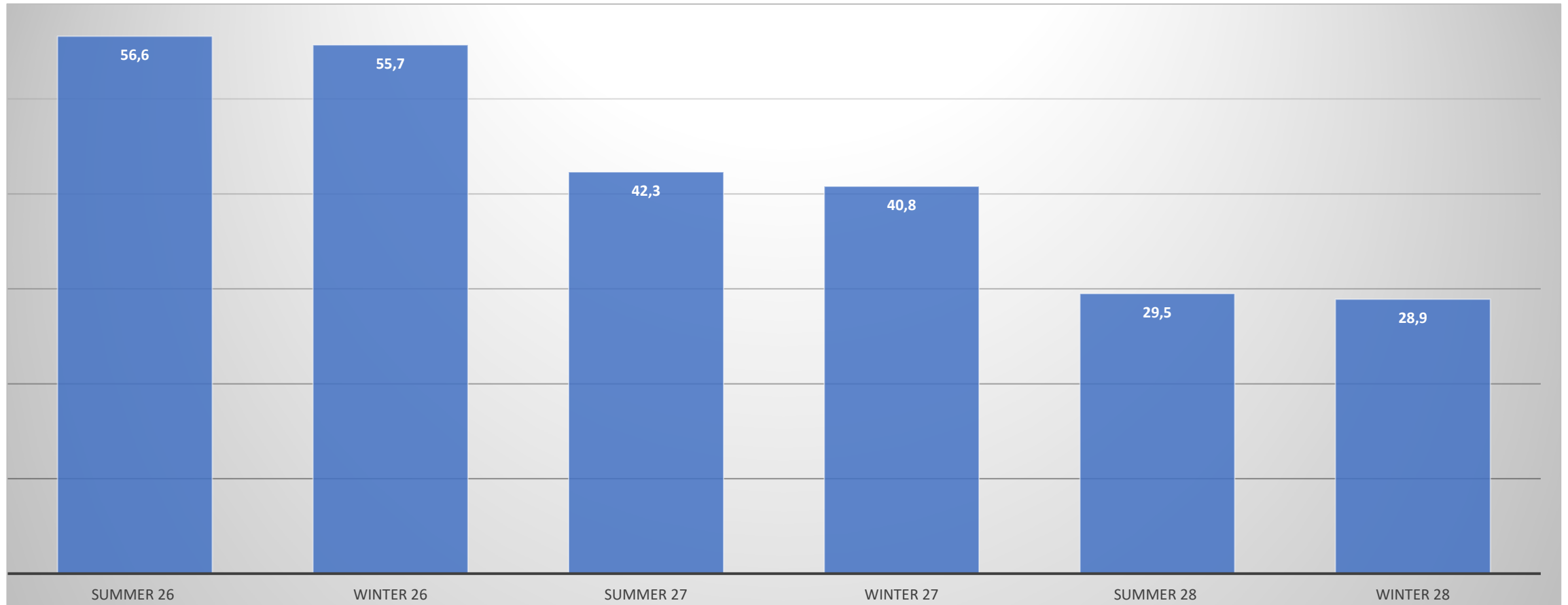
Global Gas Trade

Global Gas Trade		
TOTAL	1270 BCM	30.8%
BY PIPELINE	715 BCM	17.3%
AS LNG	555 BCM	13.5%

Figure 12: Global LNG trade flows for 2024 for top net importers and exporters

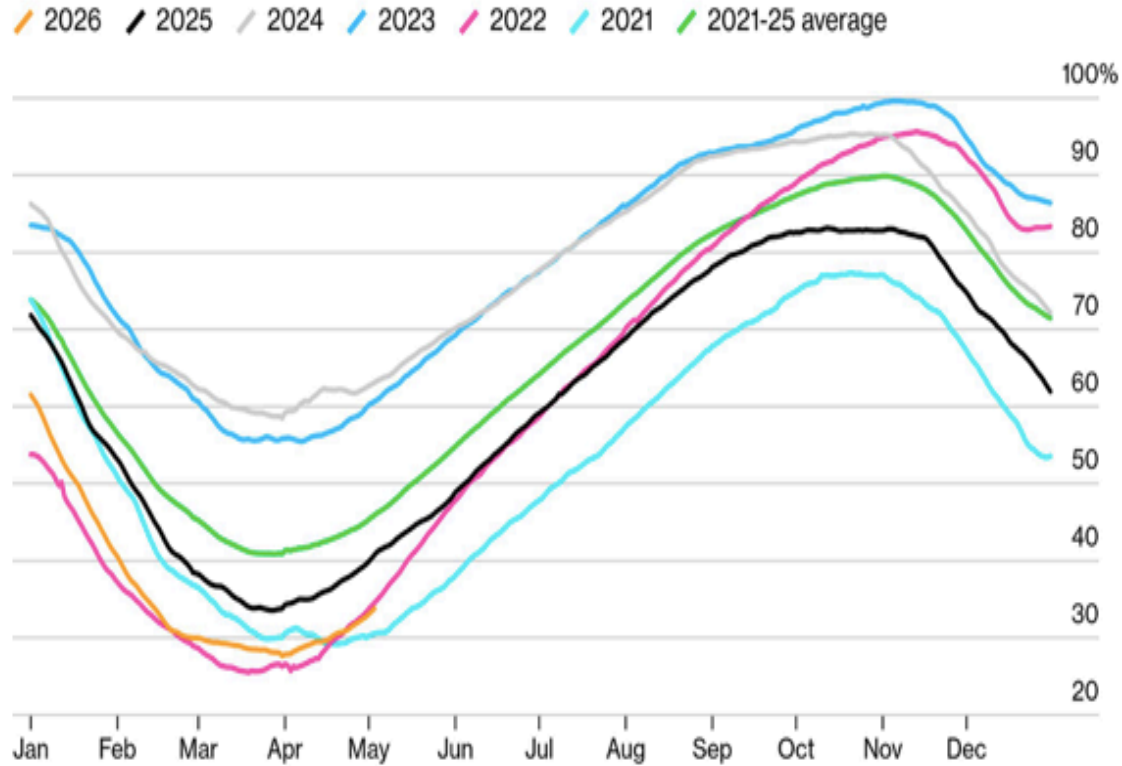


TTF FUTURE PRICES 2026-2028 (€/MWH)



KEY QUESTION FOR EUROPEAN GAS PRICE

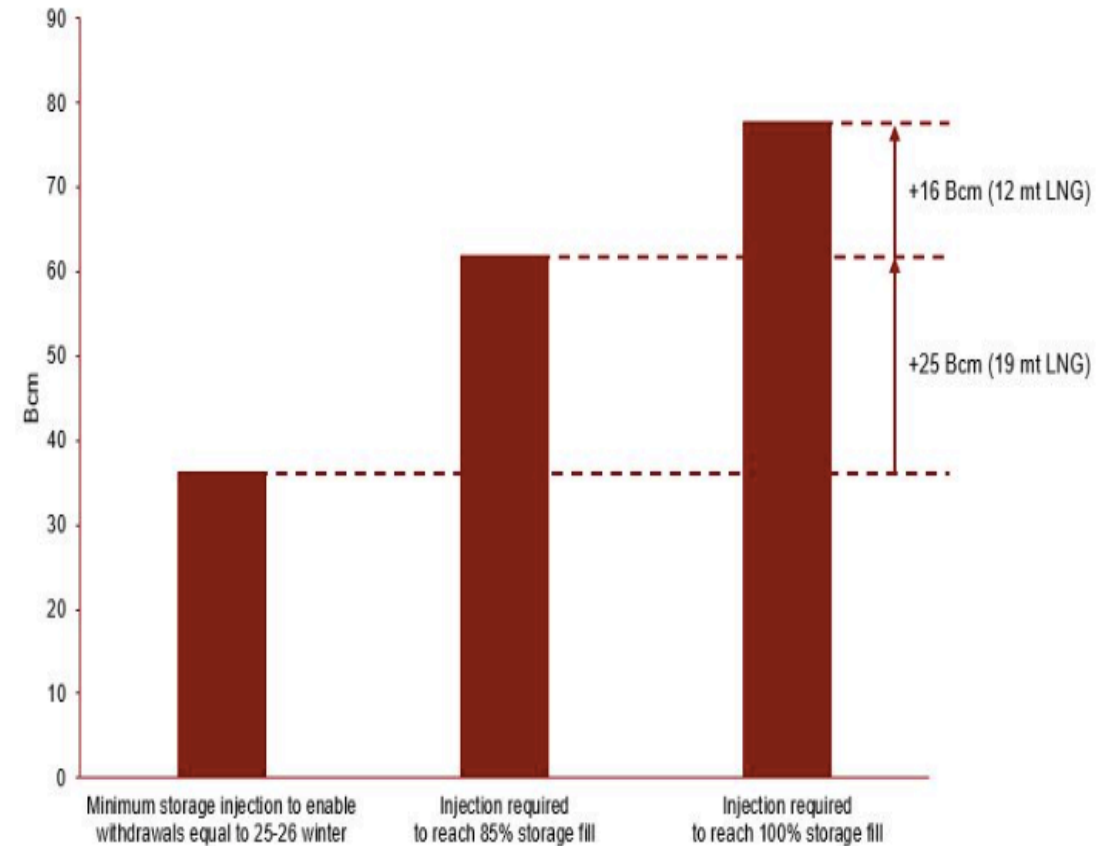
Europe's Gas Tanks Are Lagging the Average for the Season



Source: Gas Infrastructure Europe

Bloomberg

EU storage injections in summer 2026 to reach different fill levels by 1st October



KEY QUESTION FOR GLOBAL LNG MARKET

China's LNG Imports Begin to Recover

Yet deliveries remain lower than the five-year seasonal average

China LNG Imports (30 Day Moving Average) / Five-Year Average [2021-2025]



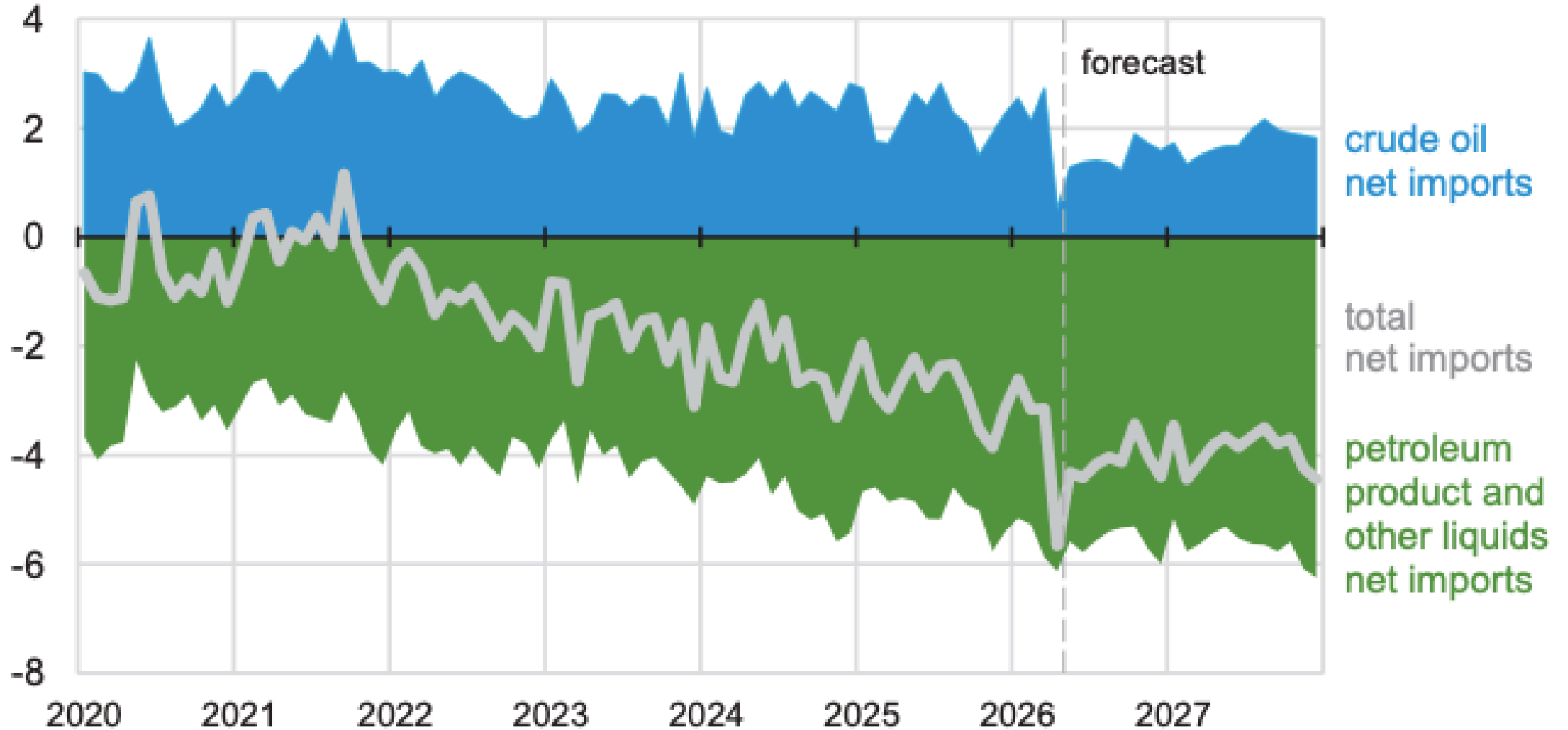
Source: Ship-tracking data compiled by Bloomberg

Bloomberg



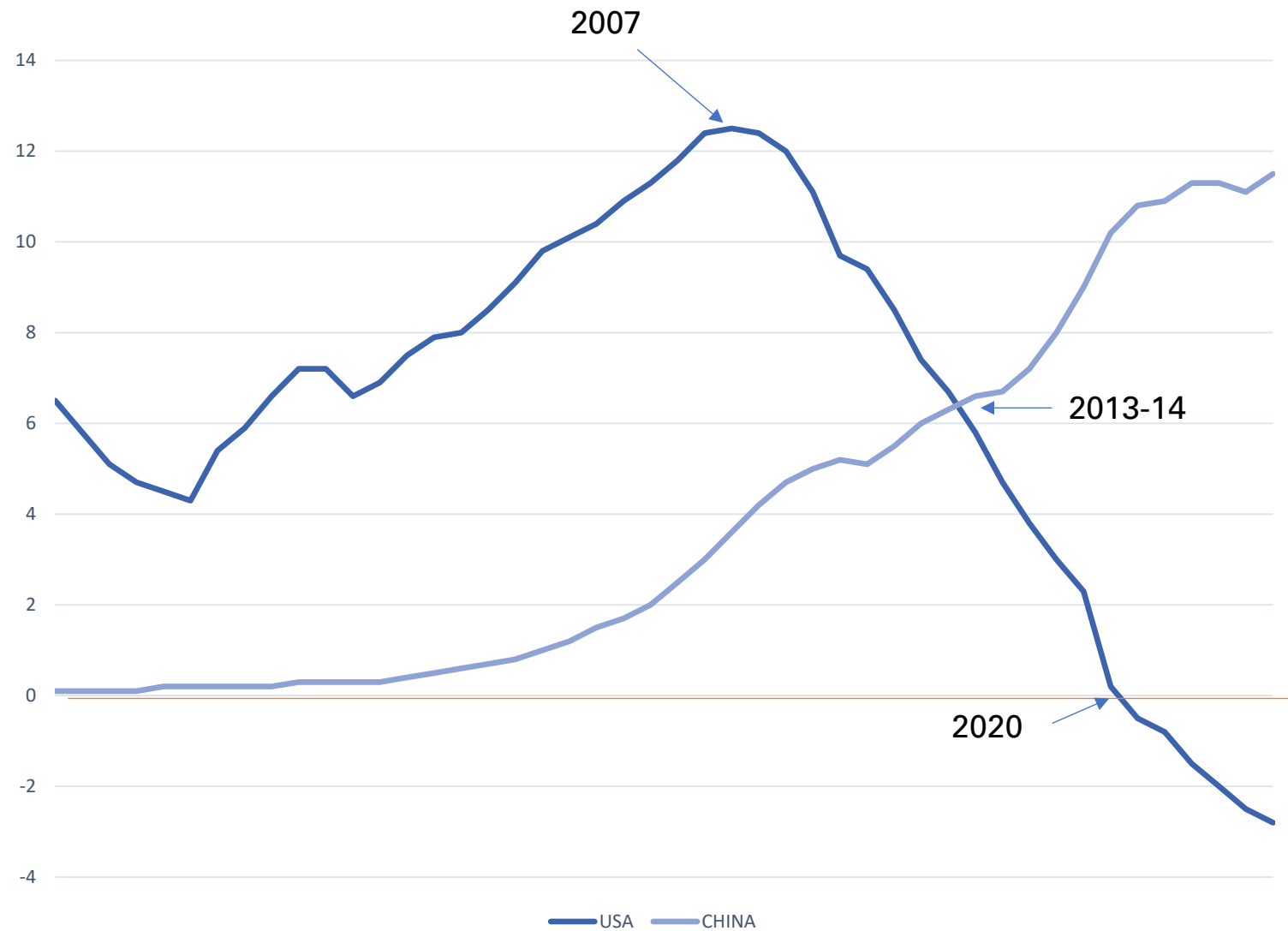
U.S. net imports of crude oil and liquid fuels

million barrels per day



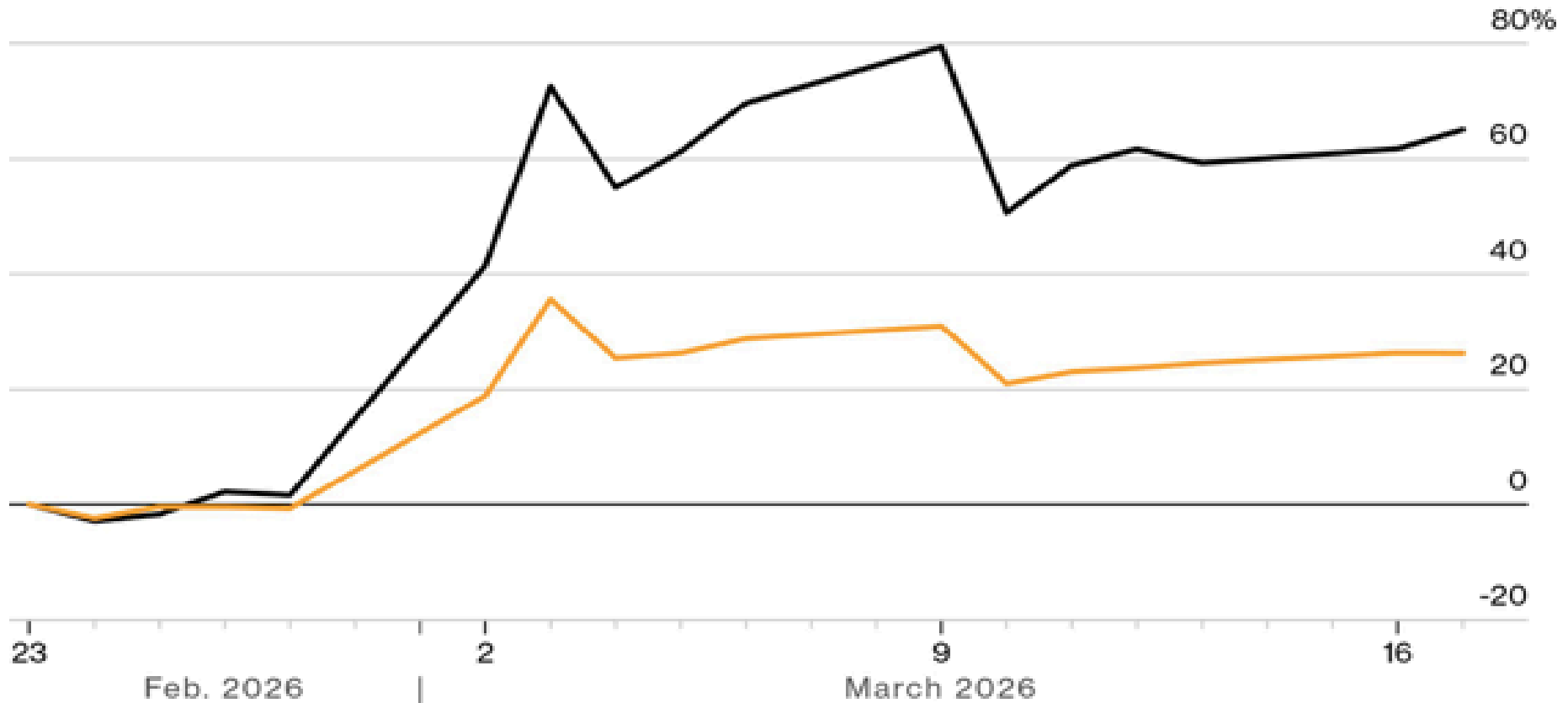
Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, May 2026

USA & CHINA OIL AND OIL PRODUCTS NET IMPORTS 1980-2025 (MBD)



Gas Rally Outpaces Gains in Power Markets

German power contract for April / Benchmark gas contract for April



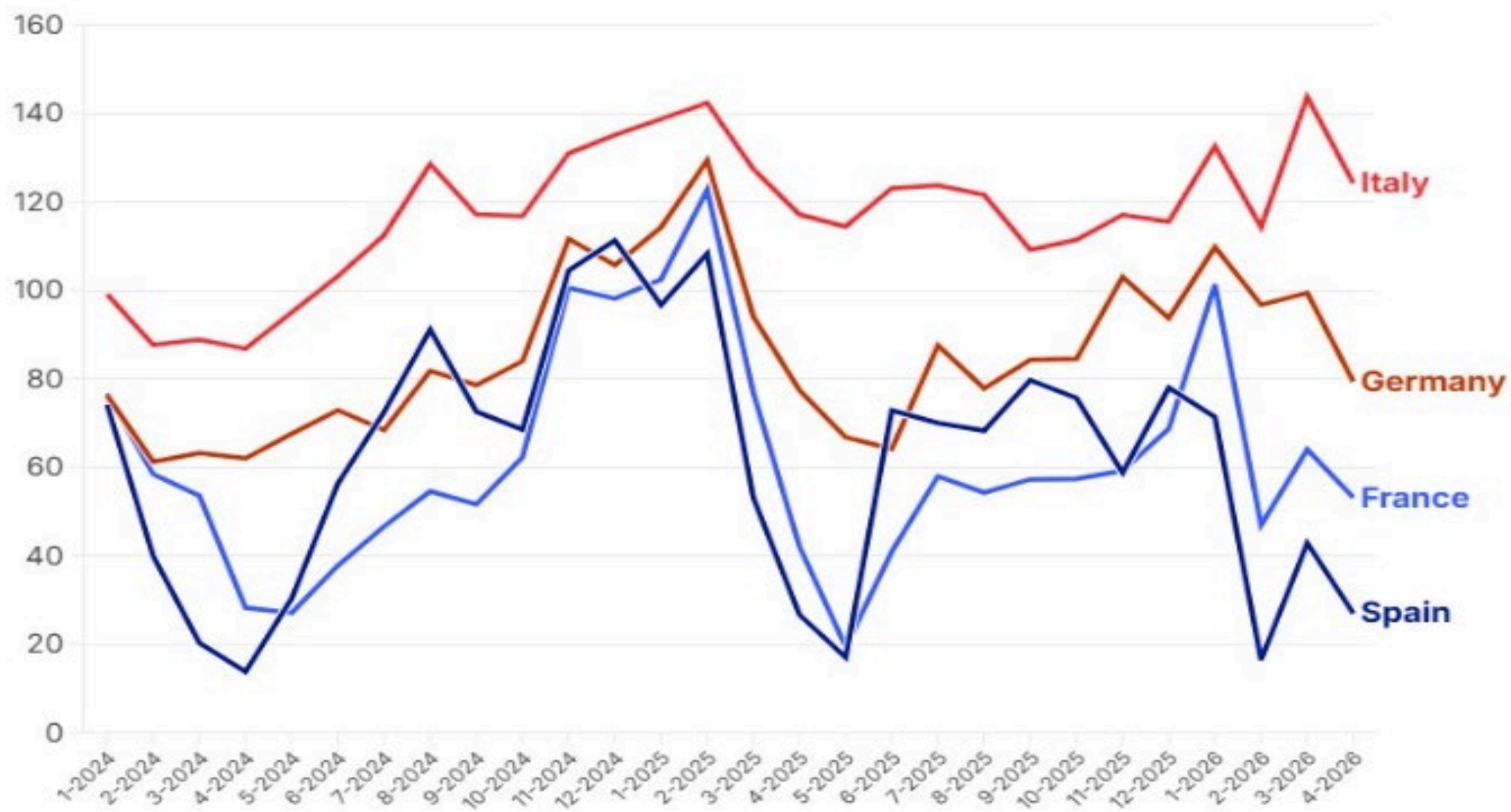
Note: Prices normalized to 100 on Feb 23, 2026

Source: EEX, ICE

Bloomberg

Gas dependence drives higher electricity prices in Italy and Germany

European wholesale baseload power prices, €/MWh

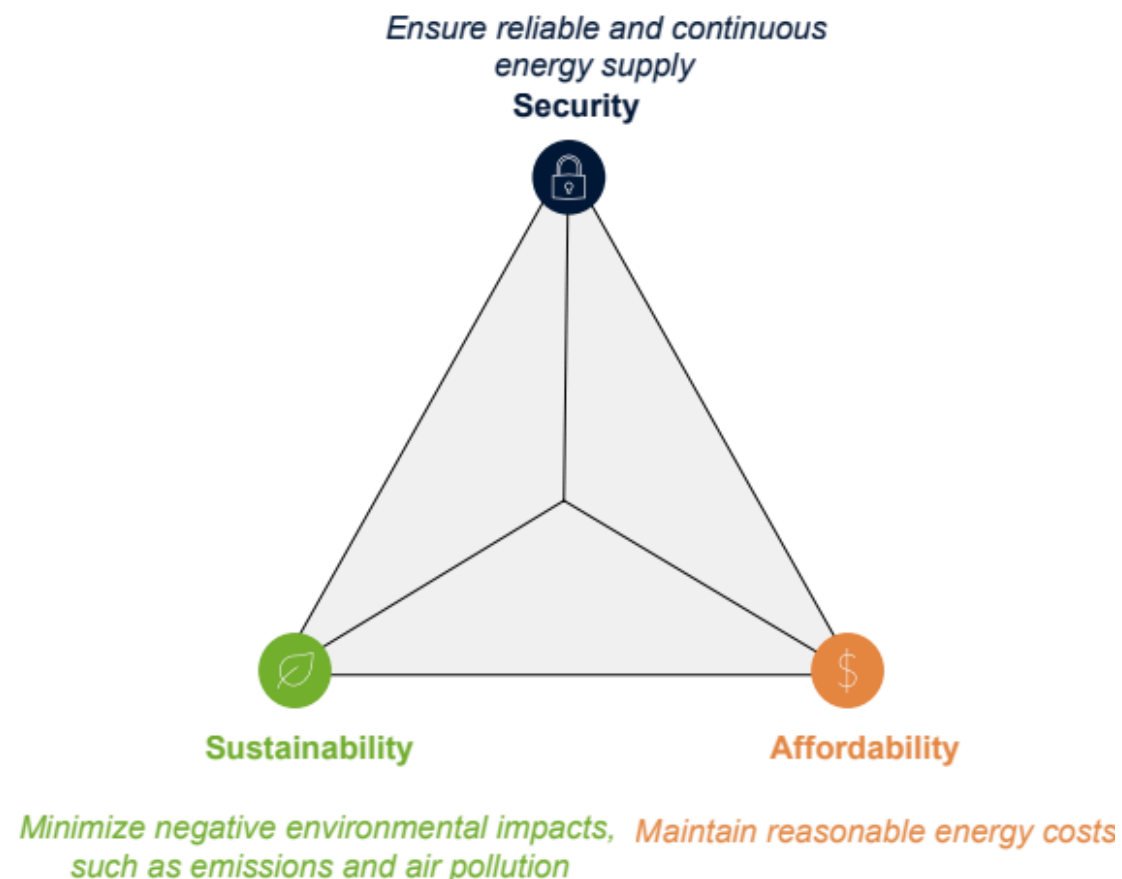


Energy Policy Goals

Promote a secure and affordable energy supply that fosters economic development.

Achieve net-zero carbon emissions in accordance with available technologies, in a cost-efficient and socially acceptable manner.

Figure 70: The energy trilemma



Source: Rystad Energy

- Problems to solve:
- Material cost and availability
 - Higher voltage
 - Higher specific energy
 - Thermal stability
 - Life Cycle.

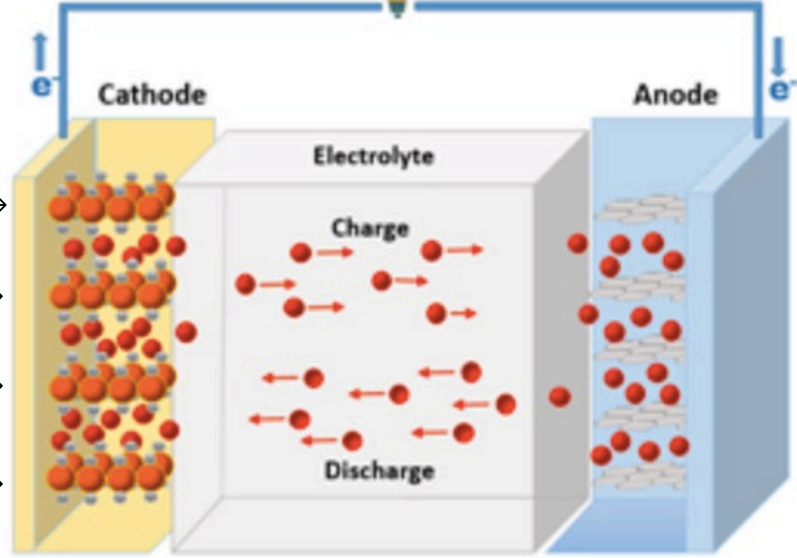


Cathode Collector (Positive electrode) Aluminum.

Anode Collector (Negative electrode) Copper.

- LCO Lithium Cobalt Oxide
- LMO Lithium Manganese Oxide
- NMCO Nickel Manganese Cobalt Oxide
- LIP Lithium Iron Phosphate

- ← Graphite based material
- ← Silicon
- ← Conductivity enhancers and binders



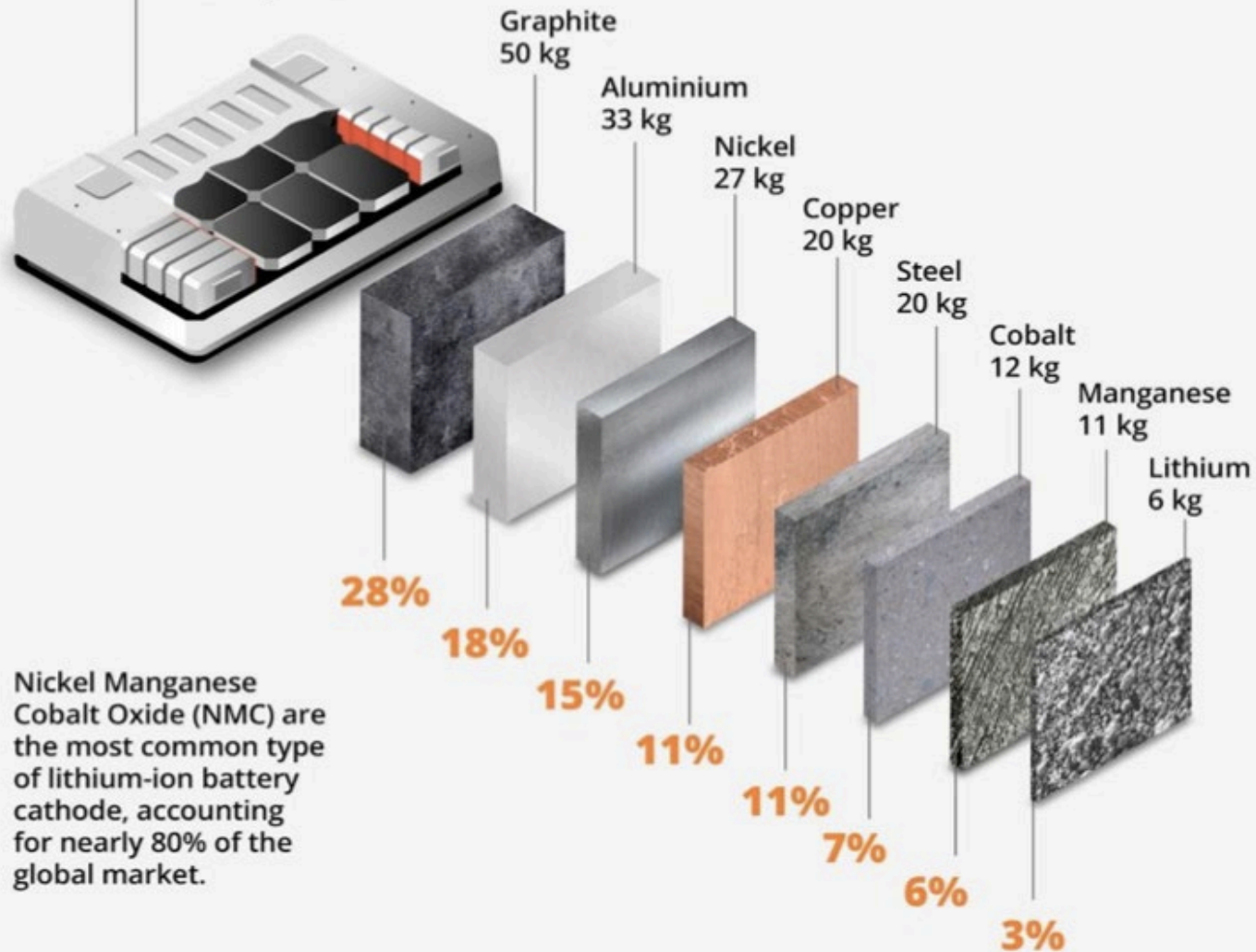
Operation Principle of Lithium-ion Battery

Liquid electrolyte + Porous separator: Lithium salt + solvents.
 Alternatives Lithium polymer/ solid electrolyte: glass

Electric Vehicle
Battery Pack

Average composition of NMC lithium-ion batteries

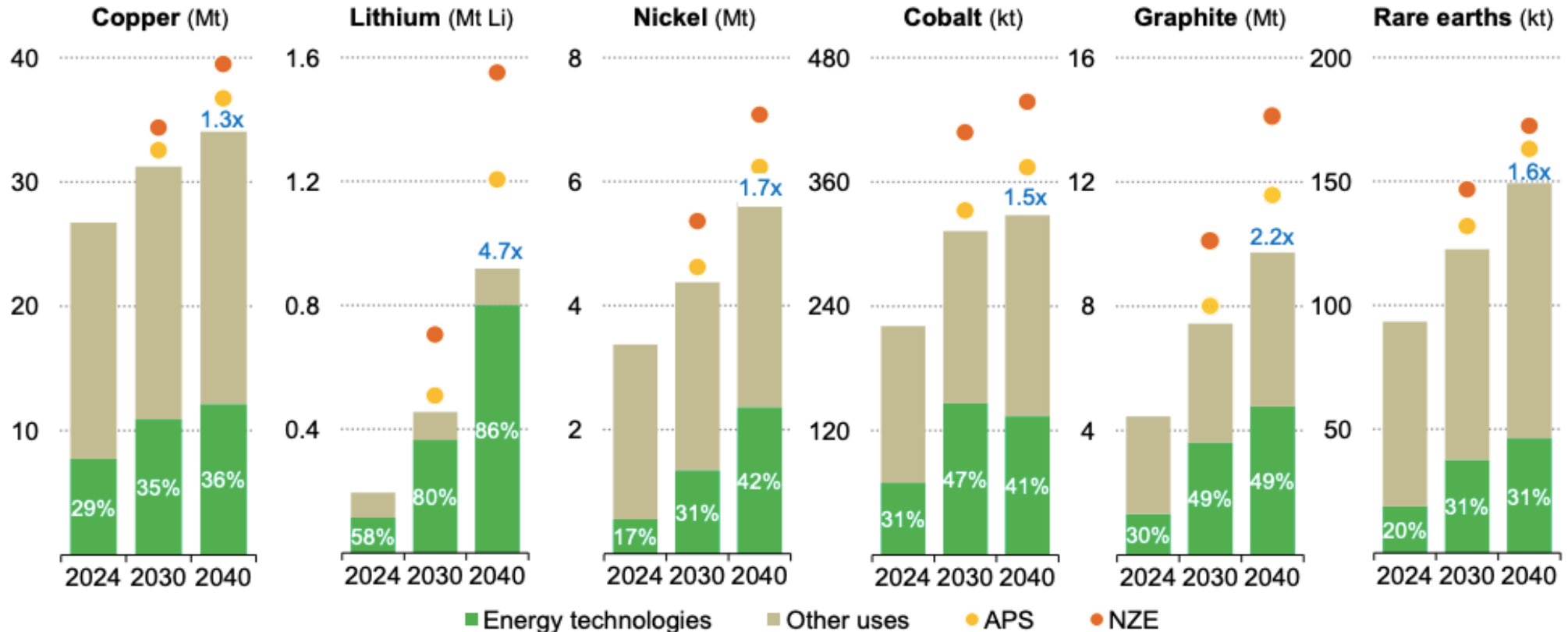
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Metals needed for Battery Manufacturing

Demand for critical minerals continues to rise across all scenarios, driven by the rapid deployment of energy technologies

Global critical minerals demand in the STEPS

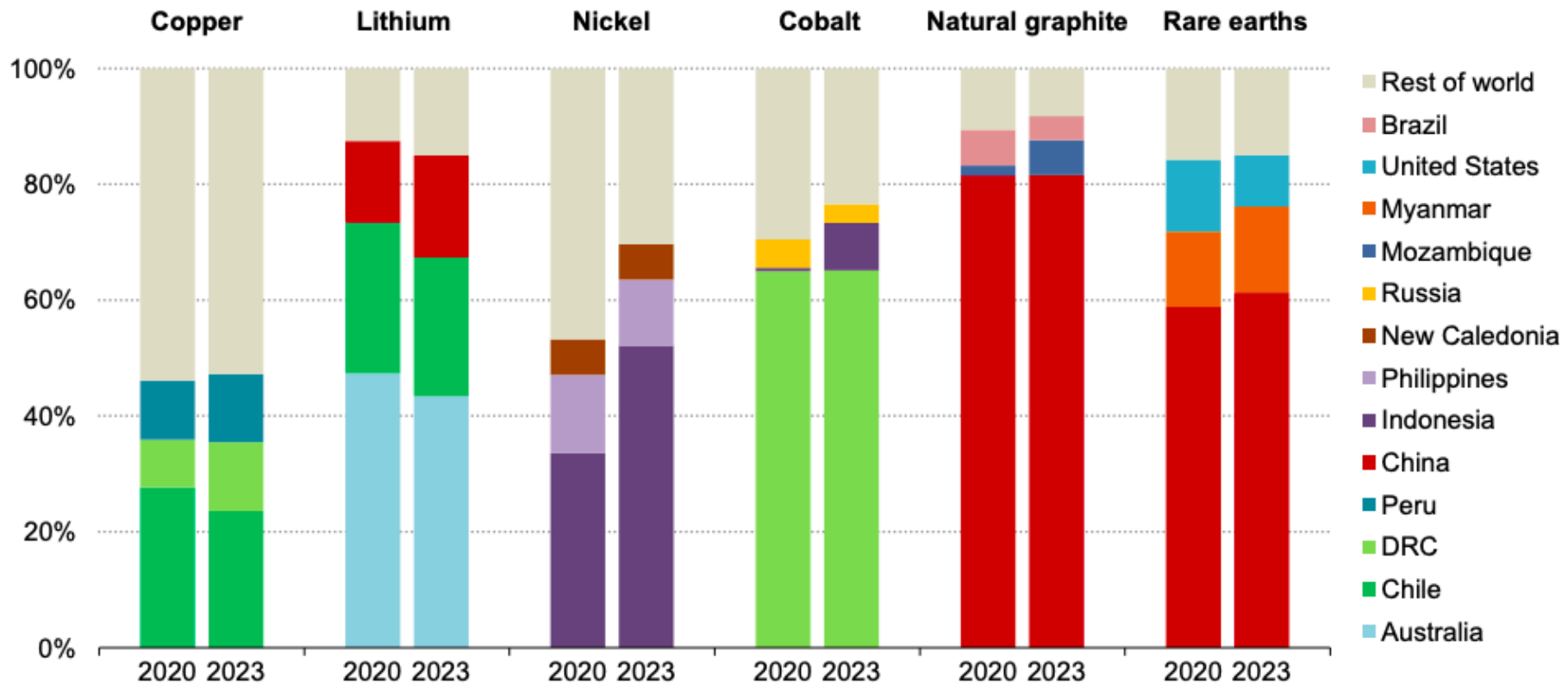


IEA. CC BY 4.0.

Notes: STEPS = Stated Policies Scenario; Mt = million tonnes; kt = kilotonnes; APS = Announced Pledges Scenario; NZE = Net Zero Emissions by 2050 Scenario. The figures for copper are based on refined copper (excluding direct-use scrap). Those for rare earth elements are for magnet rare earth elements only. Growth rates (in blue) are between 2024 and 2040.

Production growth has been accompanied by rising levels of geographical concentration, with the trends particularly pronounced for nickel and cobalt

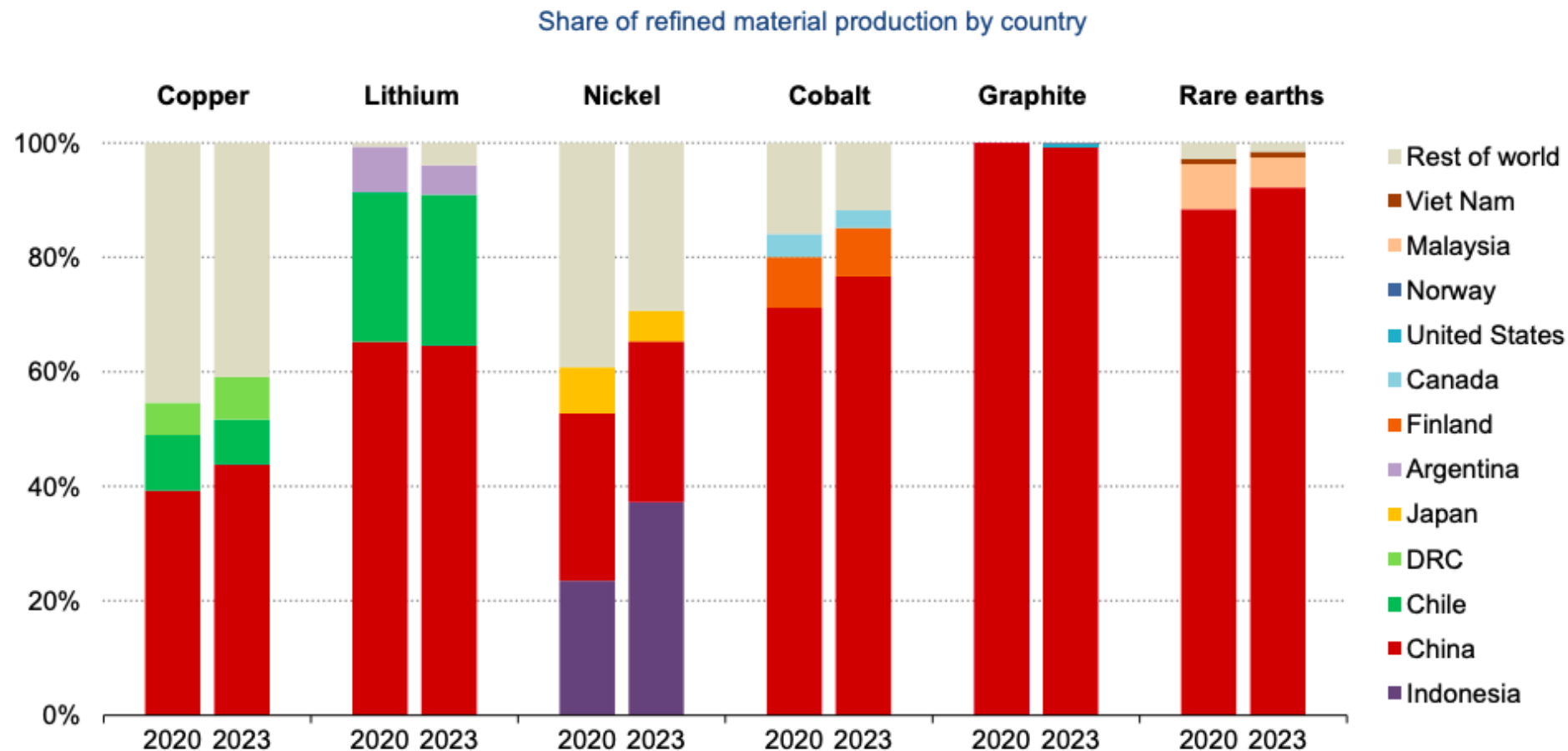
Share of mined or raw material production by country



IEA. CC BY 4.0.

Notes: DRC = Democratic Republic of the Congo. Graphite extraction is for natural flake graphite. Rare earths are magnet rare earths only.

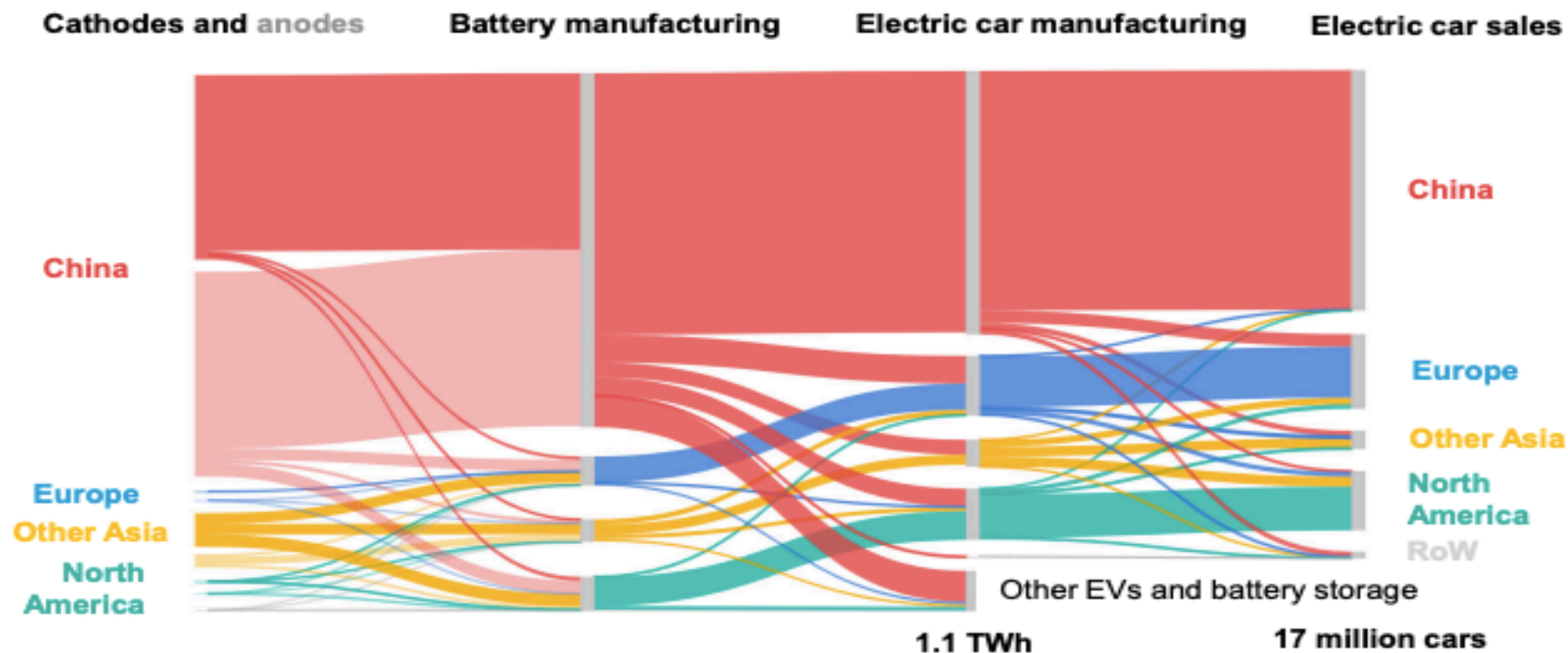
The level of geographical concentration for refined products has increased in recent years



IEA. CC BY 4.0.

Note: Graphite is based on spherical graphite for battery grade. Rare earths are magnet rare earths only.

Global manufacturing and trade flows of electric cars, lithium-ion batteries, and key components, 2024



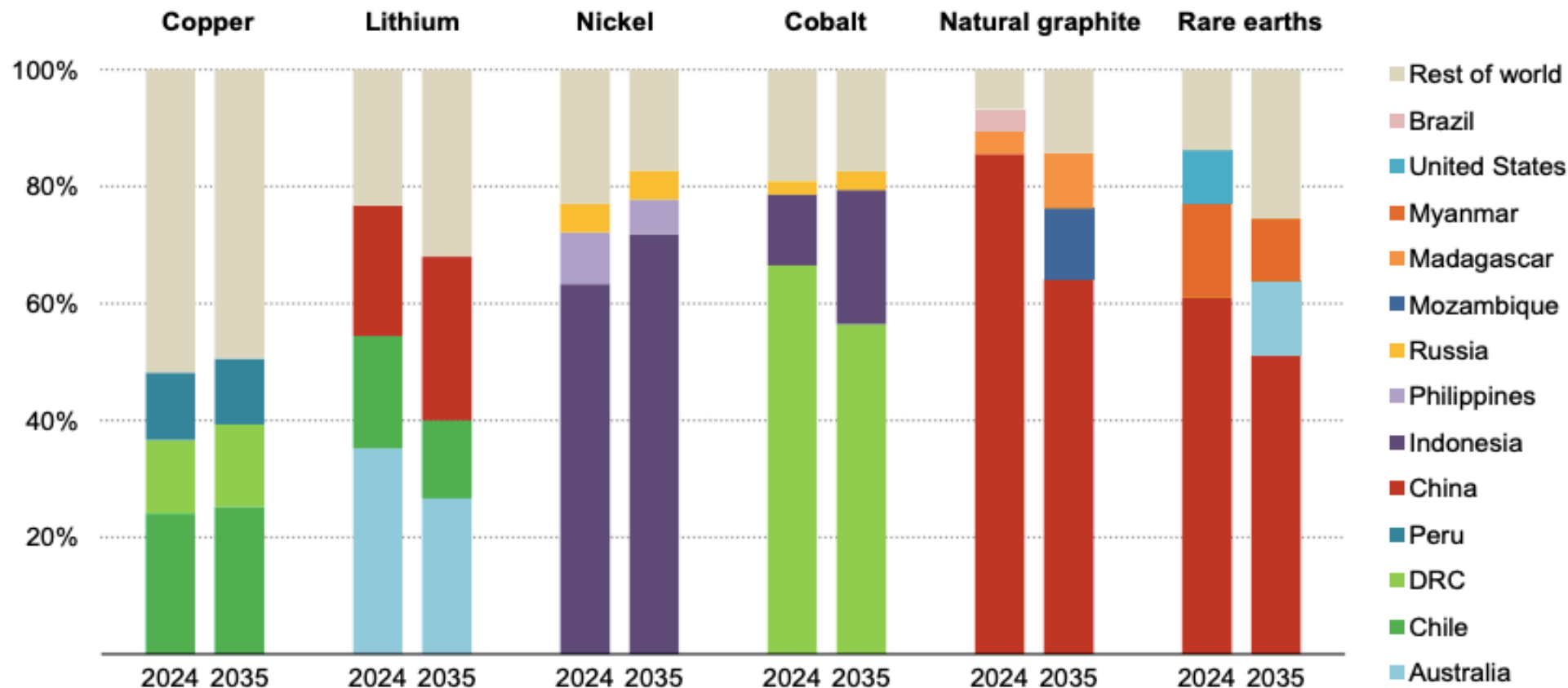
IEA. CC BY 4.0.

Notes: RoW = Rest of World; EV = electric vehicle; Cathodes and anodes refer to cathode and anode active materials. Flows are normalised to the battery (cell) manufacturing step, with cathode and anode active materials normalised such that their sum is scaled to the battery cell volume. Numbers below the charts refer to the total demand, not only the traded volume. The lighter-colour version of the flows going to battery manufacturing represents the anodes (anode active materials). Battery applications different from EVs and battery storage are excluded from the analysis. Electric vehicle and battery stockpiling are excluded from the analysis.

Sources: IEA analysis based on [EV Volumes](#), [Benchmark Mineral Intelligence](#), and [Bloomberg New Energy Finance](#).

Mining of critical minerals is set to become more concentrated for copper, nickel and cobalt while more diversified for lithium, graphite and rare earth elements

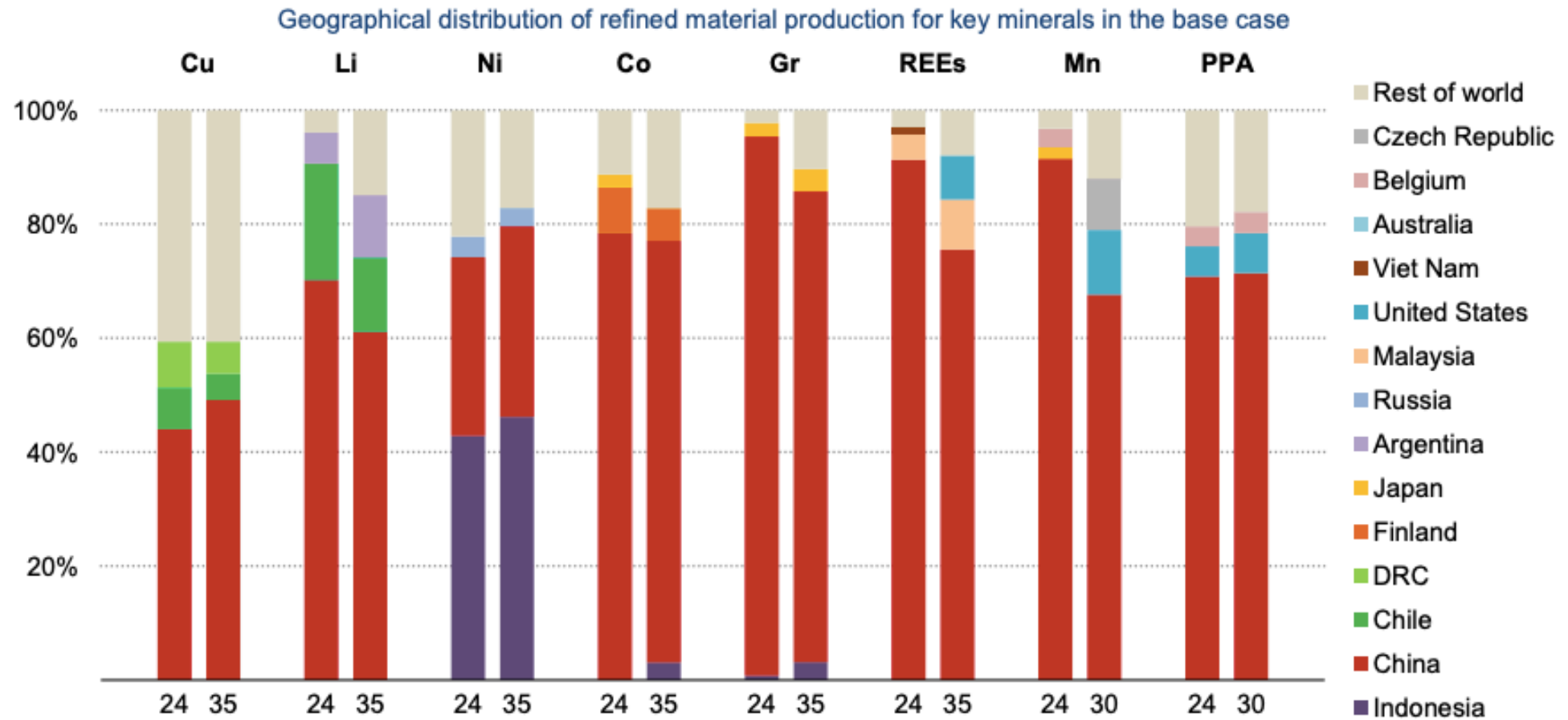
Geographical distribution of mined or raw material production for key energy minerals in the base case



IEA. CC BY 4.0.

Notes: DRC = Democratic Republic of the Congo. Graphite extraction is for natural flake graphite. The figures for rare earth elements are for magnet rare earth elements only. The figure depicts the value of the top three producing countries in a given year.

Refined material production is also set to remain highly concentrated in a few countries



IEA. CC BY 4.0.

Notes: Cu = copper; Li = lithium; Ni = nickel; Co = cobalt; Gr = graphite; REEs = rare earth elements; Mn = battery-grade manganese sulphate; PPA = battery-grade purified phosphoric acid; DRC = Democratic Republic of the Congo. The figures for graphite are based on battery-grade including spherical graphite and synthetic graphite. The figure depicts the value of the top three producing countries in a given year.

USA. MINERALS CONSIDERED BOTH CRITICAL (USGS) AND STRATEGIC (DOW)

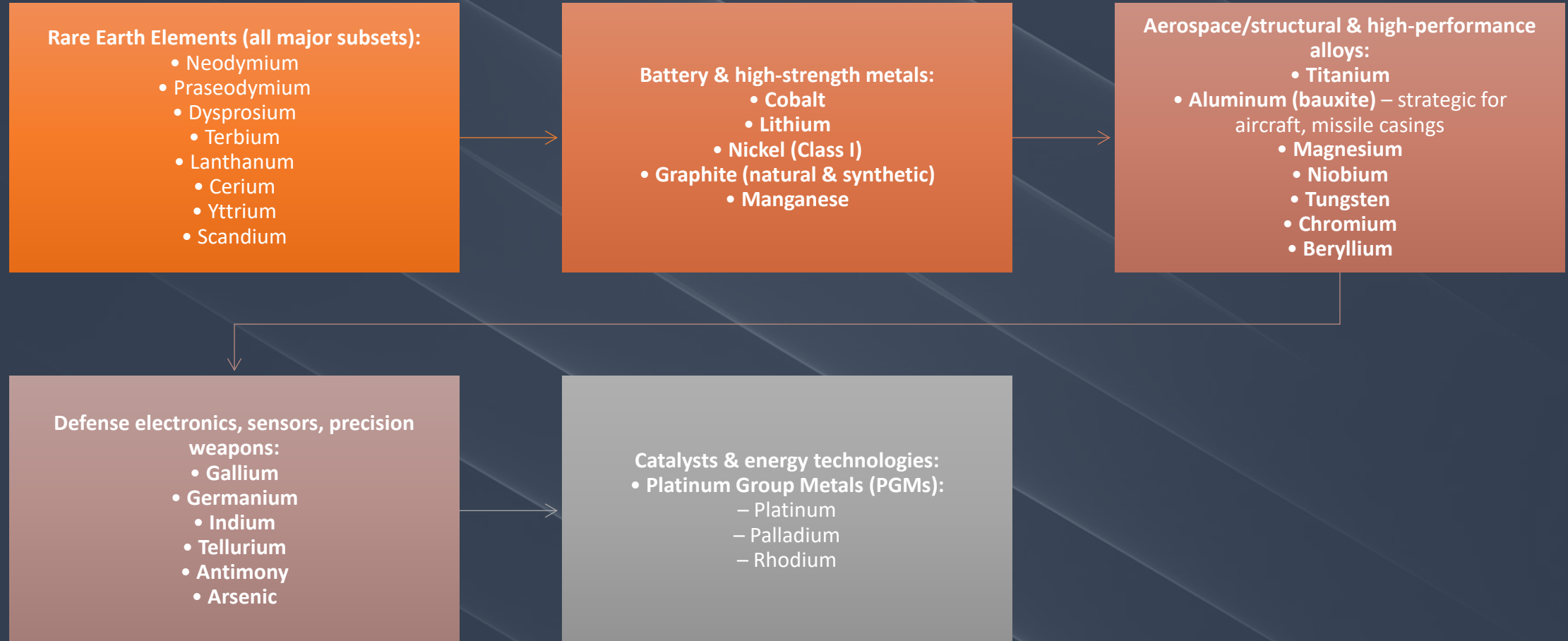


Figure 3.—Leading Import Sources* (2020–23) of Nonfuel Mineral Commodities for Which the United States Was Greater Than 50% Net Import Reliant



Amid increasing supply concentration, an expanding number of market restrictions have been introduced in recent years...

Export restrictions on energy-related minerals since 2023

	By	Market share	Type of control	
Material	Lithium	Zimbabwe	9%*	Imposed a ban on raw lithium ore exports in Dec 2022, followed by export licensing requirements for all unprocessed base minerals in Jan 2023
	Gallium	China	99%	Export licensing in Jul 2023, followed by an export ban to the US in Dec 2024
	Germanium	China	74%	Export licensing in Jul 2023, followed by an export ban to the US in Dec 2024
	Antimony	China	74%	Export licensing in Sep 2024, followed by an export ban to the US in Dec 2024
	Rare earths	China	92%	Export reporting requirements from Nov 2023 (effective until Oct 2025), followed by export licensing on seven medium and heavy rare earths in April 2025
	Graphite	China	98%	Export licensing in Dec 2023
	Cobalt	DRC	68%*	4-month halt to exports announced in Feb 2025
	Tungsten	China	44%	Export licensing in Feb 2025
	Bismuth	China	80%	Export licensing in Feb 2025
	Indium	China	70%	Export licensing in Feb 2025
	Tellurium	China	77%	Export licensing in Feb 2025
Technology	Molybdenum	China	81%	Export licensing in Feb 2025
	Nickel	Philippines	9%*	Proposed ban on raw mineral exports in Feb 2025
	Rare earths	China	92%	Export ban of rare earth extraction and separation technologies in Dec 2023
	LFP cathode	China	98%	Proposed technology export control in Jan 2025
Lithium refining	China	72%	Proposed technology export control in Jan 2025	

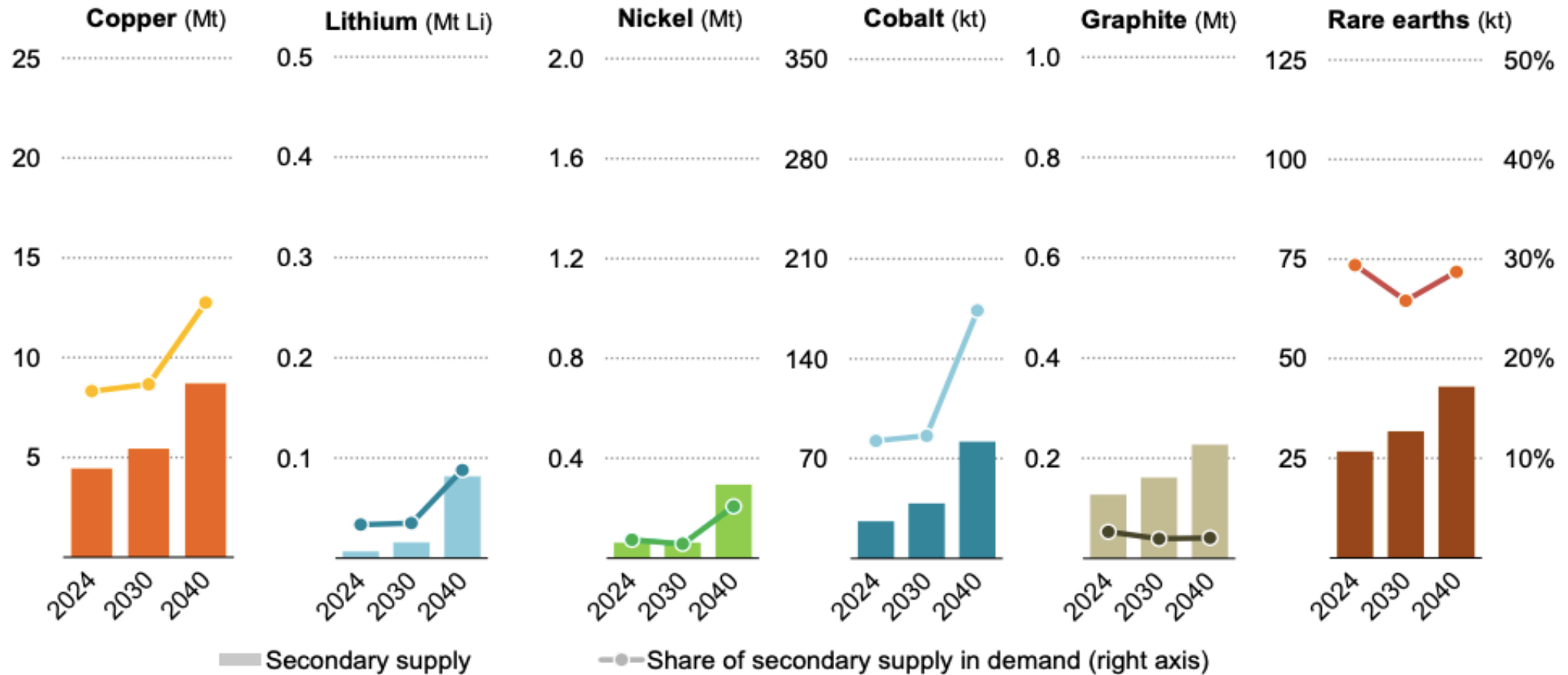
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* Mined output. Notes: LFP = lithium iron phosphate. Market shares are based on refined output in 2024.

Sources: IEA analysis based on USGS (2025), [Mineral Commodity Summaries 2025](#), and EC [Raw Materials Information System](#) (accessed April 2025).

Secondary supply increases rapidly post-2030 as a growing amount of end-of-life feedstock becomes available

Secondary supply volumes and share of total demand for key energy minerals in the STEPS



IEA. CC BY 4.0.

Notes: Includes recycled volumes from end-of-life equipment and manufacturing scrap. For copper, direct-use scrap is excluded.



MUCHAS
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