Navigating Global Shifts: The Economic and Geopolitical Forces Shaping Asia's Coal Markets

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Snapshot of IEEFA

Evidence-based

Our analyses are thoroughly researched, fact-based, and data driven

Independent

As a non-profit think tank, our work is free from political influence, corporate and sectoral interests.

Energy focused

Our mission is to accelerate the transition to a diverse, sustainable and profitable energy economy. We cover domestic and export energy markets.

Financial analysis

We focus on the financial issues associated with the energy transition, looking at market trends, financial risks and opportunities.

Global

We have teams in North America, Europe, Asia and Australia.

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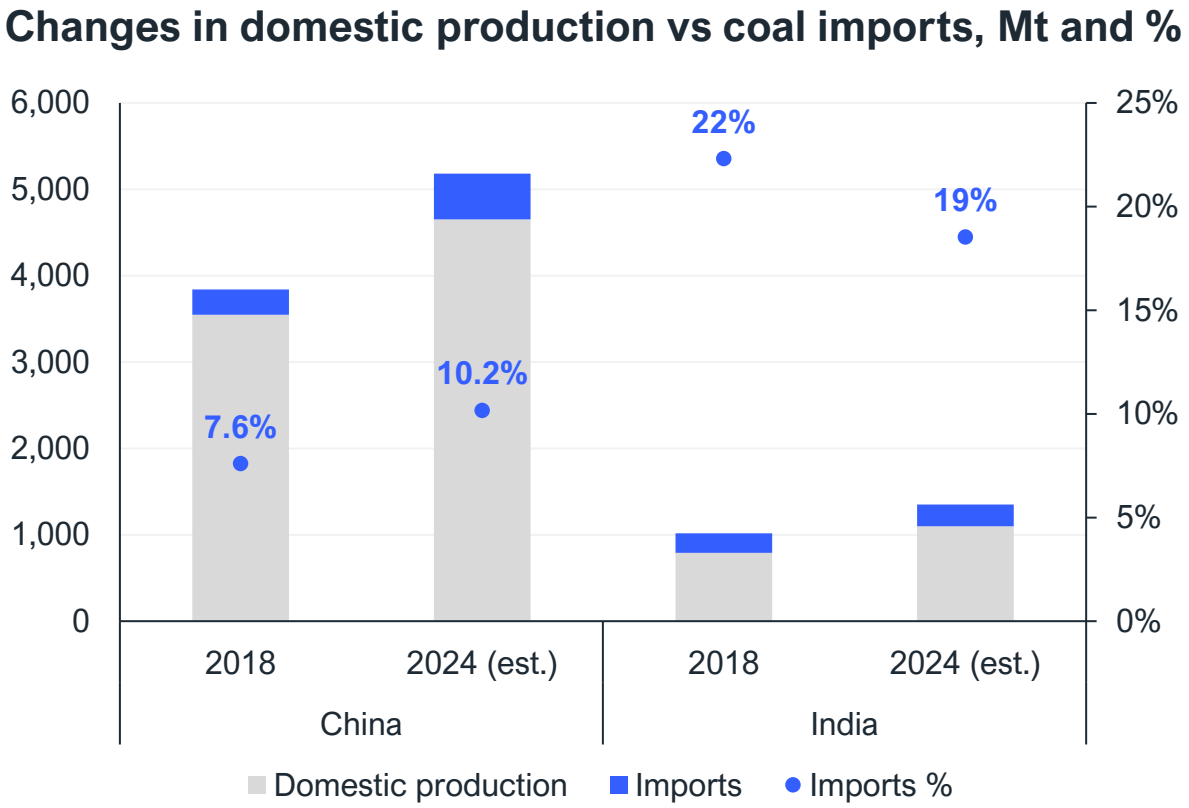
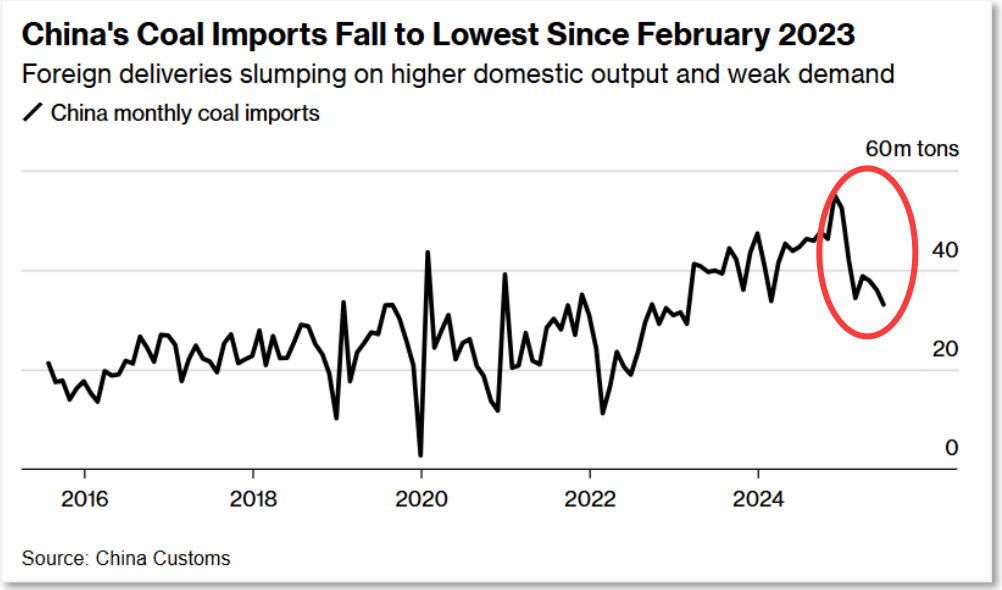
Geopolitical shifts

An increased focus towards domestic production

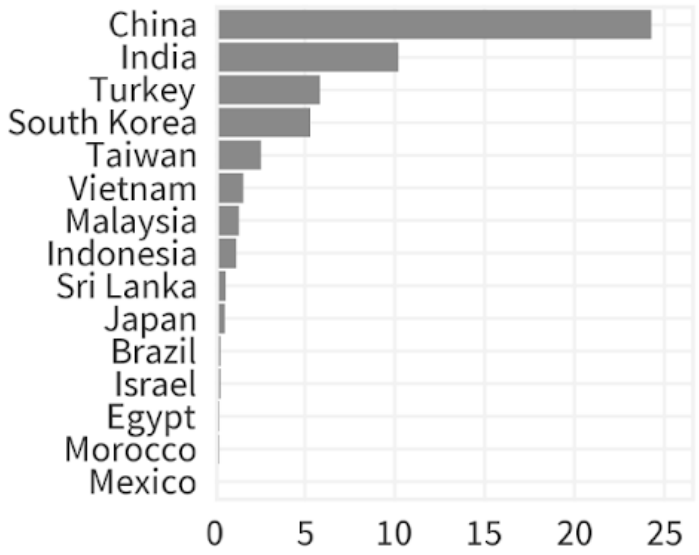




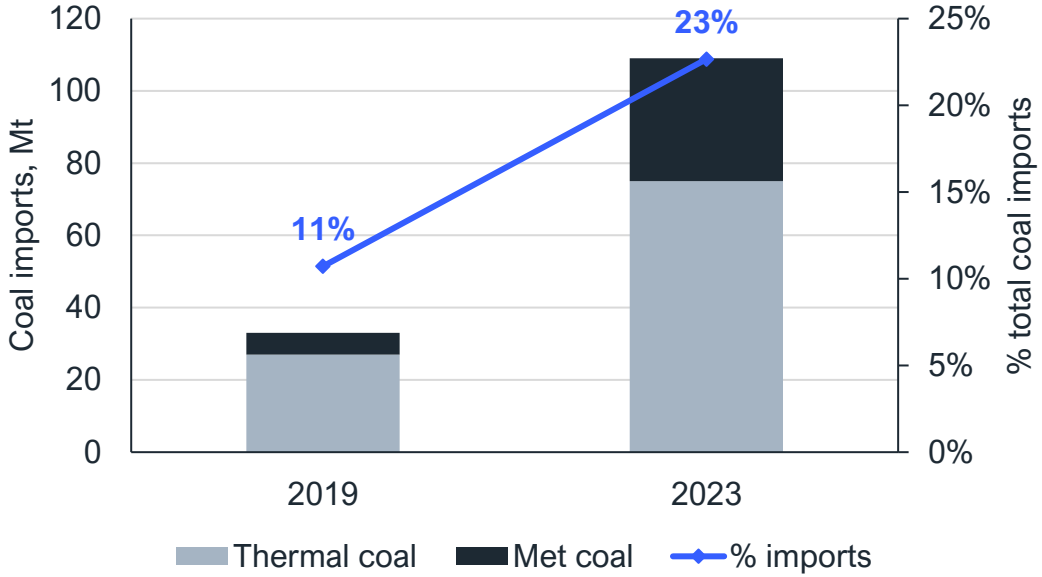
Source: International Energy Agency (IEA), Coal 2024 and Coal 2020; Economic Times, Energy, Coal imports fall 7.9% to 243.62 MT in FY25; forex savings of $7.93 billion recorded; Bloomberg, China Coal Imports Fall Further on Weak Demand, Domestic Output

A redirection of Russian coal towards Asia

Buyers of Russian coal after EU bans
Shipments arriving since EU oil bans until end of March 2025

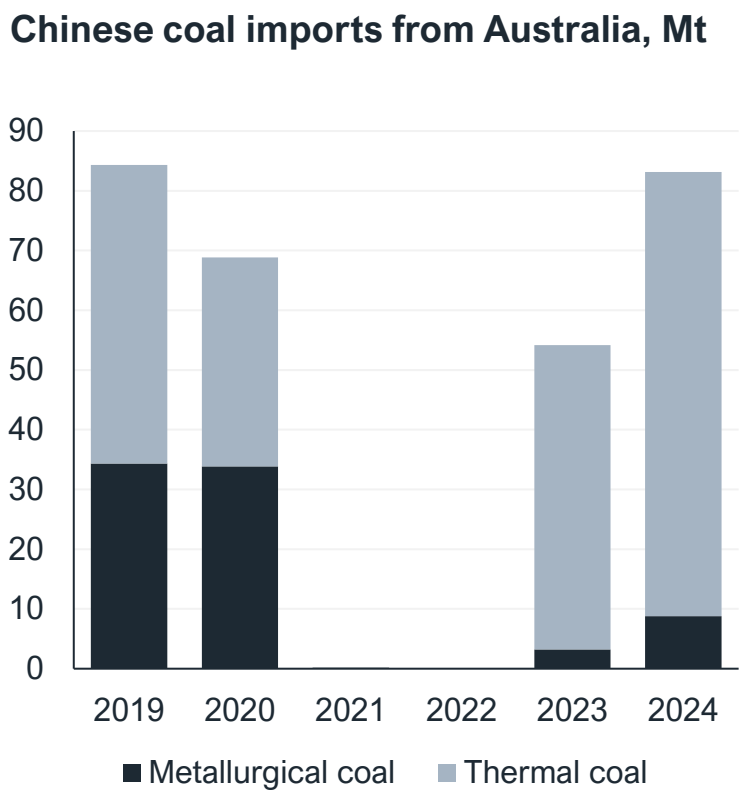


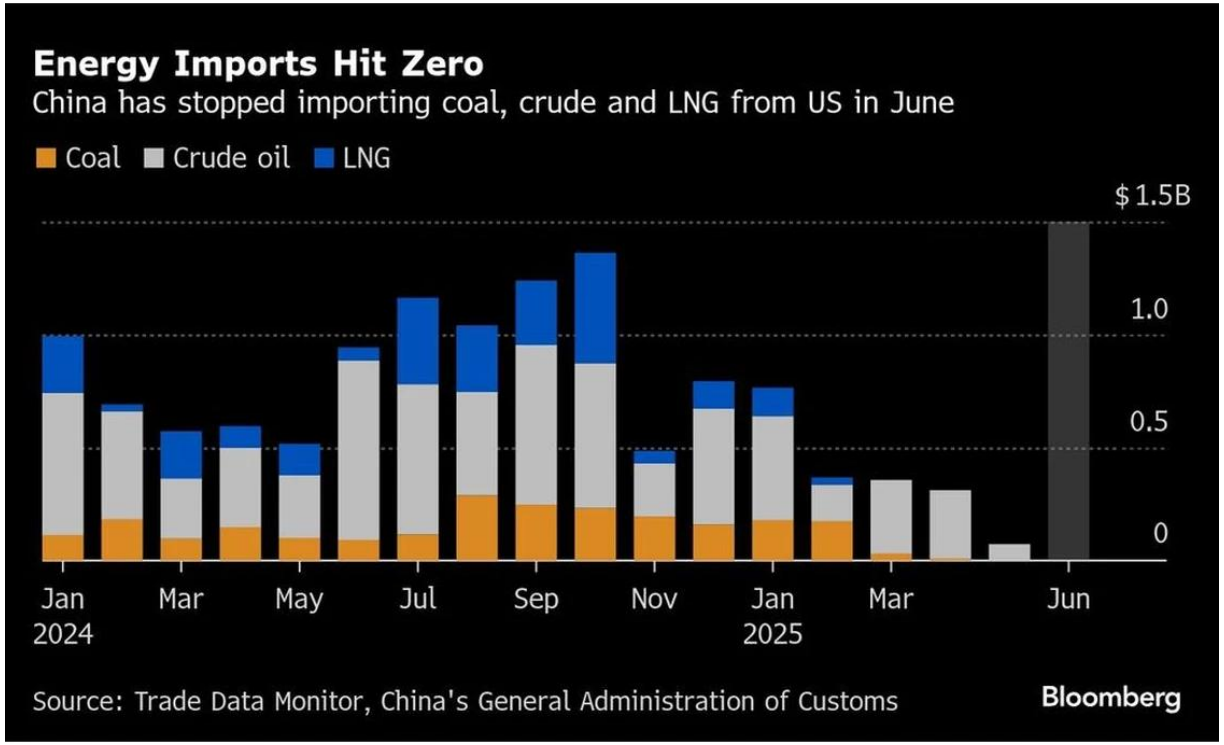
Chinese coal imports from Russia



Source: IEA, Coal 2024 and Coal 2020; CREA, March 2025 — Monthly analysis of Russian fossil fuel exports and sanctions

The influence of bilateral relationships





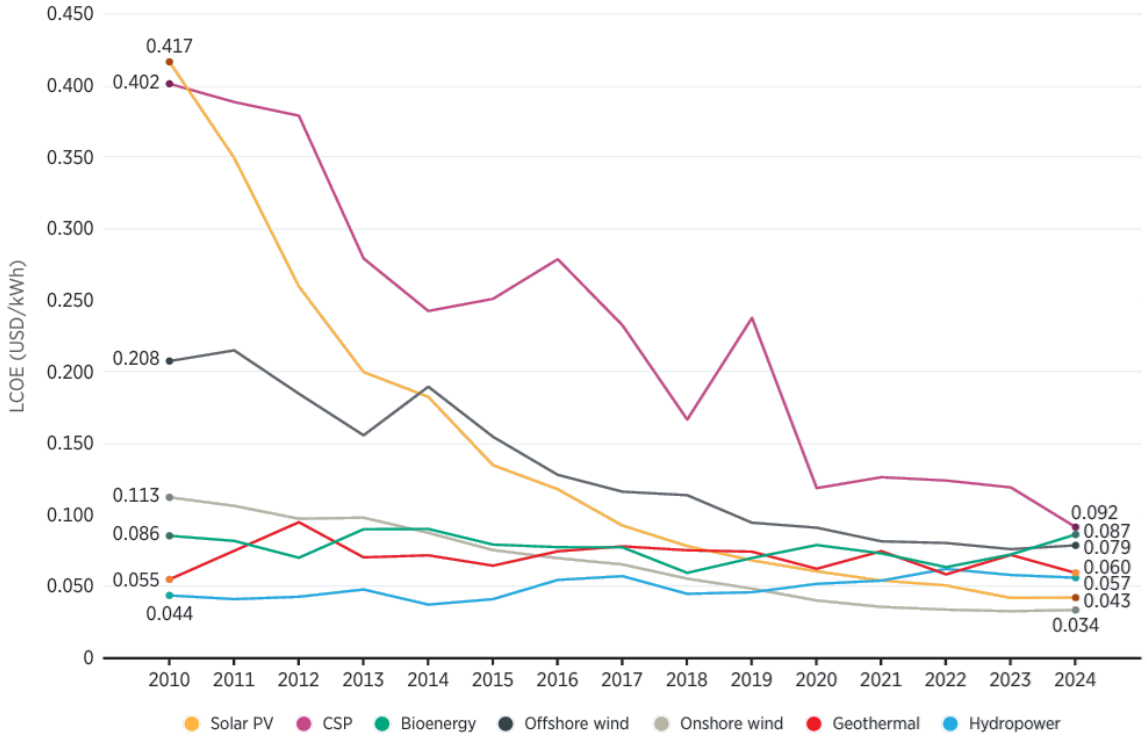
Source: Australian government, Resources and energy quarterly, June 2025; Financial post, China's Key US Energy Imports Near Zero Before Vital Trade Talks

Demand shifts

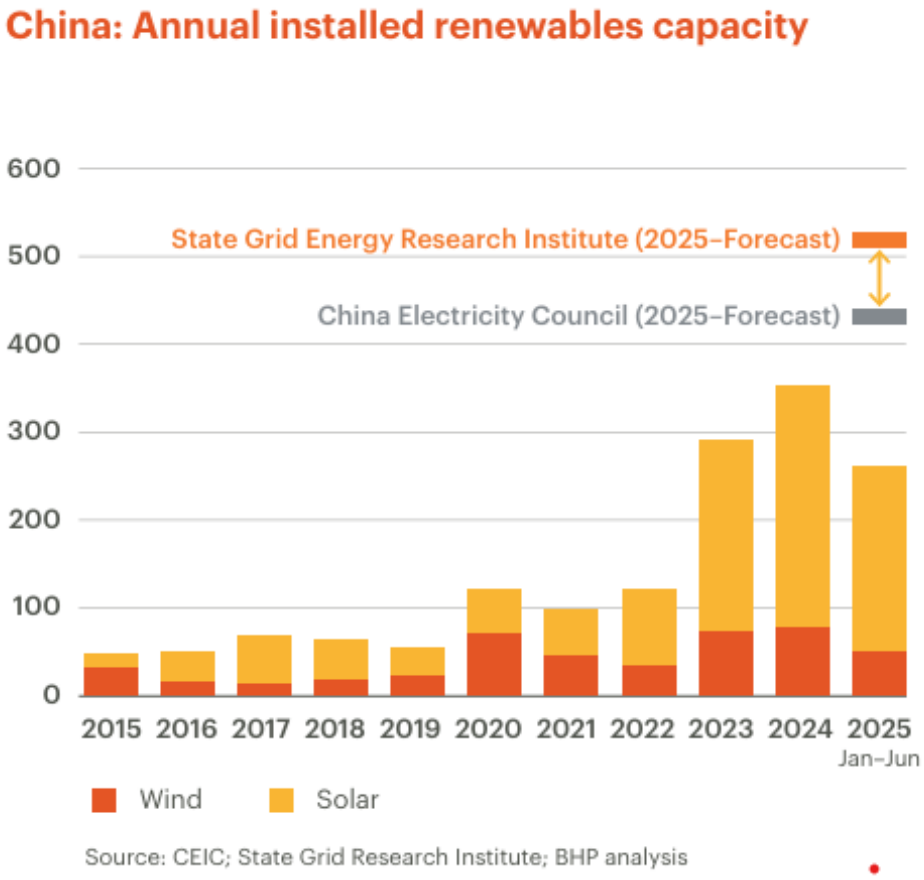
Thermal coal

Plummeting renewables costs

Figure S1 Renewable energy LCOE decline, 2010-2024



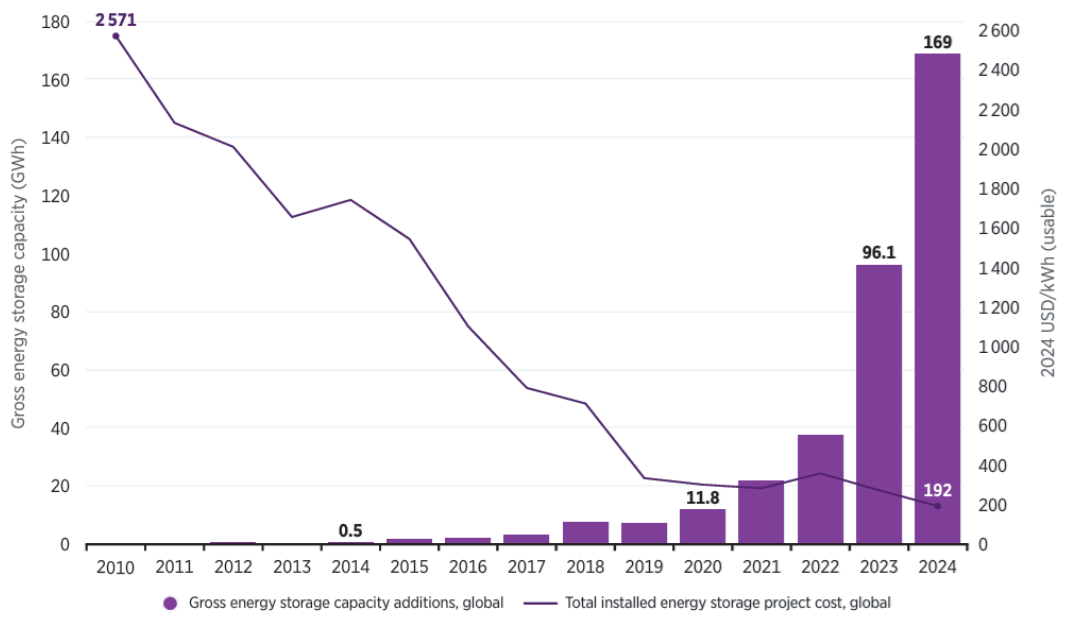
Notes: CSP = concentrated solar power; kWh = kilowatt hour; LCOE = levelised cost of electricity; PV = photovoltaic; USD = United States dollar.



Source: IRENA, Renewable power generation costs in 2024; BHP, BHP's Economic and Commodity Outlook August 2025

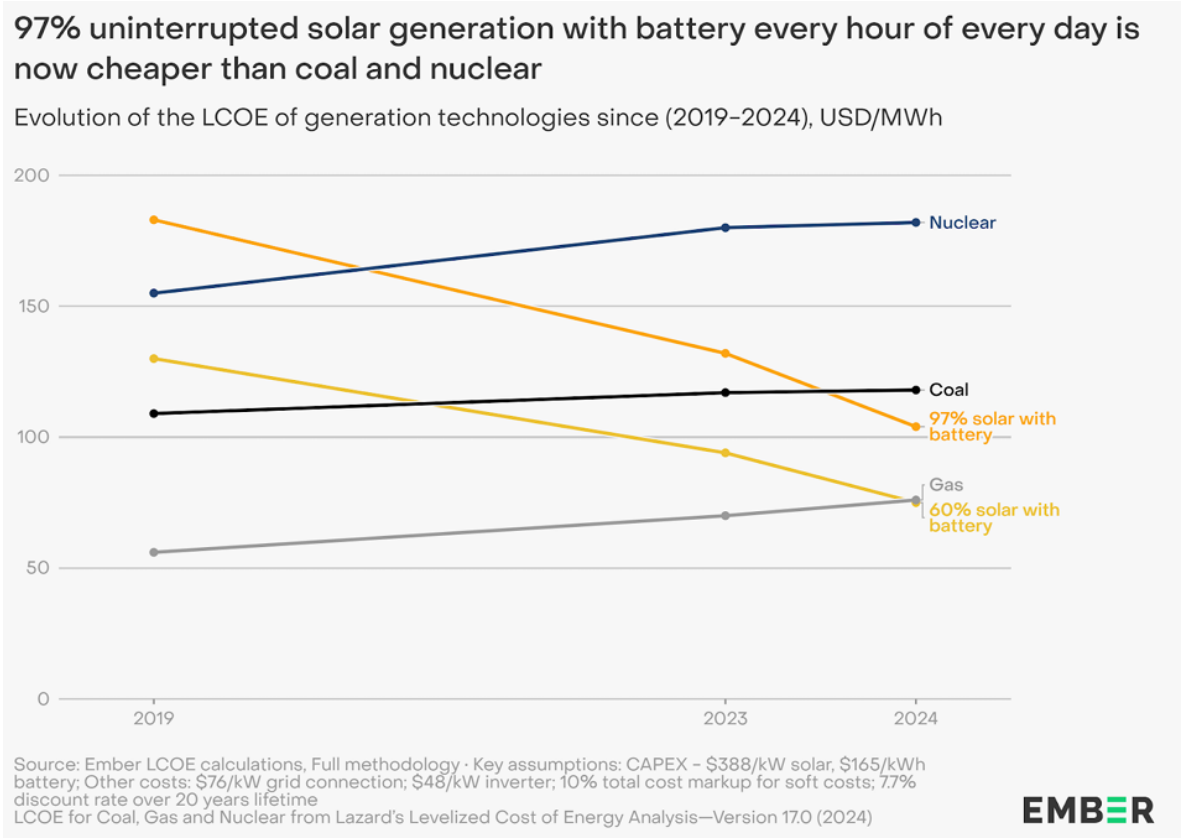
Plummeting battery costs

Figure 9.2 Global gross battery storage capacity additions by year and total installed electricity storage project costs per kWh, 2010–2024



Source: (BNEF, 2024; Schmidt and Staffell, 2023).

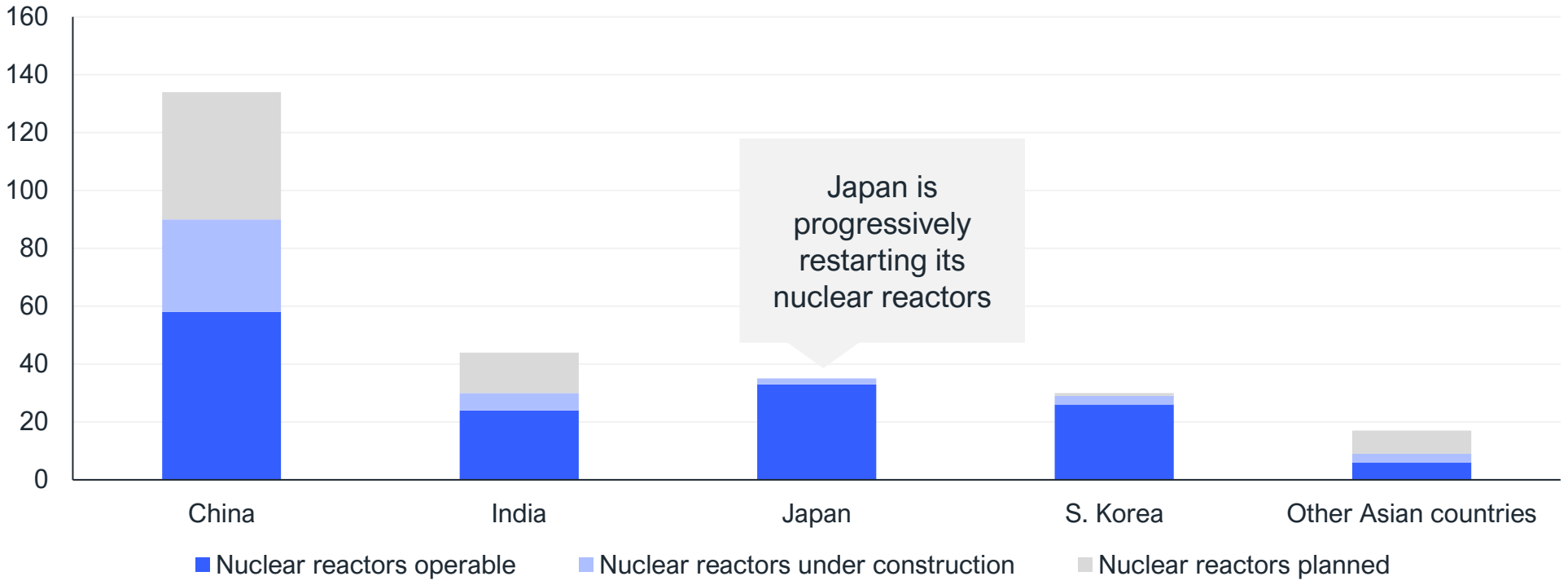
Notes: Cost data from 2010 to 2015 was calculated based on the capacity, price and experience curve regression data for electrical energy storage technologies model developed by Oliver Schmidt and Iain Staffell; GWh = gigawatt hour; kWh = kilowatt hour; USD = United States dollar.



Source: IRENA, Renewable power generation costs in 2024; Ember, Solar electricity every hour of every day is here and it changes everything

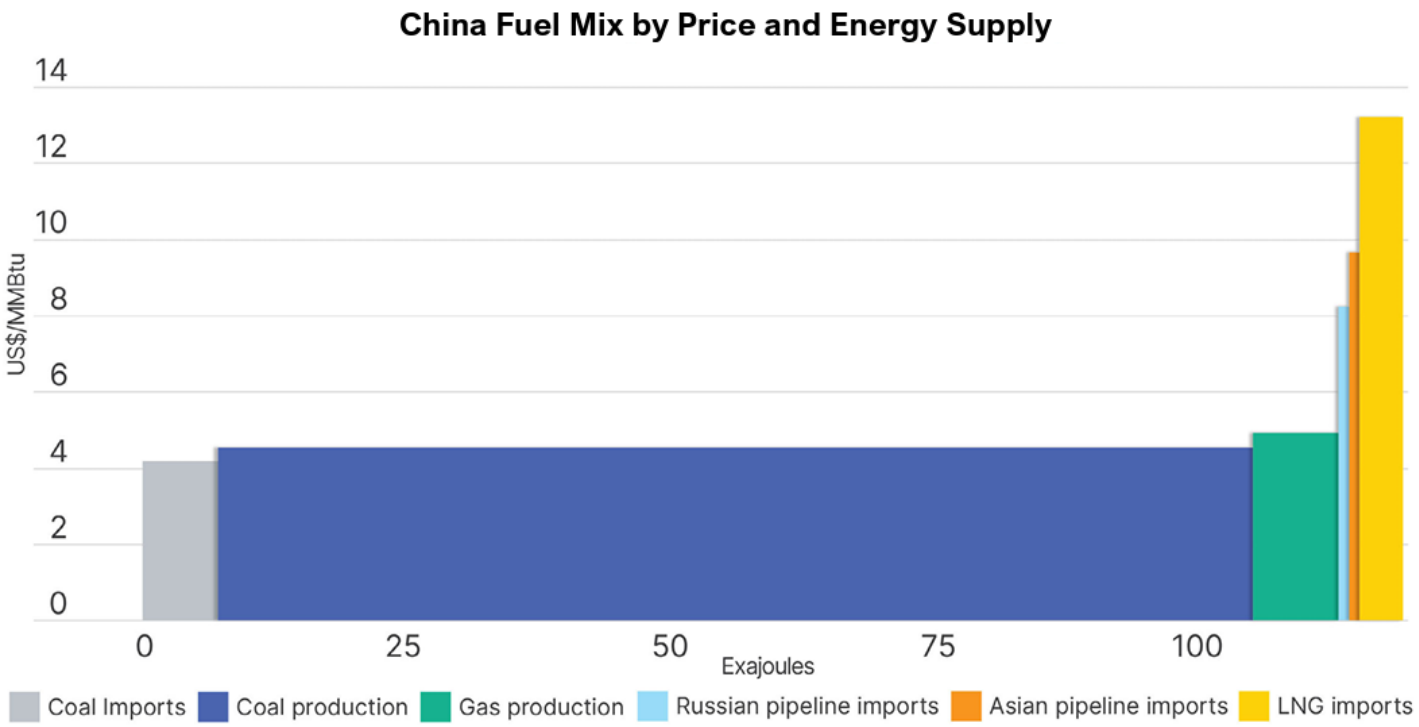
Increasing nuclear generation

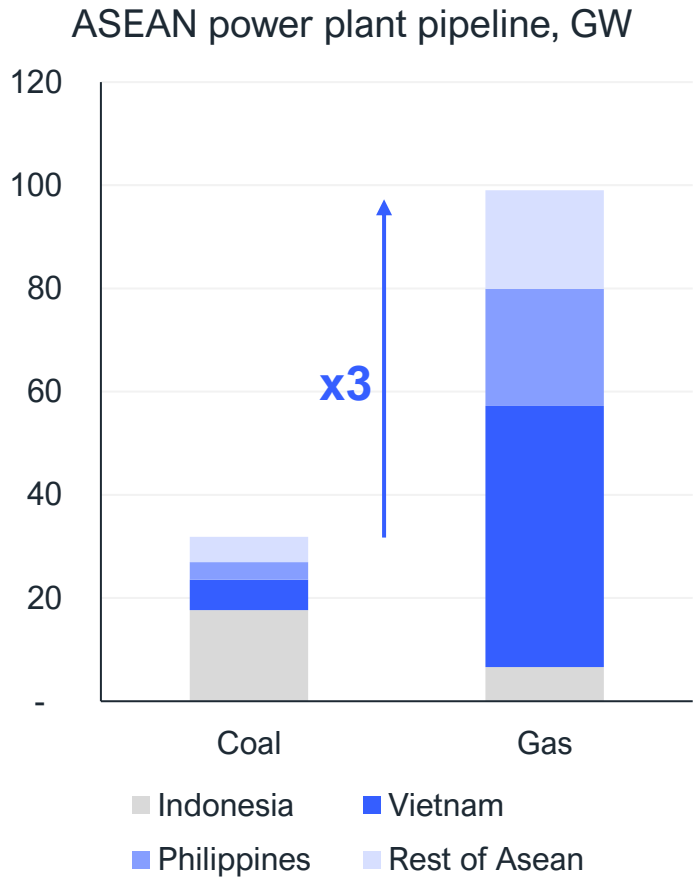
Nuclear power reactors operable, under construction and planned in Asia



Source: World Nuclear Association, Asia's Nuclear Energy Growth

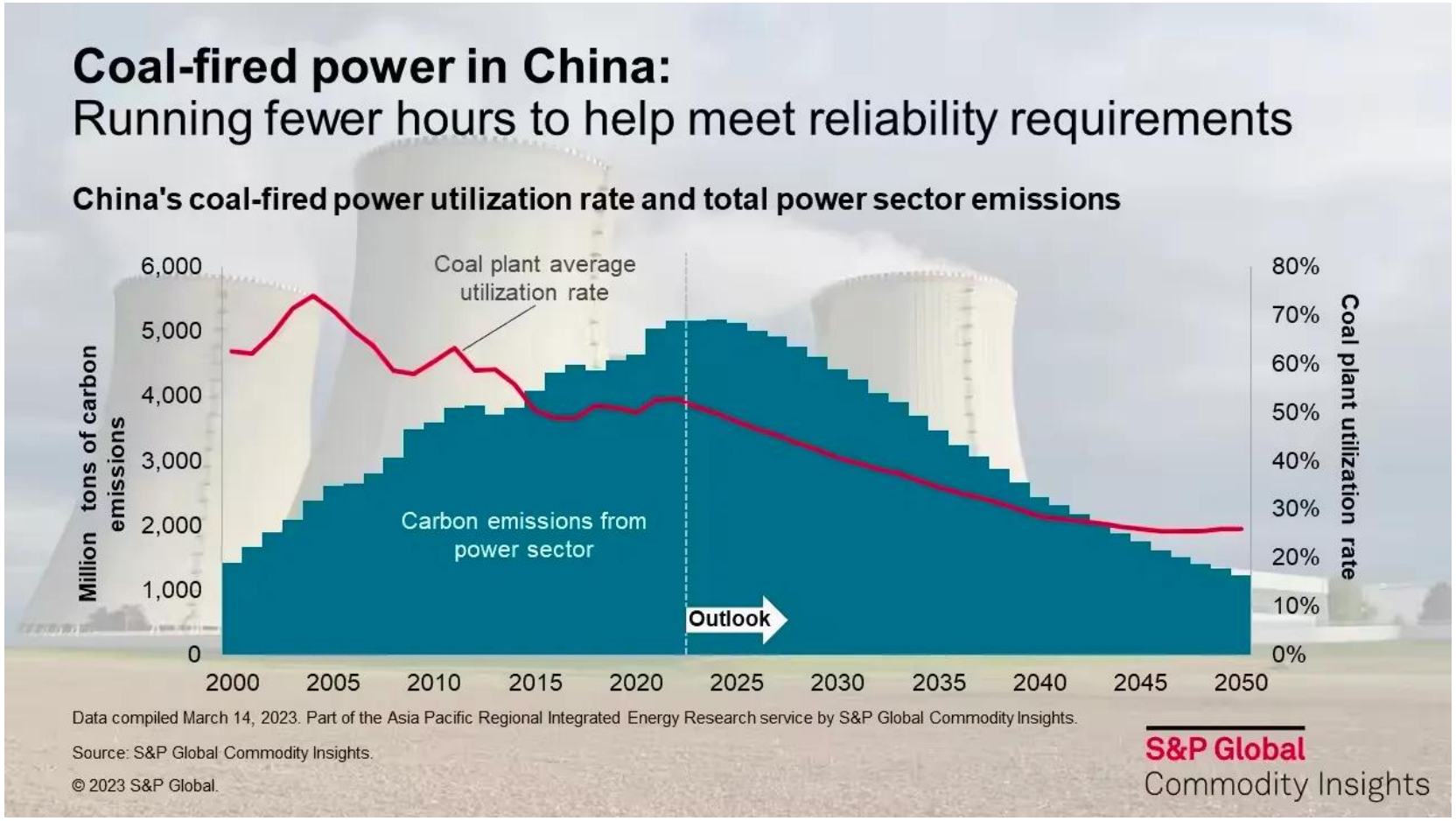
Will gas be a serious competitor?





Source: IEEFA, Understanding the competitive landscape for China's LNG market; Global Energy Monitor, Global Integrated Power Tracker data set.

Capacity ≠ Generation

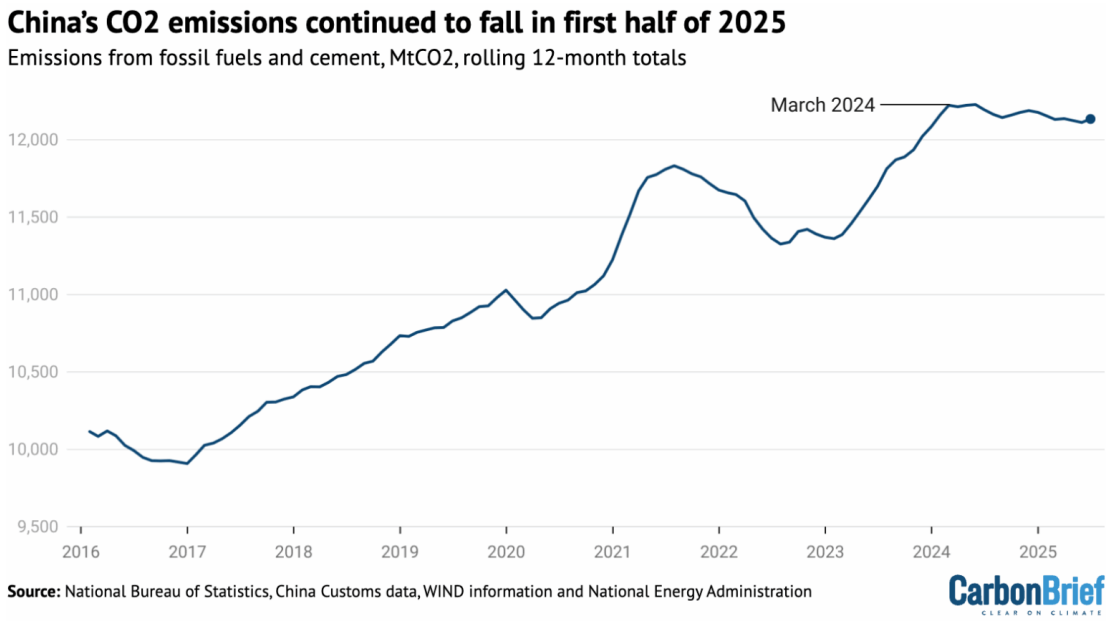


Source: S&P Global, China's record coal capacity approvals in 2022: Will carbon targets still be met?

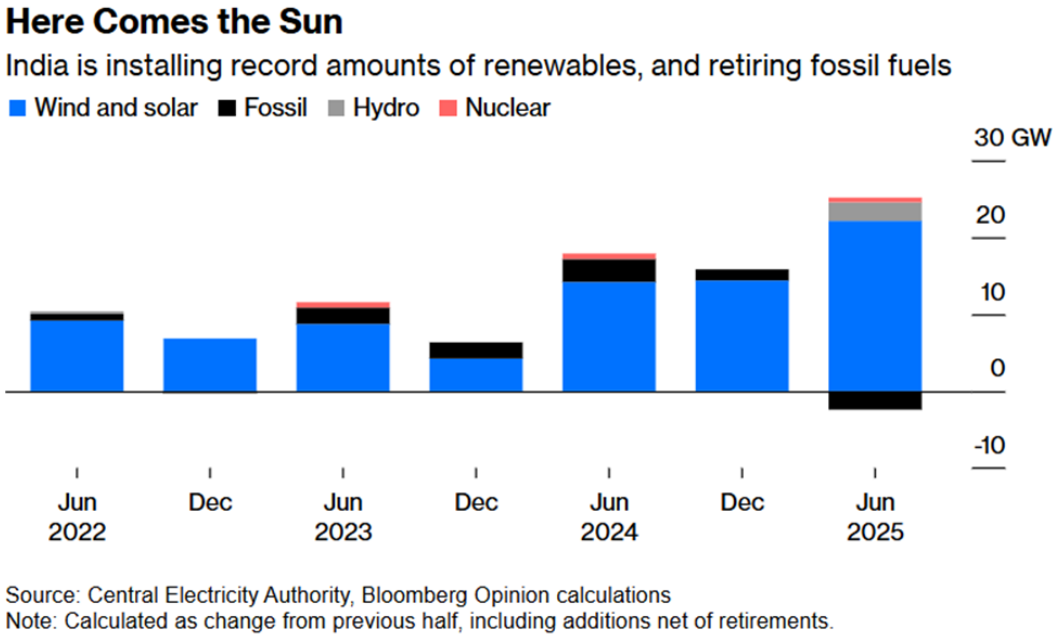
Reaching a tipping point

In the first half of 2025…

China's emissions fell



India had a net retirement of fossil fuels



Source: Central Electricity Authority, Bloomberg Opinion calculations
Note: Calculated as change from previous half, including additions net of retirements.

Source: Bloomberg, America Is Slipping Behind India's Clean Power Boom; Carbon Brief, Analysis: Record solar growth keeps China's CO_2 falling in first half of 2025

CCS unlikely to save coal-based generation

Carbon Capture and Storage (CCS) projects' poor report card

Project	Capacity (MtCO2 p.a.)	Performance
Natural Gas processing		
1986 Shute Creek	7	Lifetime under-performance of 36%
1996 Sleipner	0.9	Performing close to the capture capacity
2004 In Salah	1.1	Failed after 7 years of operation
2007 Snøhvit	0.7	Performing close to the capture capacity
2019 Gorgon	4	Lifetime under-performance of ~50%
Industrial sector		
2000 Great Plains	3	Lifetime under-performance of 20–30%
2013 Coffeyville	0.9	No public data was found on the lifetime performance.
2015 Quest	1.1	Performing close to the capture capacity
2016 Abu Dhabi	0.8	No public data was found on the lifetime performance.
2017 Illinois Industrial (IL-CCS)	1	Lifetime under-performance of 45–50%
Power sector		
2014 Kemper	3	Failed to be started
2014 Boundary Dam	1	Lifetime under-performance of ~50%
2017 Petra Nova	1.4	Suspended after 4 years of operation

Two reportedly successful projects in Norway:

- **Sleipner:** CO_2 migrated in mass to unknown layer
- **Snøhvit:** Had 18 months instead of 18 years capacity
- Demonstrate material ongoing risks

Gorgon:

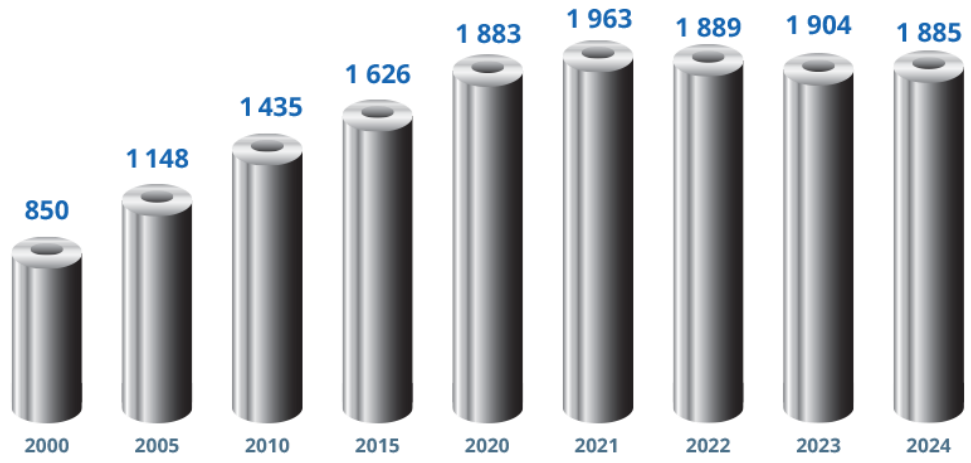
- Underperformed by ~45% its targets in last five years
- Injected <34% of CO_2 it captured since FY2021-22
- Cost >US$130/t$CO_2$ captured since it started

Source: IEEFA, Carbon Capture and Storage factsheet

Demand shifts
Metallurgical coal

Declining steel demand

Crude steel production 2000-2024, Mt



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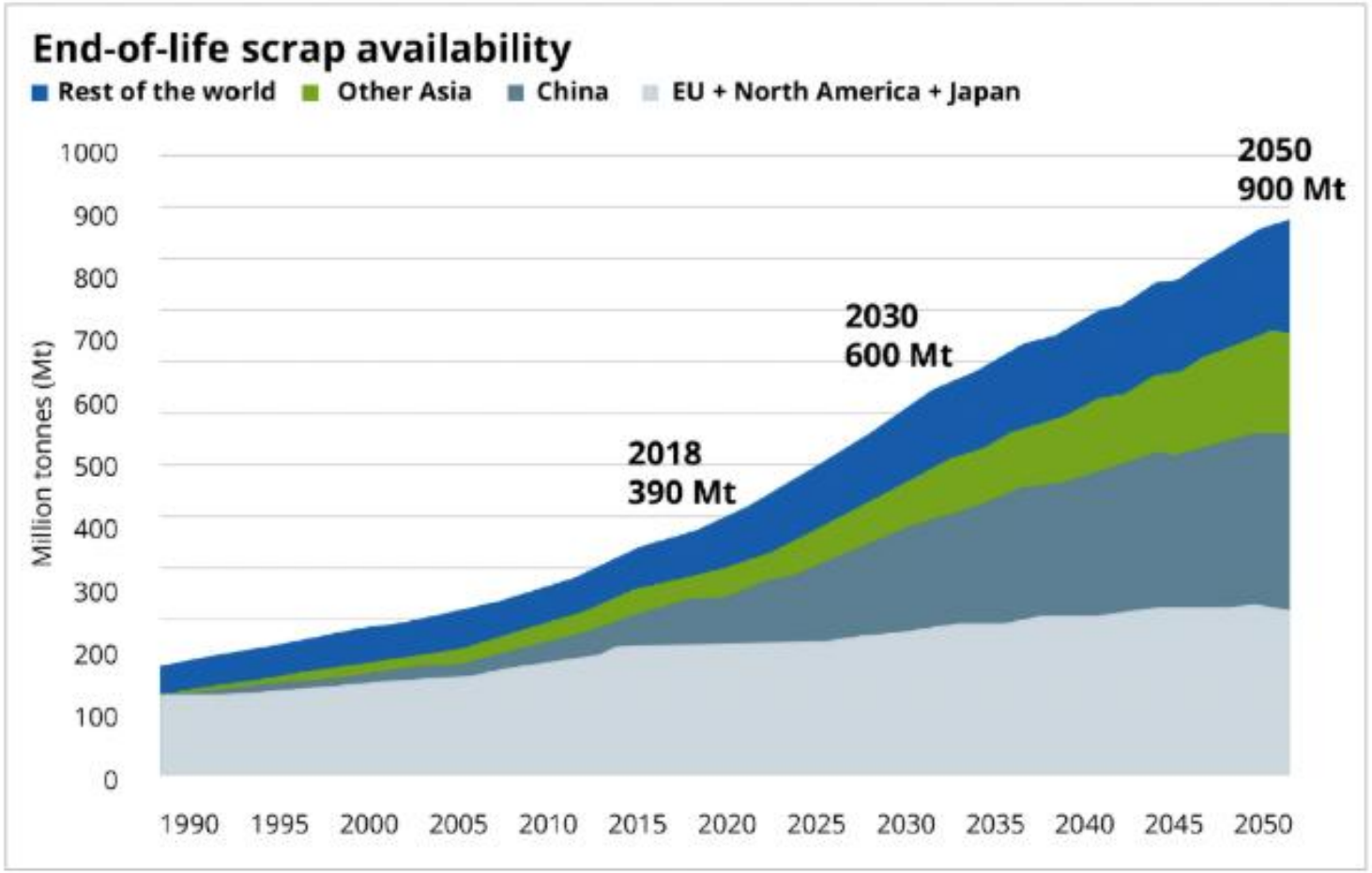
China steel demand slump an 'ominous' sign for ASX miners

Business Standard

Tariff shocks, China exports challenge Indian steel: Sajjan Jindal

Source: World Steel Association, World Steel in Figures 2025; Australian Financial Review, China steel demand slump an 'ominous' sign for ASX miners; Business Standard, Tariff shocks, China exports challenge Indian steel: Sajjan Jindal

Increase in recycling



Share of scrap in inputs
(China)

10%
today

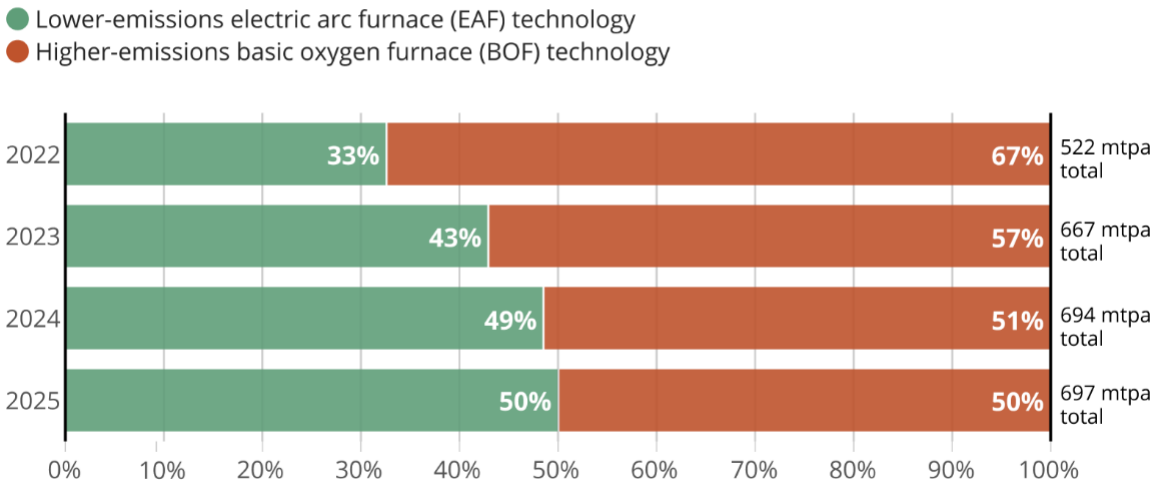
20%
By 2030

Source: World Steel Association; IEA

Shift away from coal-based production

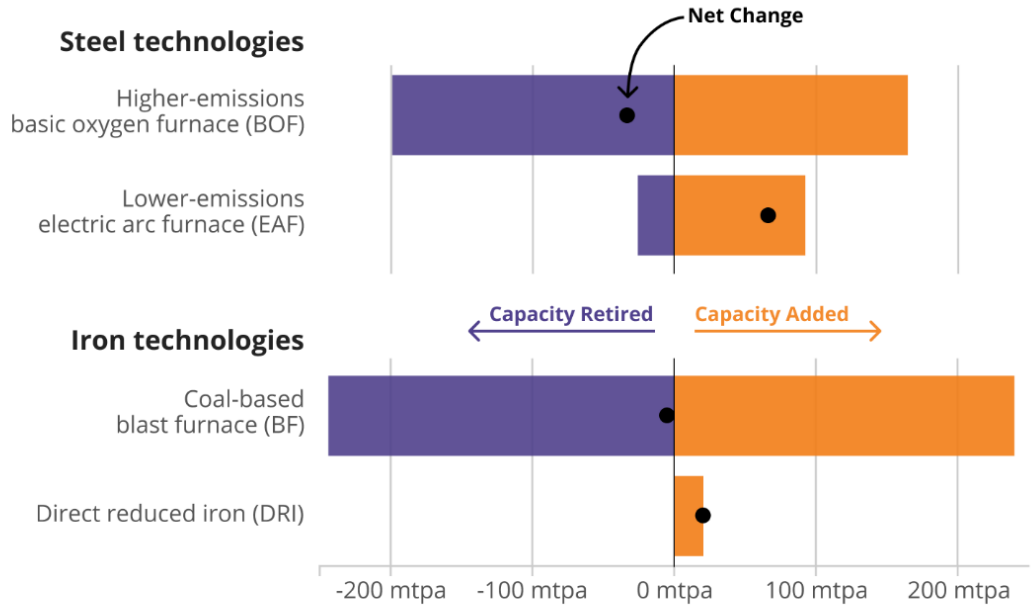
Half the total steelmaking capacity currently in development uses EAF technology, up from one-third in 2022

Proportion of steelmaking capacity in development globally, by year and technology type



Source: Global Iron and Steel Tracker, Global Energy Monitor.
Note: Each year's proportion is calculated from the corresponding final iron and steel dataset from GEM.

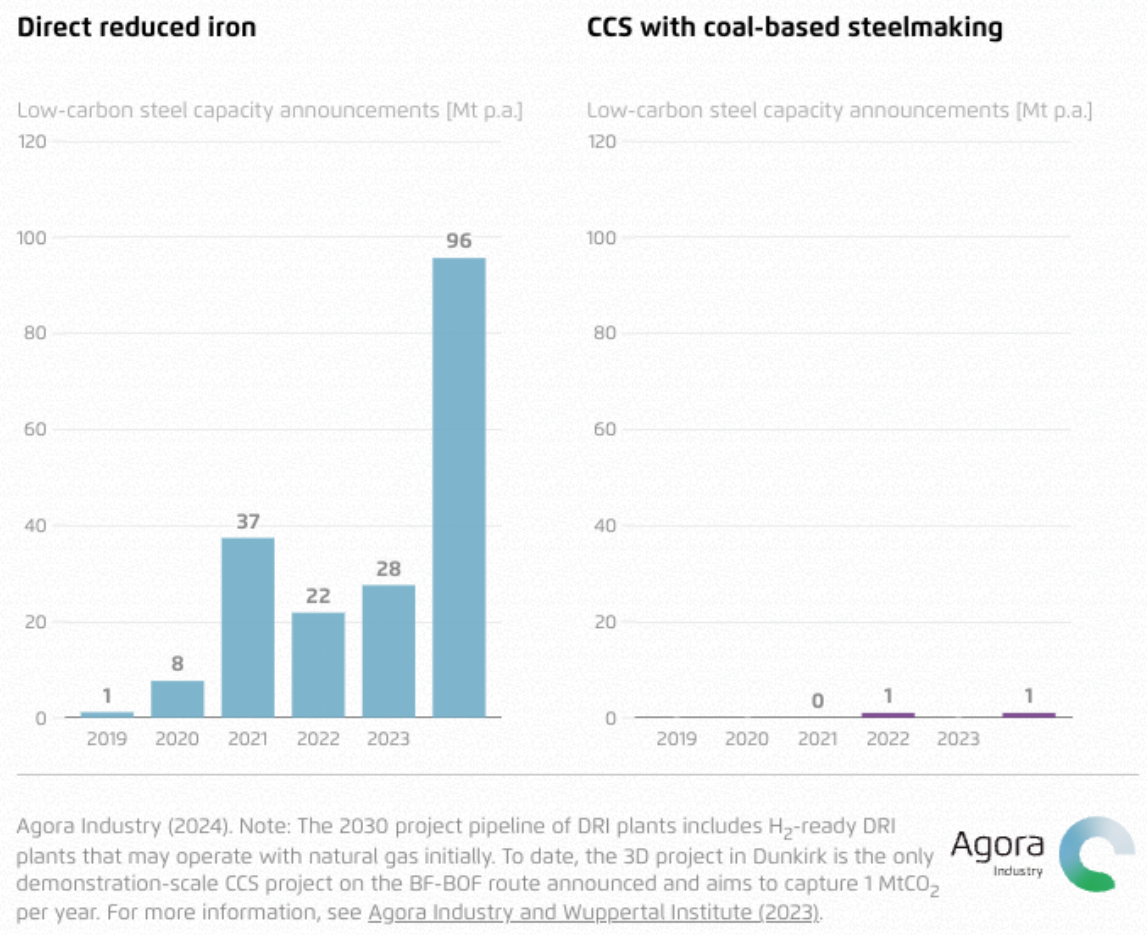
Changes in operating capacity between 2020-25 by technology type, in million tonnes per year (mtpa)



Source: Global Iron and Steel tracker, Global Energy Monitor

Source: Global Energy Monitor, Pedal to the Metal 2025

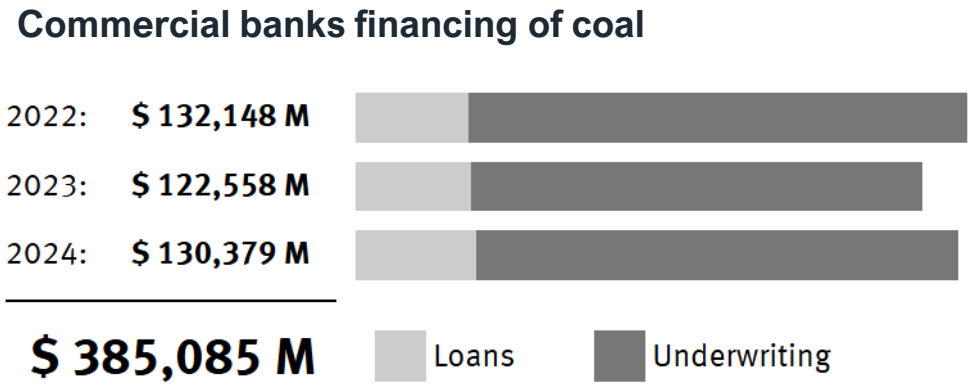
CCS unlikely to save coal-based steel production



Source: Agora Industry

Financing shifts

What do the NZBA exits mean?



46%

of major financial institutions have adopted a coal policy.

Source: Urgewald, Still banking on coal; Reclaim Finance, Coal policy tracker

Systemic increases in financing costs

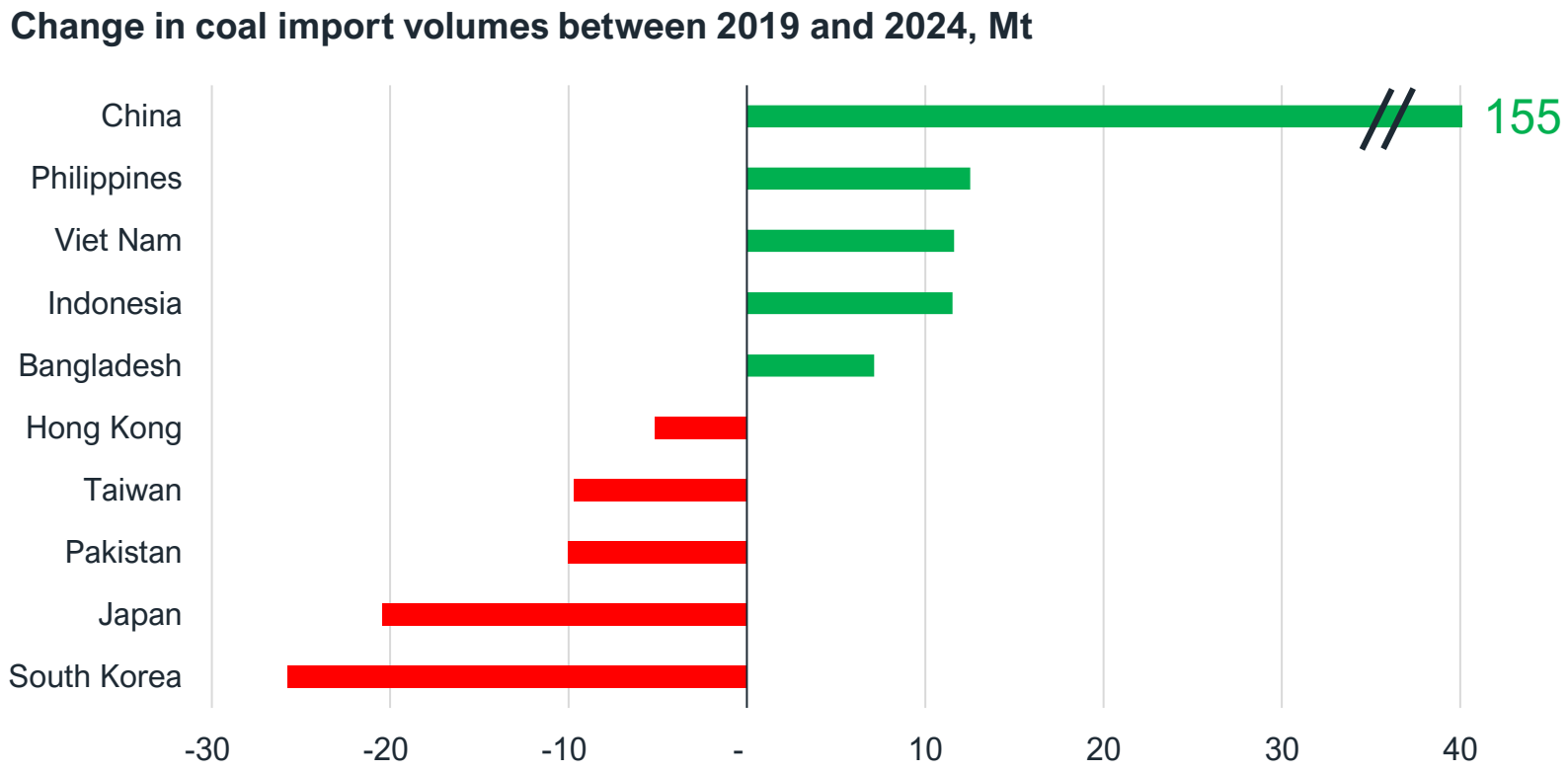
“What we found in this case is that banks divesting from coal directly leads to real impact—more than anyone thought”

Boris Vallee, Harvard Business School

Source: Harvard Business School, What Happens When Banks Ditch Coal: The Impact Is 'More Than Anyone Thought'; Mining Weekly, Private credit dominates Whitehaven Coal's $1.1bn loan; The Globe and Mail, Coal miners forced to save for a rainy day by insurance snub

Supply shifts

Increasingly price-sensitive markets



Source: UNComtrade Data; IEEFA

Indonesia at a crossroad

“If national production is not controlled, it must be admitted that Indonesia is actually creating a condition of coal oversupply in the global market”

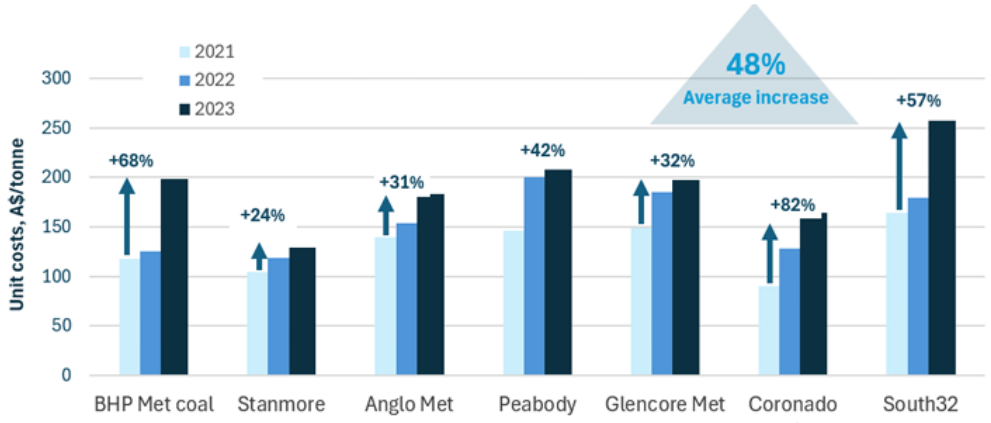
Singgih Widagdo,
Chairman of the Indonesia
Mining & Energy Forum

Source: Kompas, Anticipating Oversupply of Coal in the Global Market; IEEFA, Indonesia's coal companies: Some diversify, others expand capacity

Increasing cost of production in Australia

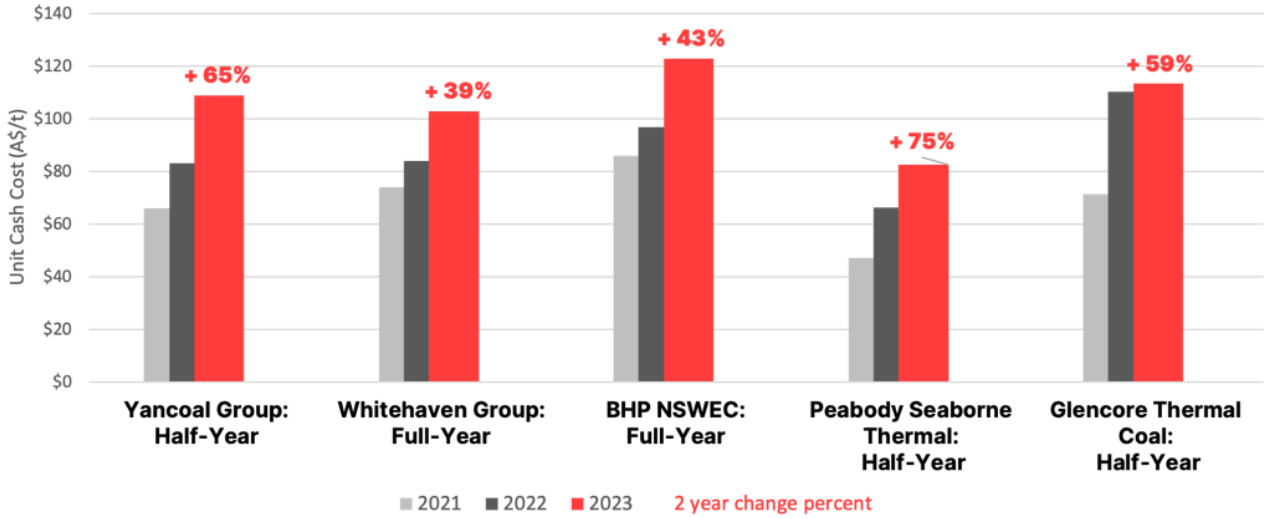
Unit costs reported by key metallurgical and thermal coal producers in Australia, 2021 to 2023

Metallurgical coal producers



Notes: 1. Normalised to AUD/tonne. Peabody and Glencore unit costs include royalties.
2.Comparison shows reported unit costs in2021, 2022 and 2023 calendar years by company, with the exception of BHP and South32 which shows a comparison of half-year results Jul-Dec 2021, Jul-Dec 2022 and Jul-Dec 2023.
Sources: December 2023 company financial results; IEEFA

Thermal coal producers



Source: IEEFA, Submission: Baralaba South Project – Environmental Impact Statement; Cost inflation underlines thermal coal miners' fragile profits and financing risks

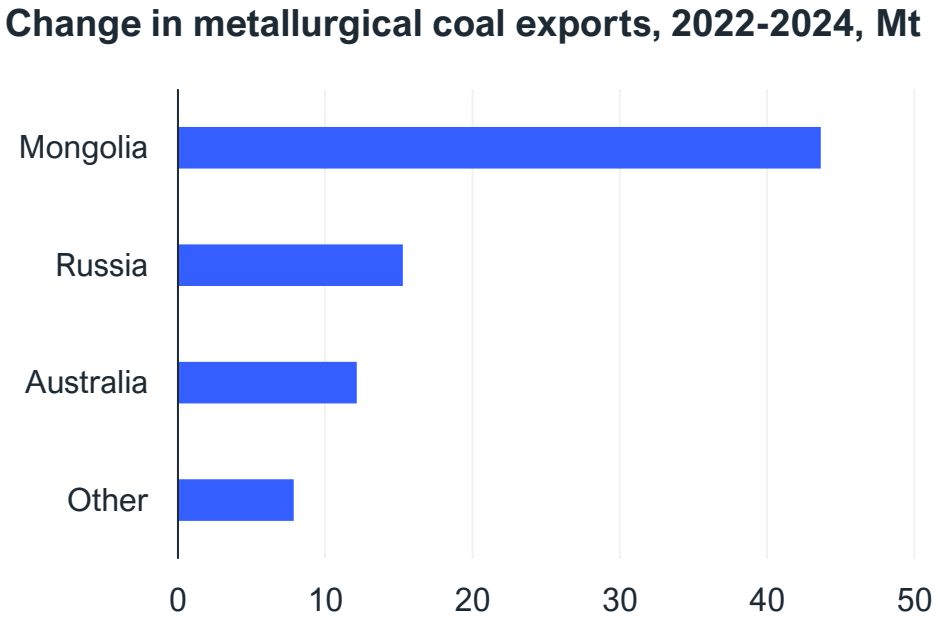
Diversifying with supply closer to home

Bloomberg

Mongolia Aims to Lift Chinese Coal Sales to 100 Million Tons

Việt Nam News

An agreement on coal trading with Laos to be developed



Source: Bloomberg; Vietnam News; IEA, Changes in metallurgical coal exports, 2022-2024

Conclusion

- Downside risks dominate demand outlook
- Positive outlook for domestic and local supply
- Increasing challenges for seaborne trade

“Declining industries can sometimes be extraordinarily profitable for the well-positioned players […] Companies that can view an industry’s decline as an opportunity rather than just a problem, and make objective decisions, can reap handsome rewards”

K Harrigan, Columbia Business School
M Porter, Harvard Business School

Source: Harvard Business Review, End-Game Strategies for Declining Industries

Contact

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