

The background of the slide is a satellite view of the Earth, showing the continents of Asia and Australia. Overlaid on this is a complex network of glowing orange and yellow lines that connect various points across the globe, resembling a global communication or trade network. The lines are most dense in the Asian region.

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

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**Institute for Energy Economics  
and Financial Analysis**

[ieefa.org](http://ieefa.org)

CoalTrans Asia | September 2025

# 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.



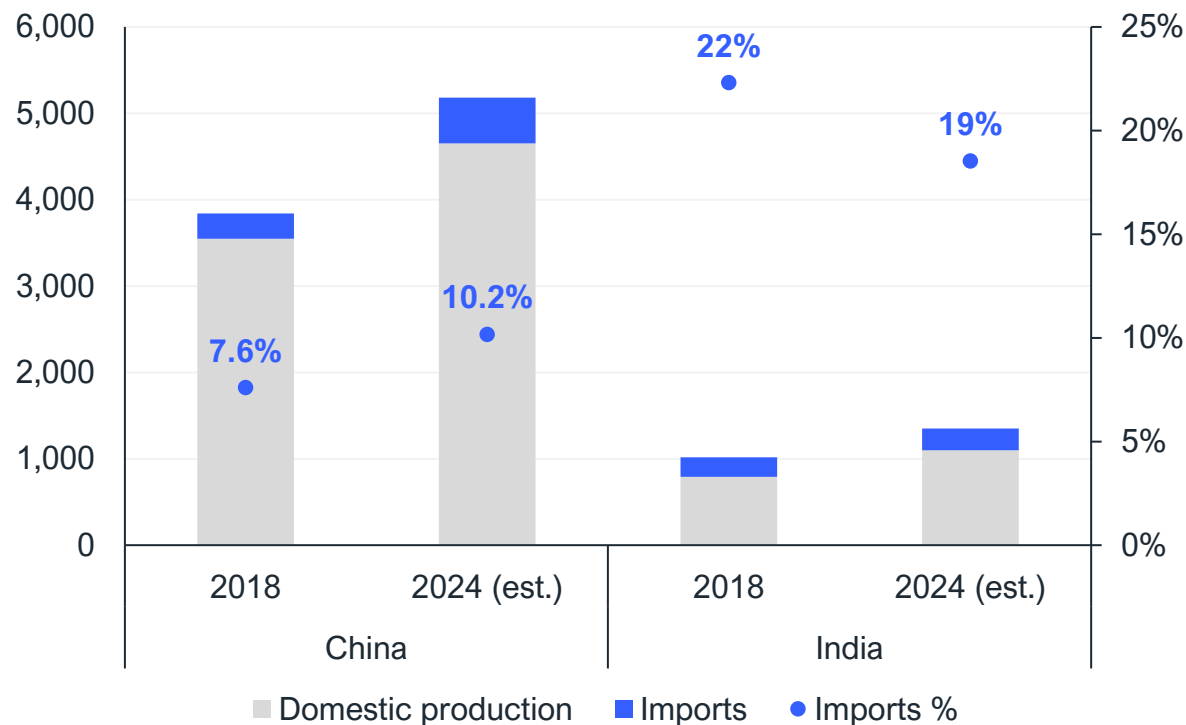
# Contents

1. Geopolitical shifts
2. Demand shifts
3. Financing shifts
4. Supply shifts

# Geopolitical shifts

# An increased focus towards domestic production

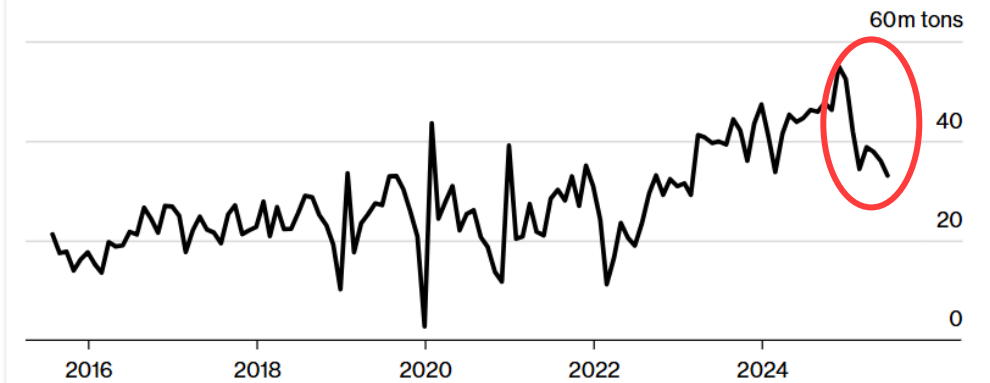
Changes in domestic production vs coal imports, Mt and %



## China's Coal Imports Fall to Lowest Since February 2023

Foreign deliveries slumping on higher domestic output and weak demand

✓ China monthly coal imports



Source: China Customs

**ET Energyworld.com**  
From The Economic Times

**India**

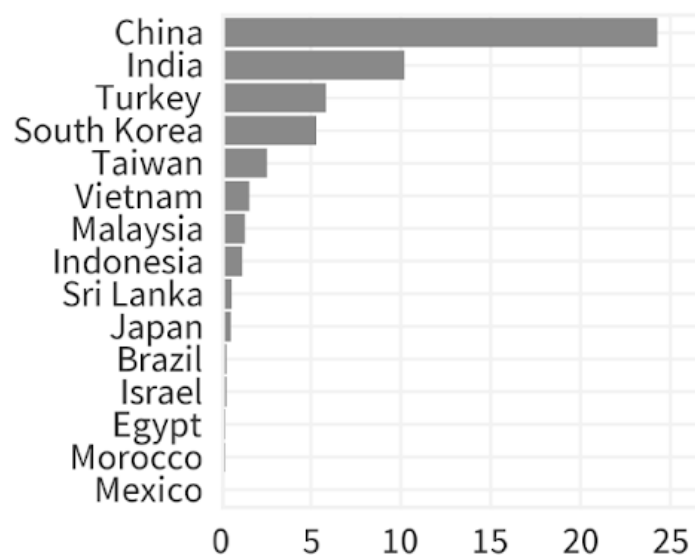
**Coal imports fall 7.9% to 243.62 MT in FY25; forex savings of \$7.93 billion recorded**

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](#)

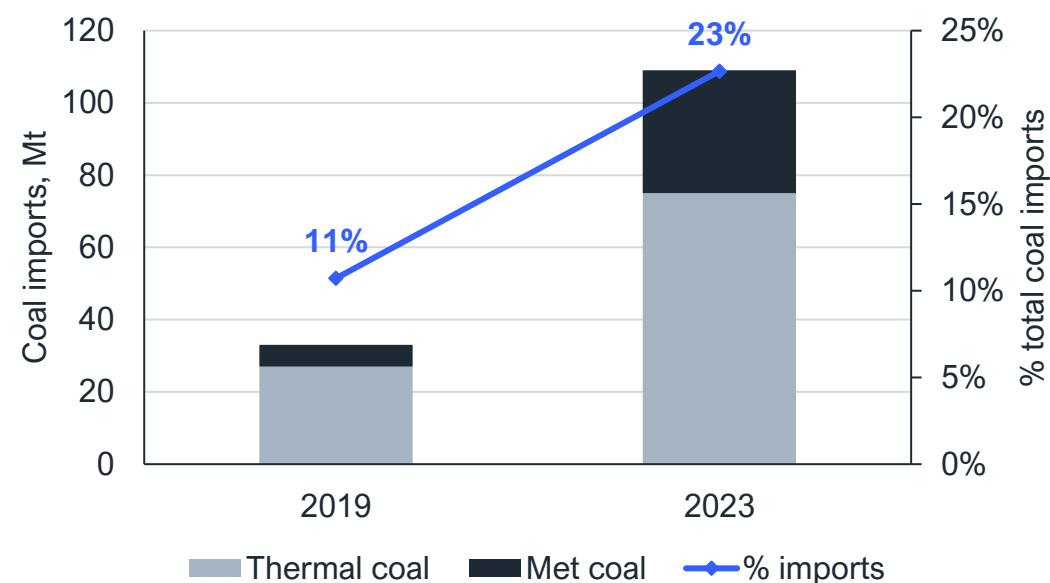
# A redirection of Russian coal towards Asia

## Buyers of Russian coal after EU bans

Shipments arriving since EU oil bans until end of March 2025



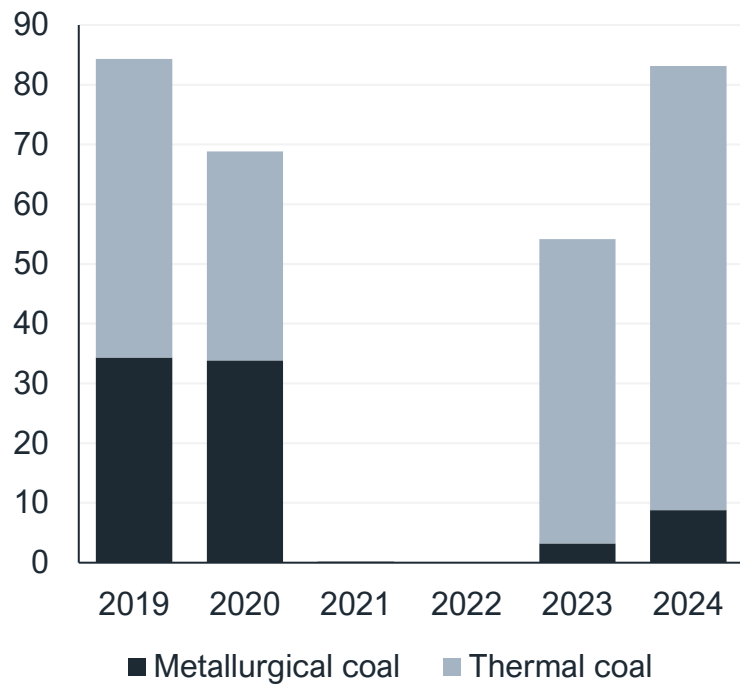
## Chinese coal imports from Russia



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

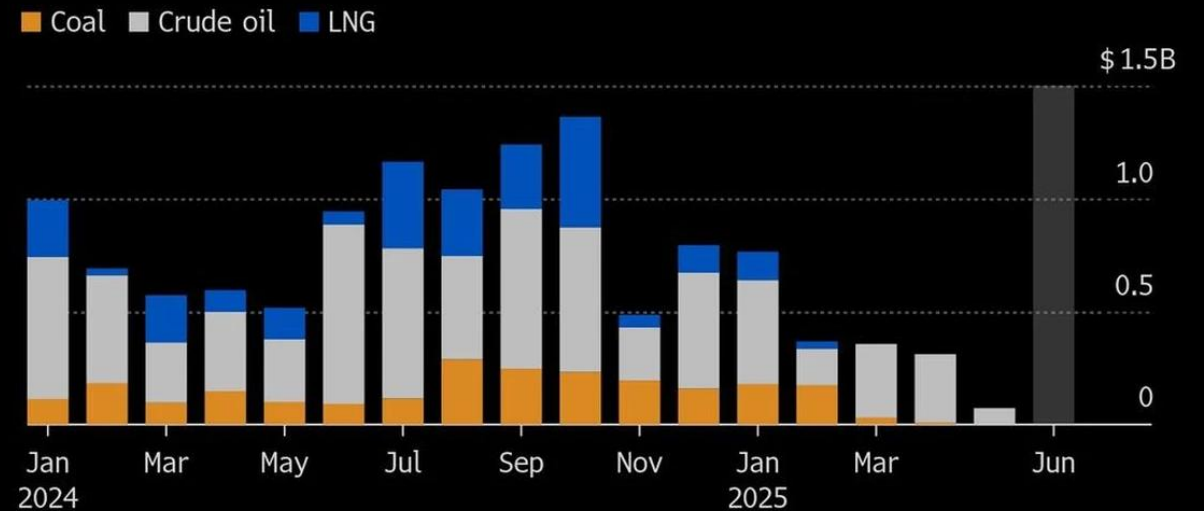
# The influence of bilateral relationships

Chinese coal imports from Australia, Mt



## Energy Imports Hit Zero

China has stopped importing coal, crude and LNG from US in June



Source: Trade Data Monitor, China's General Administration of Customs

Bloomberg

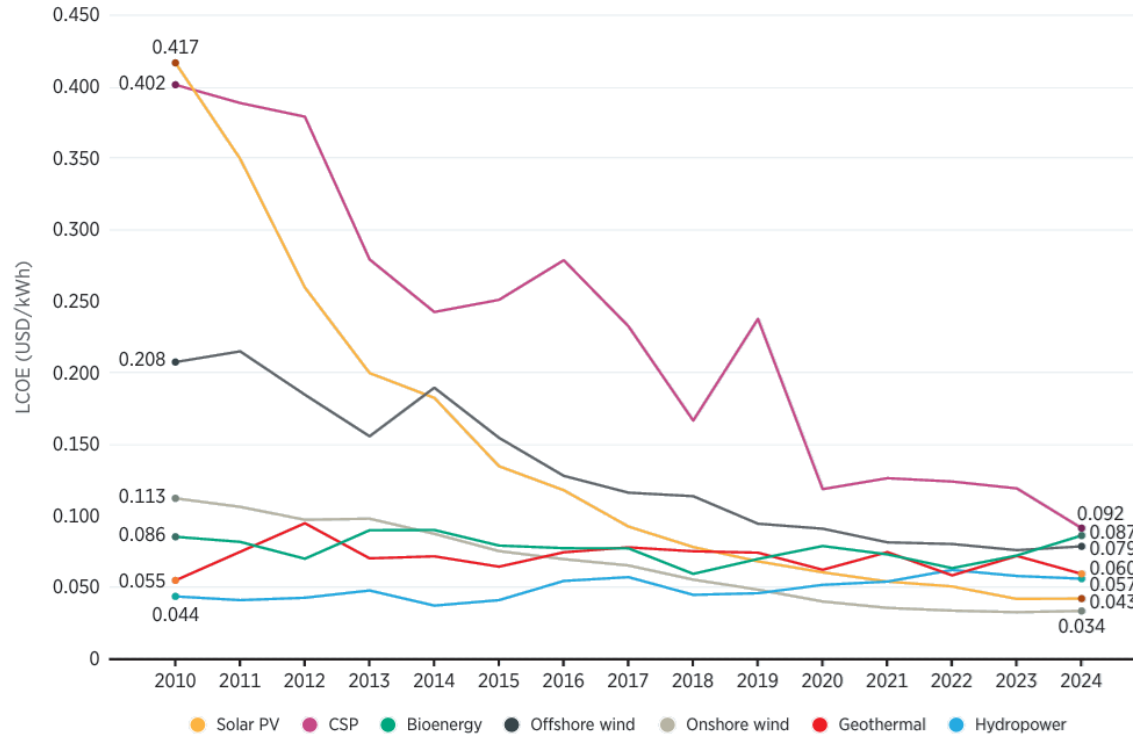
Source: Australian government, [Resources and energy quarterly, June 2025](#); Financial post, [China's Key US Energy Imports Near Zero Before Vital Trade Talks](#)

# Demand shifts

## *Thermal coal*

# Plummeting renewables costs

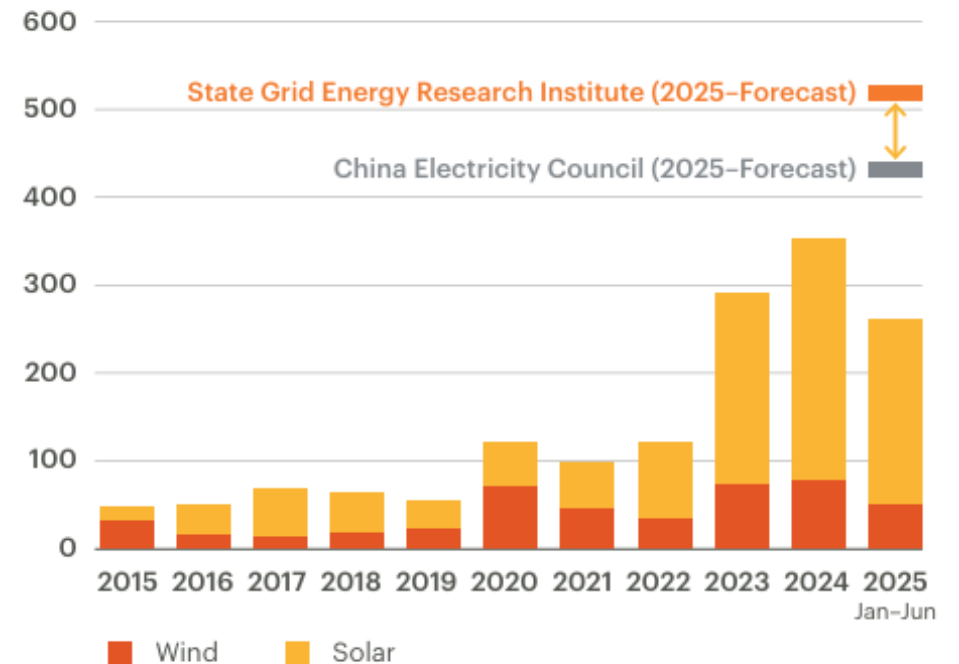
**Figure S1** Renewable energy LCOE decline, 2010-2024



**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](#)

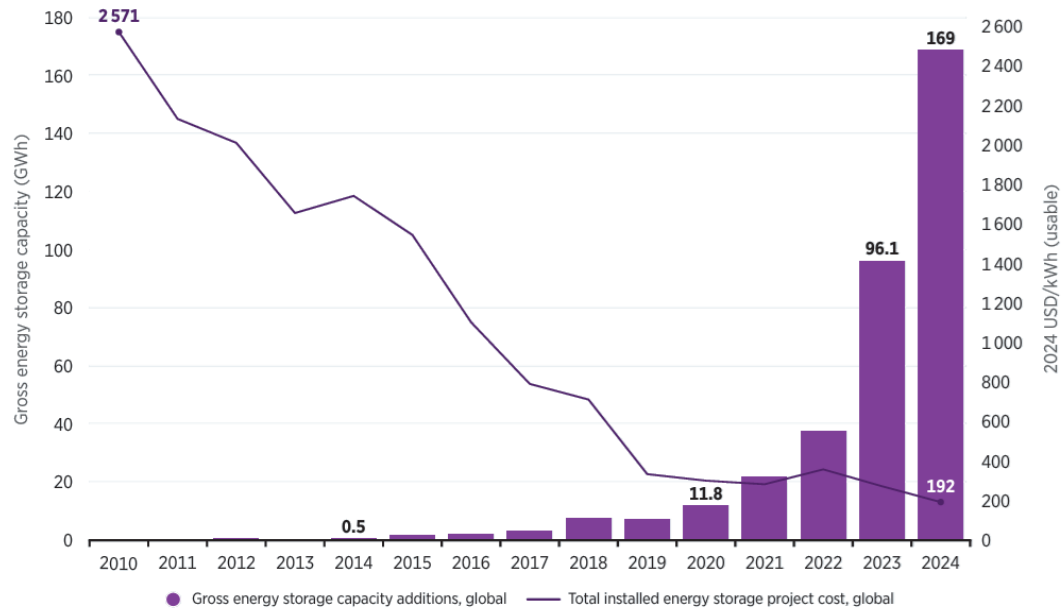
## China: Annual installed renewables capacity



Source: CEIC; State Grid Research Institute; BHP analysis

# 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

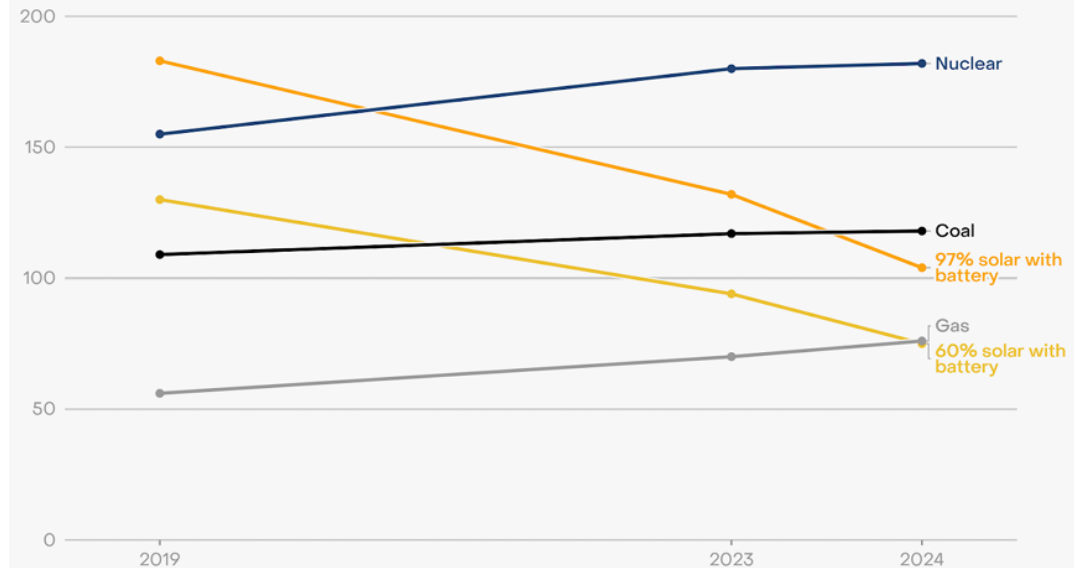


Source: (BNEF, 2024; Schmidt and Staffell, 2023).

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.

## 97% uninterrupted solar generation with battery every hour of every day is now cheaper than coal and nuclear

Evolution of the LCOE of generation technologies since (2019–2024), USD/MWh



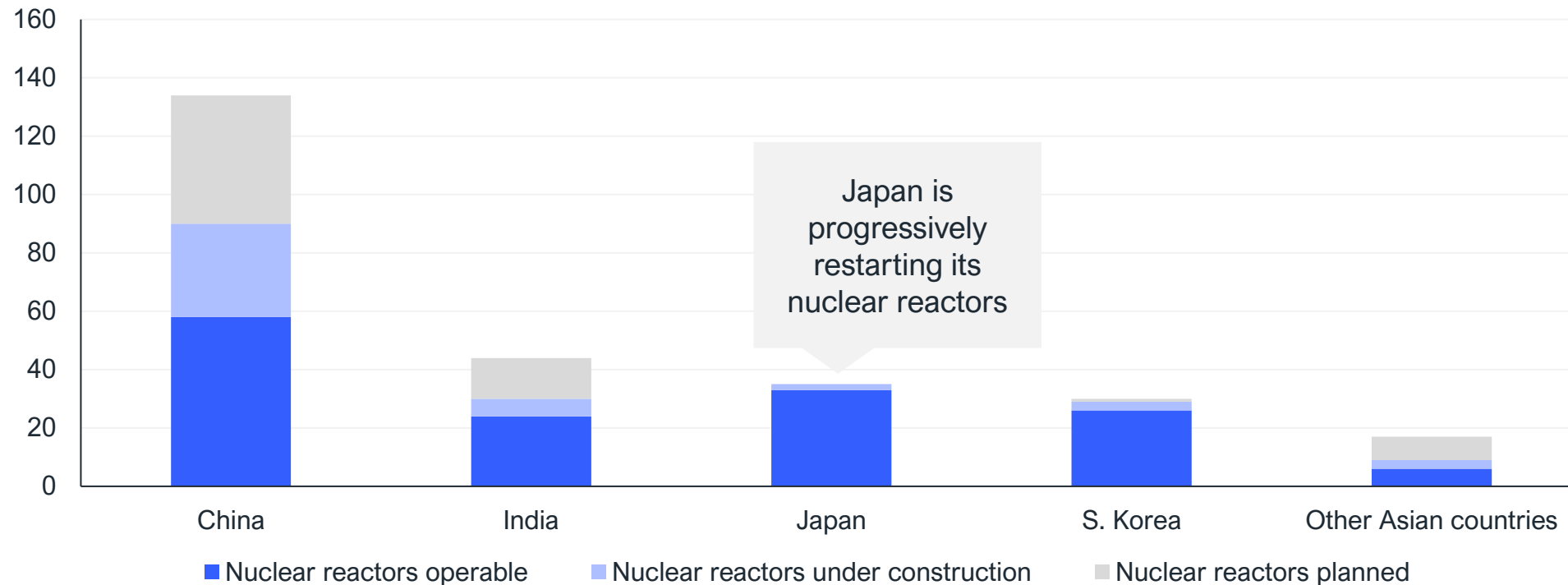
Source: Ember LCOE calculations, Full methodology · Key assumptions: CAPEX – \$388/kW solar, \$165/kWh battery; Other costs: \$76/kW grid connection; \$48/kW inverter; 10% total cost markup for soft costs; 7.7% discount rate over 20 years lifetime  
LCOE for Coal, Gas and Nuclear from Lazard's Levelized Cost of Energy Analysis—Version 17.0 (2024)

EMBER

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

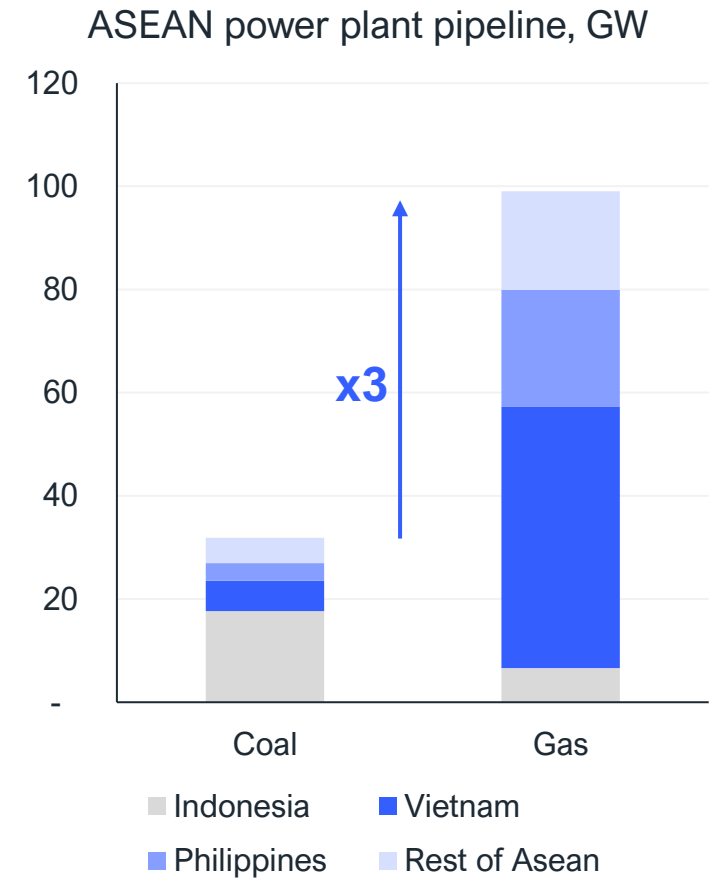
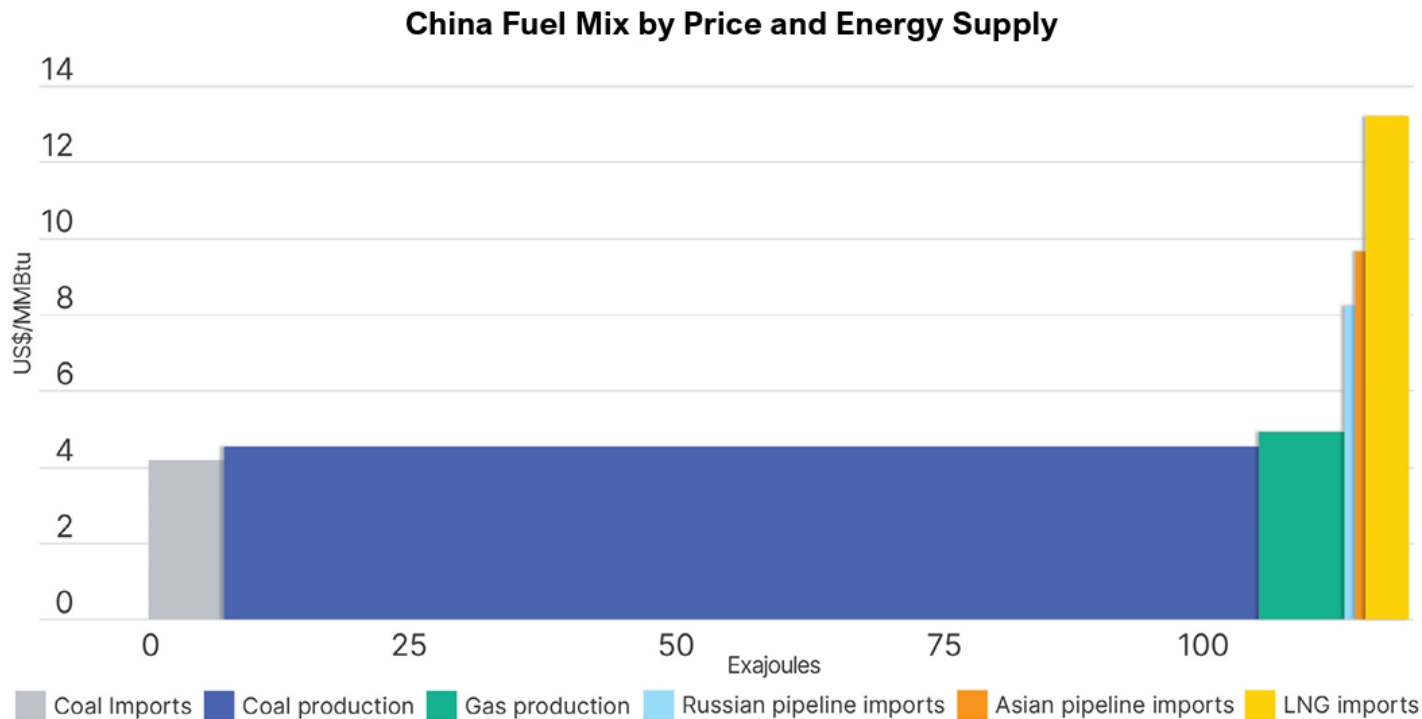
# Increasing nuclear generation

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?

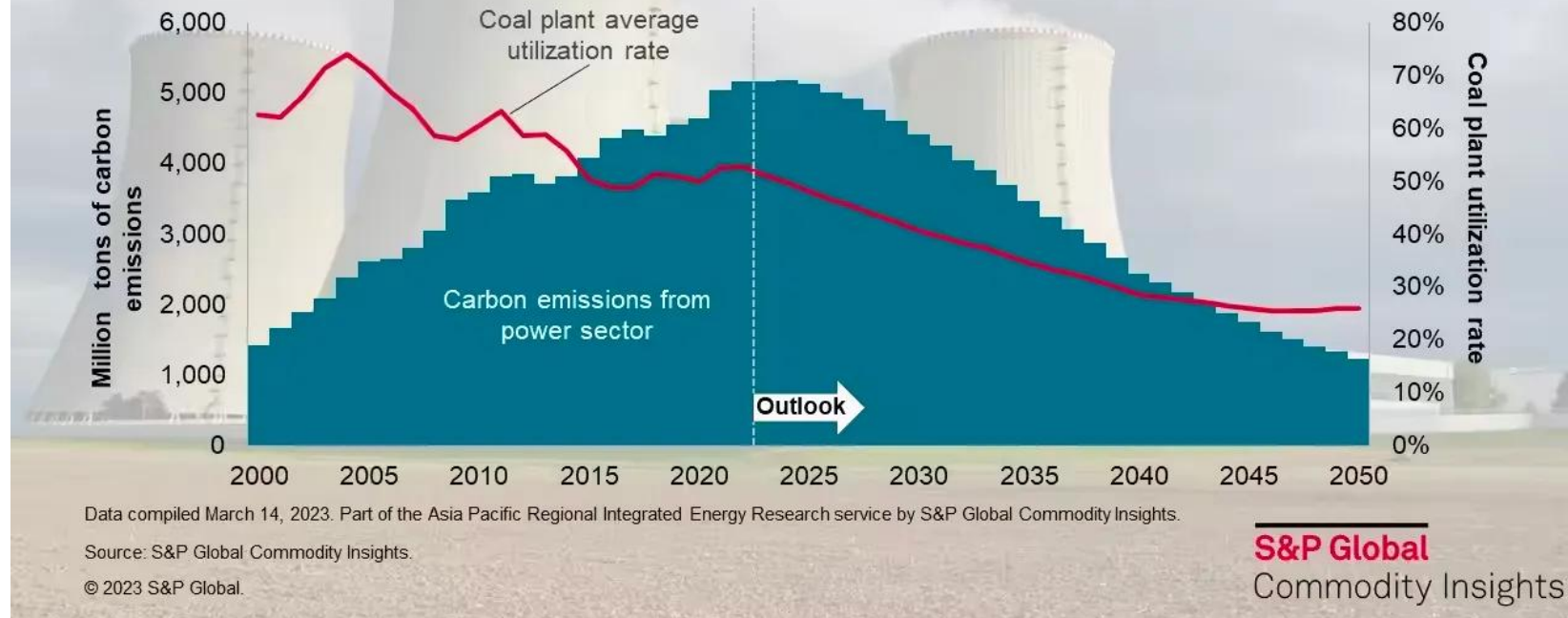


Source: IEEFA, [Understanding the competitive landscape for China's LNG market](#); Global Energy Monitor, [Global Integrated Power Tracker data set](#).

# Capacity ≠ Generation

## Coal-fired power in China: Running fewer hours to help meet reliability requirements

### China's coal-fired power utilization rate and total power sector emissions



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

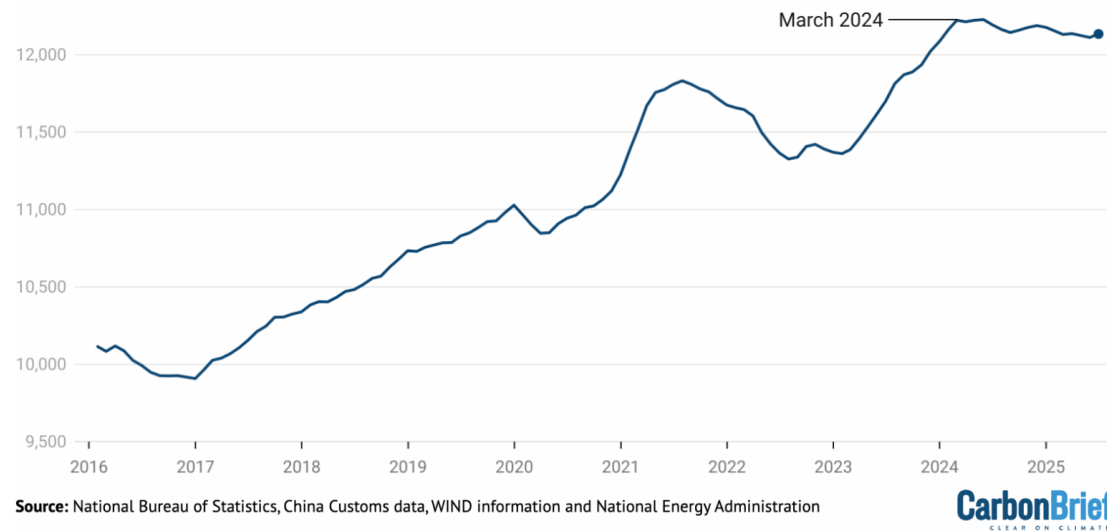
# Reaching a tipping point

## In the first half of 2025...

### China's emissions fell

#### China's CO<sub>2</sub> emissions continued to fall in first half of 2025

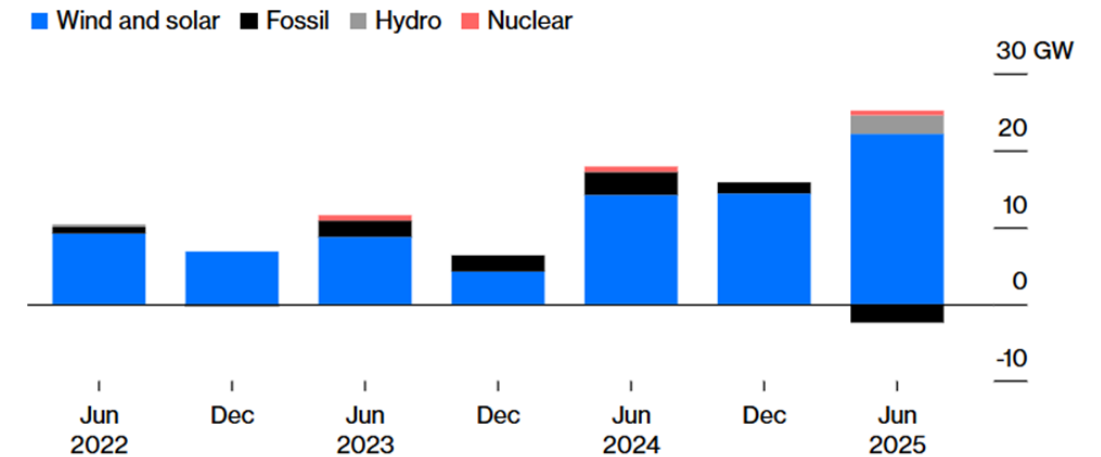
Emissions from fossil fuels and cement, MtCO<sub>2</sub>, rolling 12-month totals



### India had a net retirement of fossil fuels

#### Here Comes the Sun

India is installing record amounts of renewables, and retiring 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<sub>2</sub> falling in first half of 2025](#)

# CCS unlikely to save coal-based generation



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



	Project	Capacity (MtCO <sub>2</sub> p.a.)	Performance
	<b>Natural Gas processing</b>		
	1986 Shute Creek	7	Lifetime <b>under-performance</b> of 36%
	1996 Sleipner	0.9	Performing close to the capture capacity
	2004 In Salah	1.1	<b>Failed</b> after 7 years of operation
	2007 Snøhvit	0.7	Performing close to the capture capacity
	2019 Gorgon	4	Lifetime <b>under-performance</b> of ~50%
	<b>Industrial sector</b>		
	2000 Great Plains	3	Lifetime <b>under-performance</b> 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 <b>under-performance</b> of 45–50%
	<b>Power sector</b>		
	2014 Kemper	3	<b>Failed</b> to be started
	2014 Boundary Dam	1	Lifetime <b>under-performance</b> of ~50%
	2017 Petra Nova	1.4	<b>Suspended</b> after 4 years of operation

### Two reportedly successful projects in Norway:

- **Sleipner**: CO<sub>2</sub> 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<sub>2</sub> it captured since FY2021-22
- **Cost >US\$130/tCO<sub>2</sub> captured** since it started

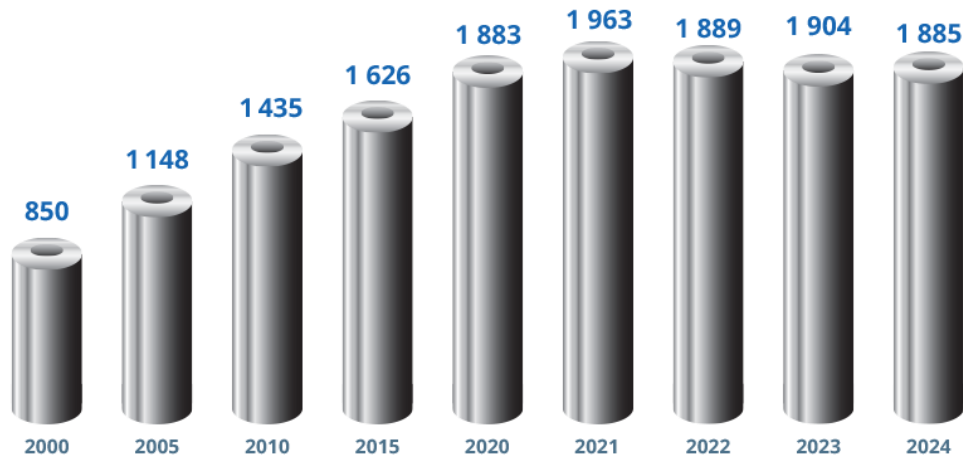
Source: IEEFA, [Carbon Capture and Storage factsheet](#)

# **Demand shifts**

## ***Metallurgical coal***

# Declining steel demand

Crude steel production 2000-2024, Mt



FINANCIAL REVIEW

Newsfeed

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

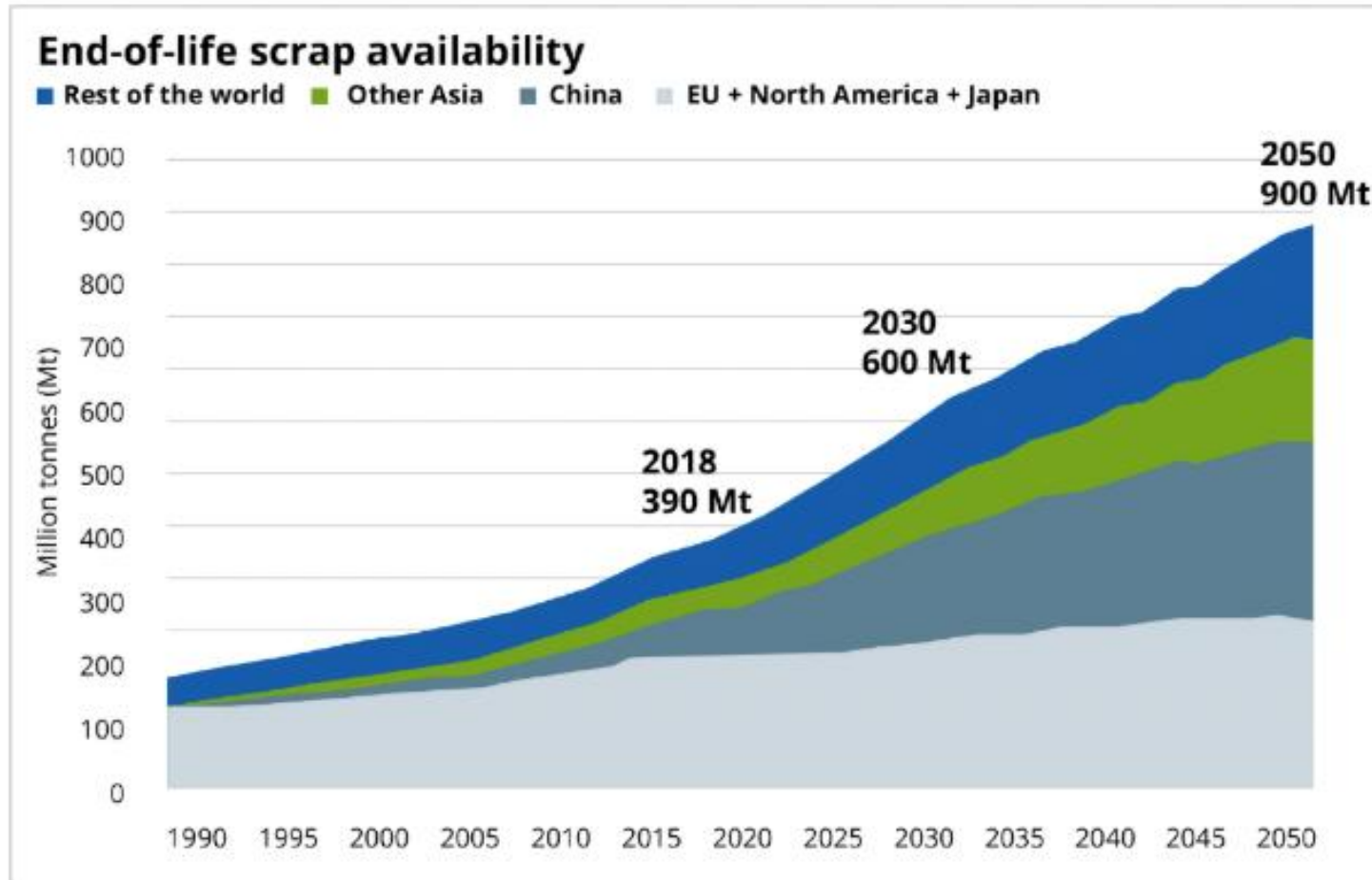
≡ **Business Standard**

**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



Source: World Steel Association; IEA

Share of scrap in inputs  
(China)

**10%**  
today

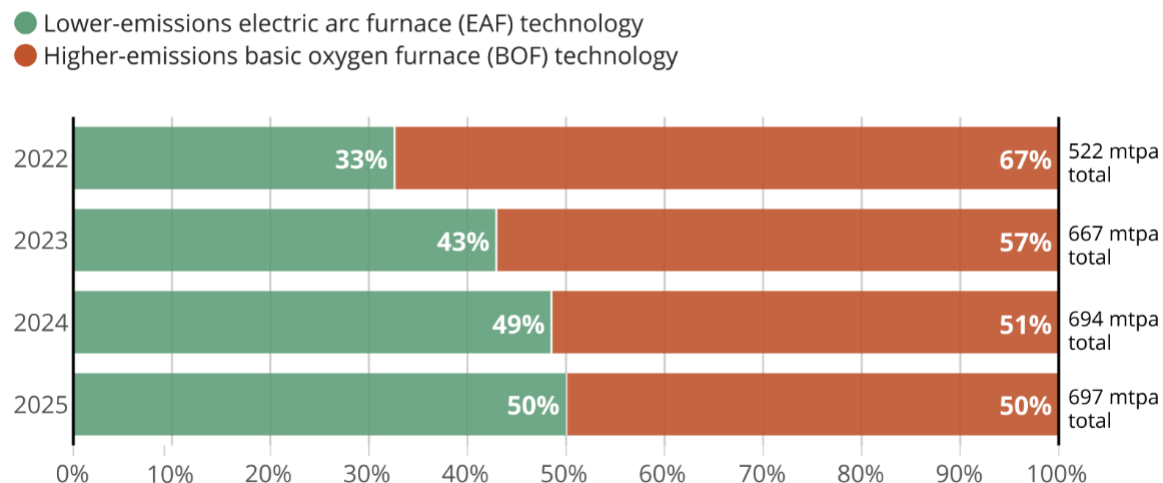


**20%**  
By 2030

# 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

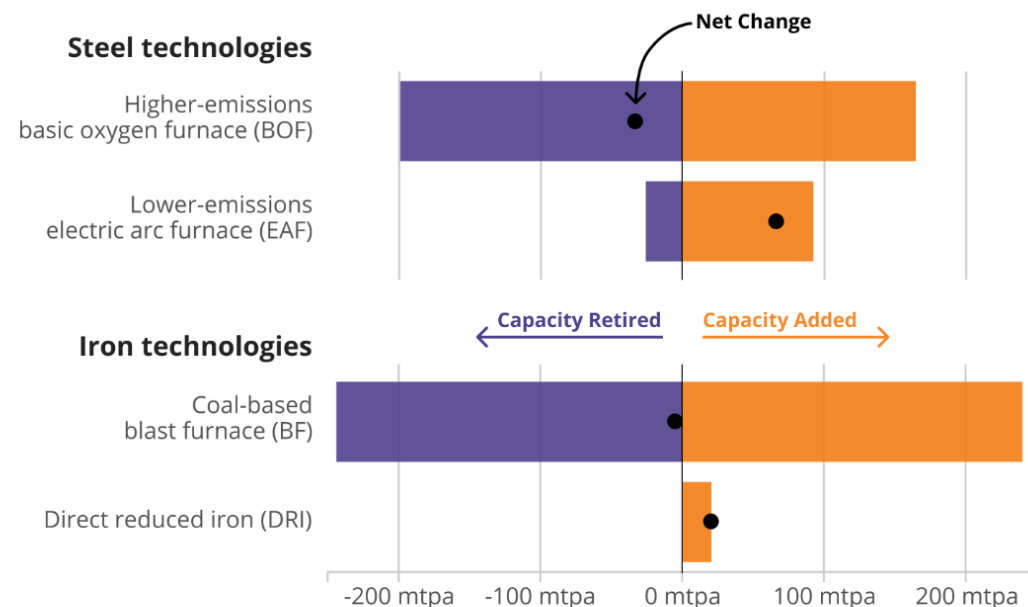


Source: Global Iron and Steel Tracker, Global Energy Monitor.

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)

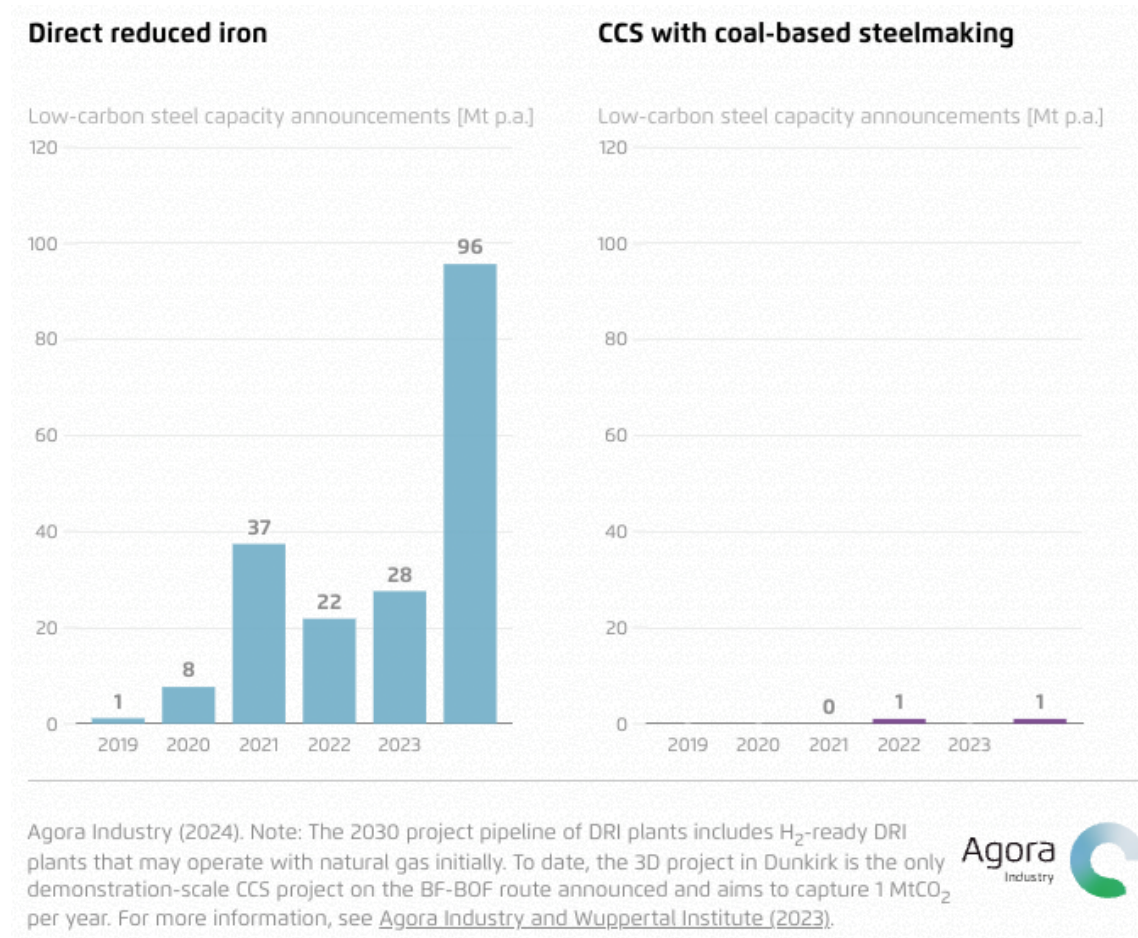


Source: Global Iron and Steel tracker, Global Energy Monitor



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?

## Commercial banks financing of coal



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*



**Private credit dominates  
Whitehaven Coal's \$1.1bn loan**

**THE GLOBE AND MAIL<sup>\*</sup>**

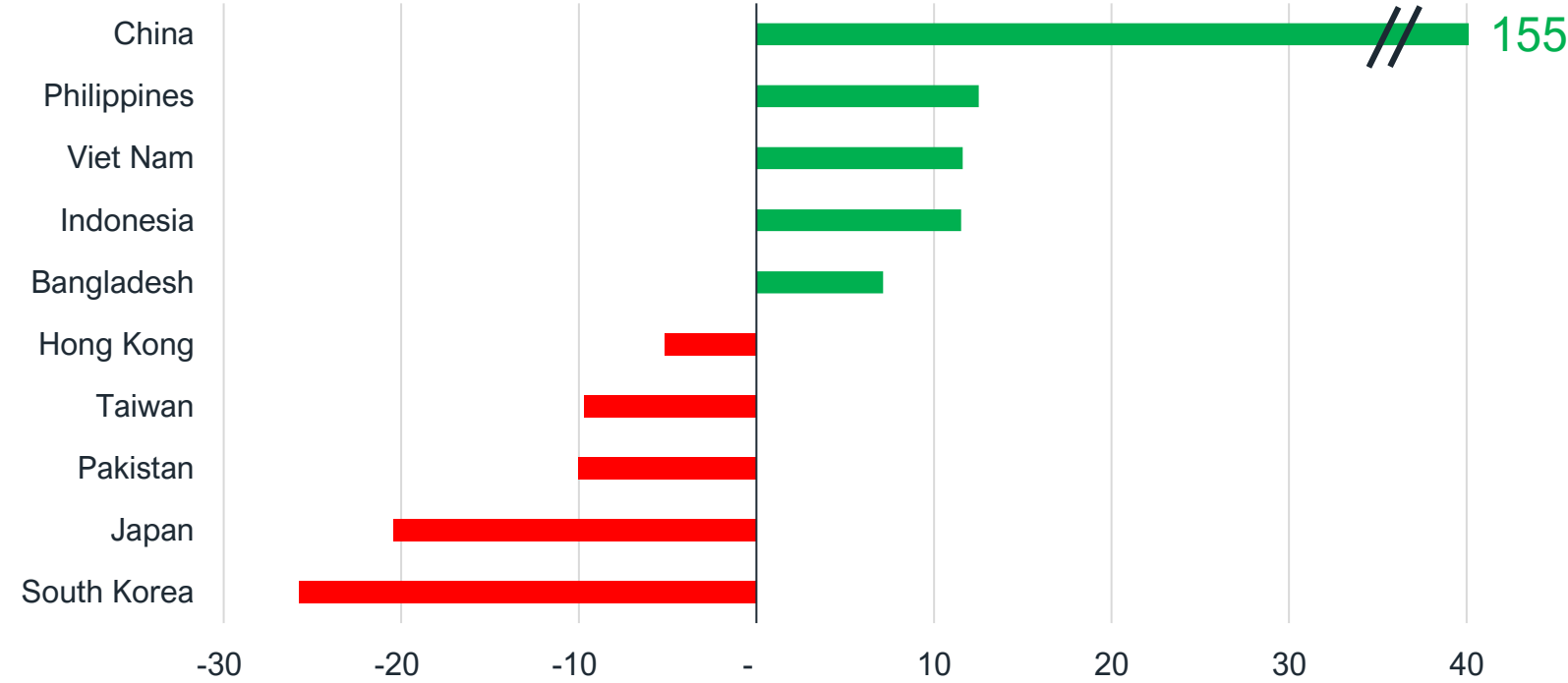
**Coal miners forced to save for a rainy day by insurance snub**

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

Change in coal import volumes between 2019 and 2024, Mt



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*



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**Indonesia's coal  
companies: Some  
diversify, others expand  
capacity**

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



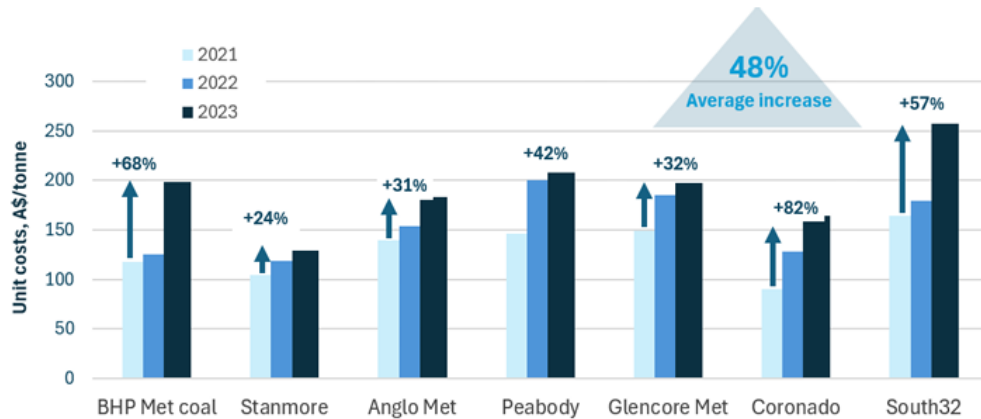
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# Increasing cost of production in Australia

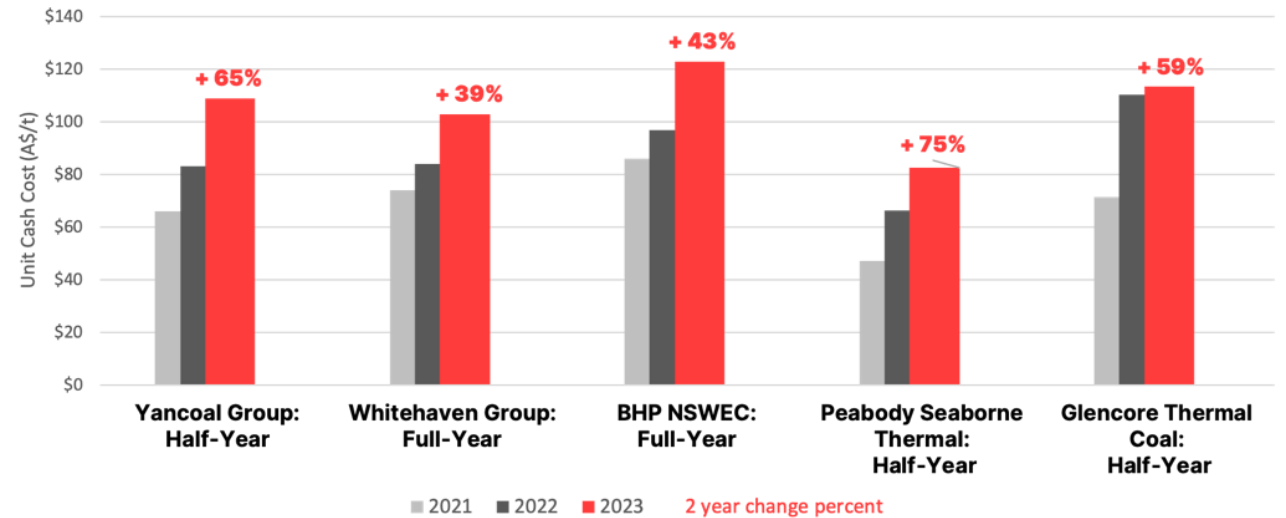
## Unit costs reported by key metallurgical and thermal coal producers in Australia, 2021 to 2023

### Metallurgical coal producers



Notes: 1. Normalised to AUD/tonne. Peabody and Glencore unit costs include royalties.  
 2. Comparison shows reported unit costs in 2021, 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

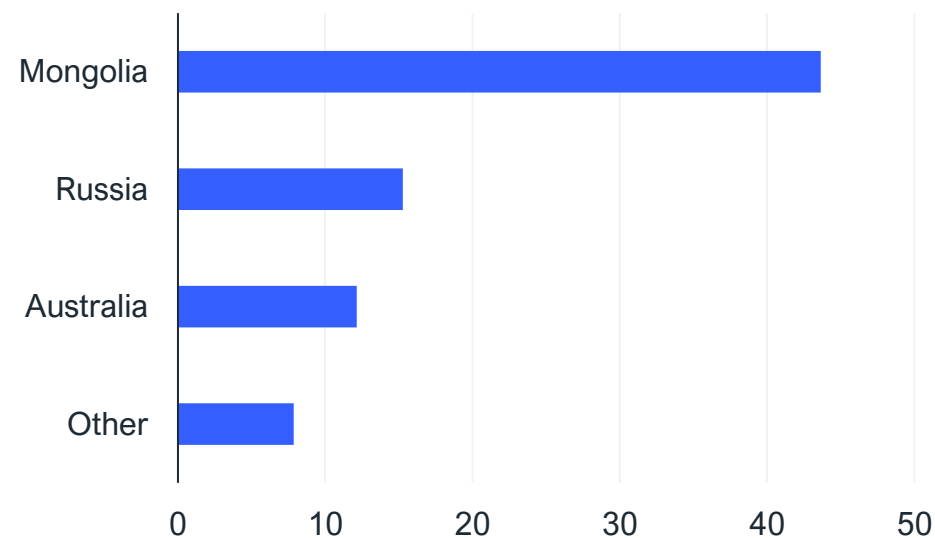
**Bloomberg**

**Mongolia Aims to Lift Chinese Coal Sales to 100 Million Tons**

**Việt Nam News**

**An agreement on coal trading with Laos to be developed**

Change in metallurgical coal exports, 2022-2024, Mt



Source: Bloomberg; Vietnam News; IEA, [Changes in metallurgical coal exports, 2022-2024](#)

# Conclusion

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- 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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