

1-1. APERC Coal Report 2023

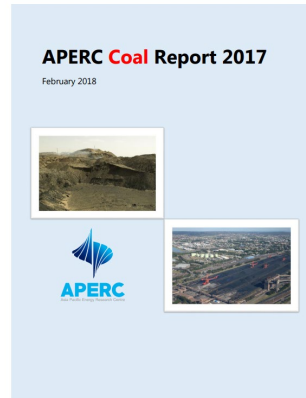
EGCFE 2024 Meeting

23 May 2024 – Nanjing, China

Phung Quoc HUY, Senior Researcher, APERC

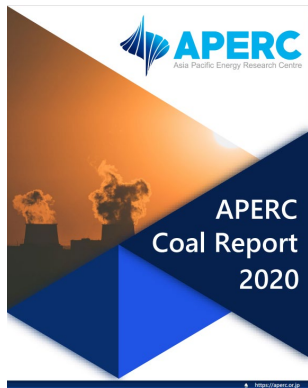


APERC Coal Reports



Link to download full report:

https://aperc.or.jp/file/2024/2/15/APERC_coal_report_2023_final_1_Feb_2024.pdf



Report structure:

Chapter 1: APEC coal policies and decarbonisation technologies

Chapter 2: Coal consumption

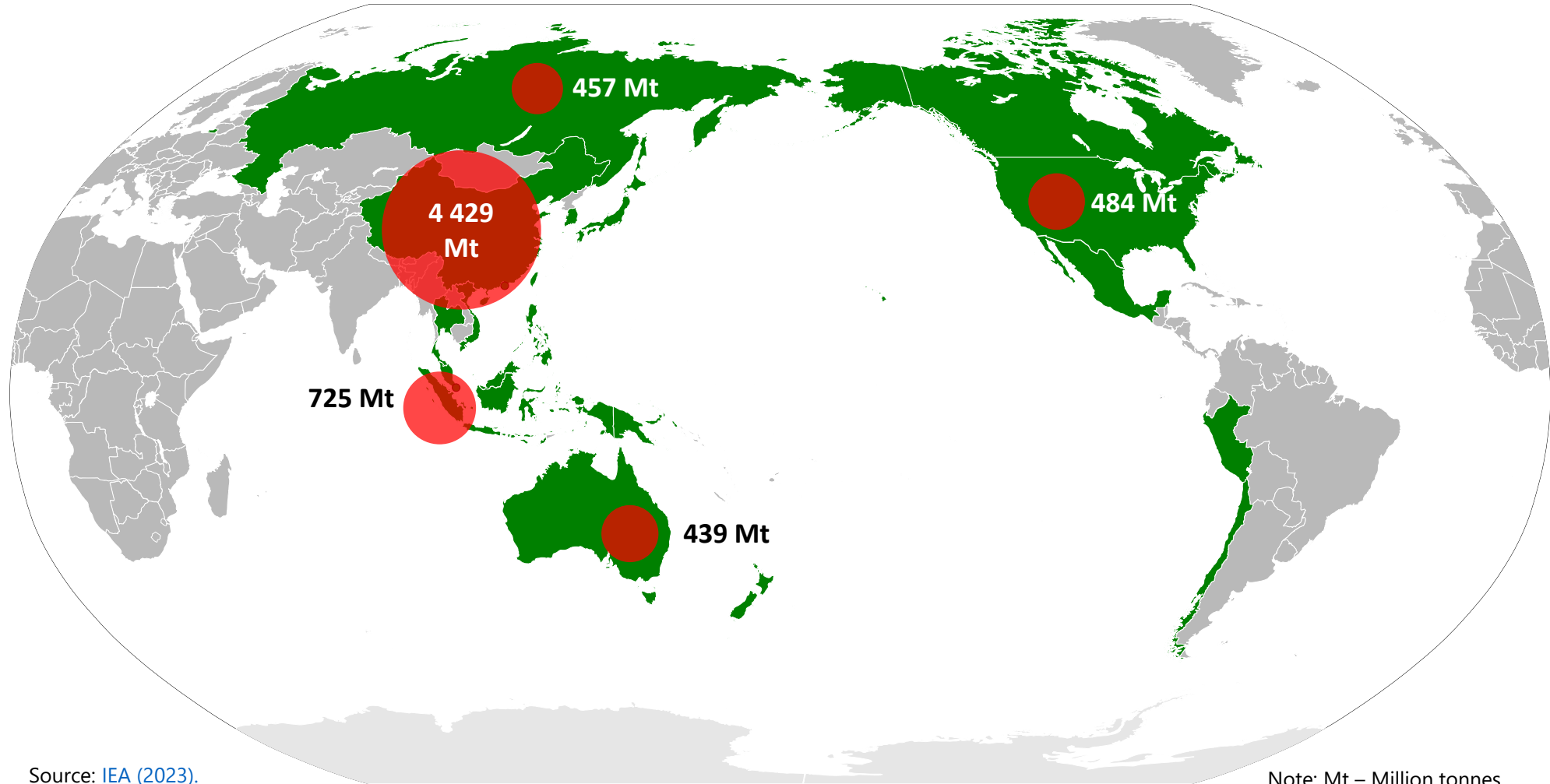
Chapter 3: Coal production

Chapter 4: Coal trade

Chapter 5: Prices and costs

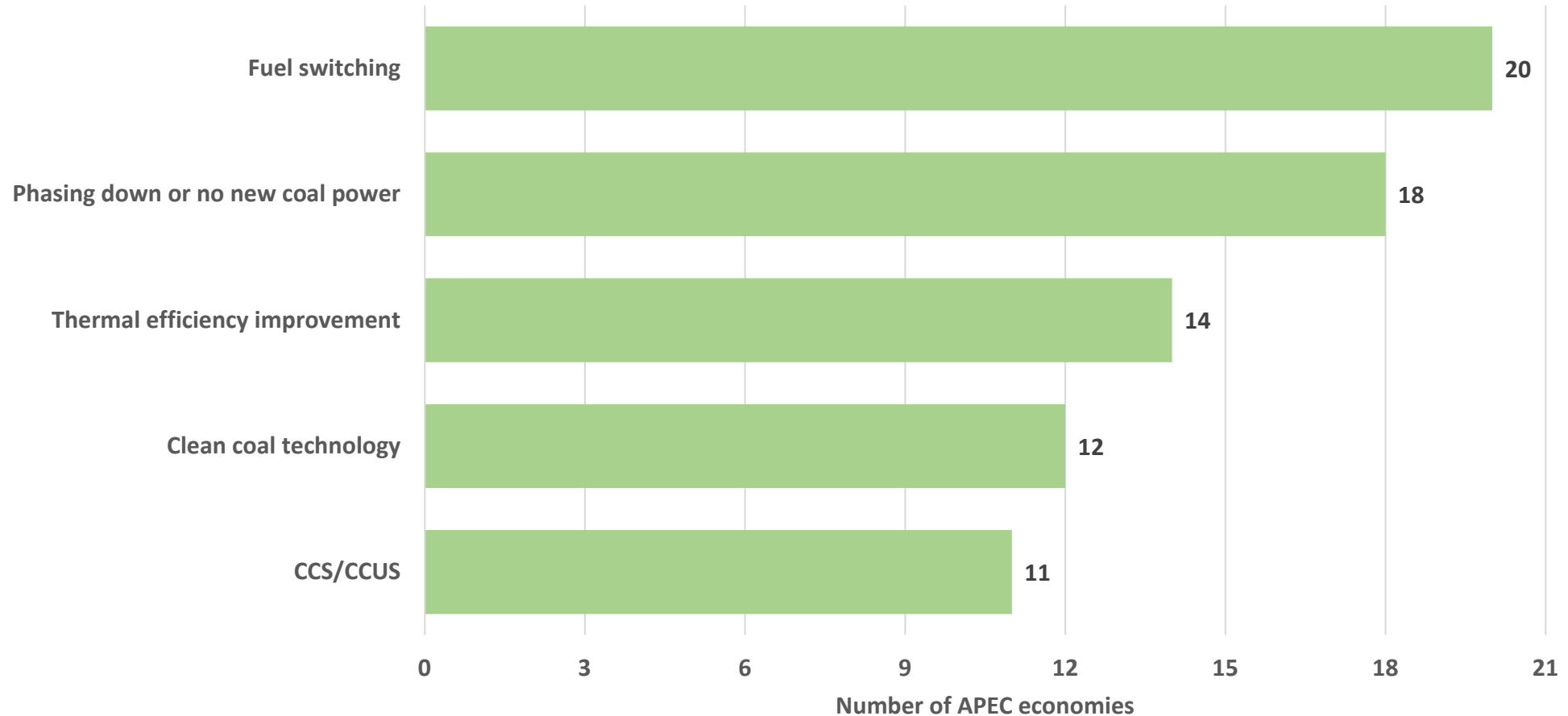
Chapter 6: Greenhouse gas emissions from the coal value chain

APEC main coal producers



Coal production in the top-five APEC coal producers accounted for 75% of global coal production in 2022

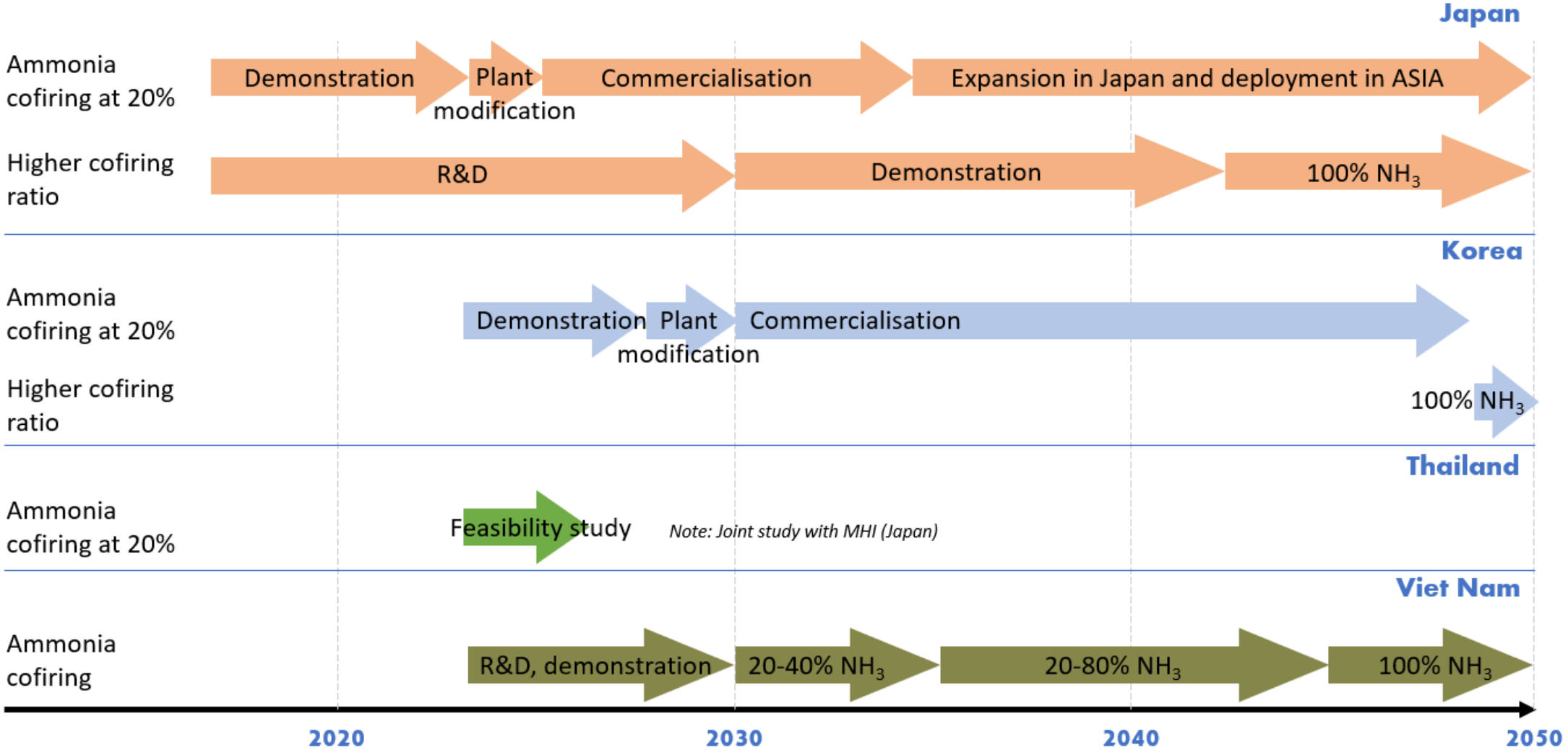
Current and planned measures to support decarbonising large coal users



Source: APERC Coal Report 2023

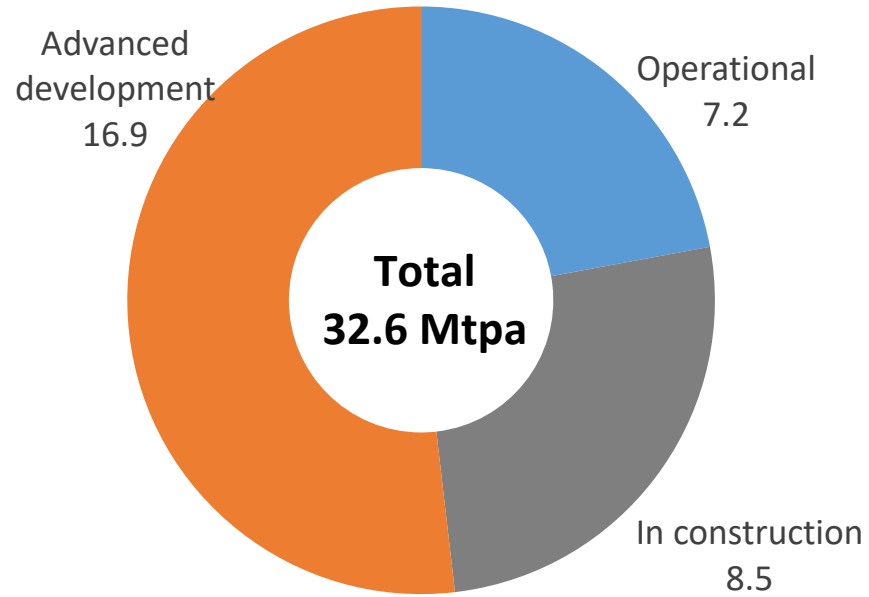
More economies in APEC have plans to reduce coal usage and considers CCS/CCUS technology to decarbonise coal-based power and industrial plants

Development of cofiring ammonia and coal in existing coal-fired power plants



Source: APERC Coal Report 2023

CCS is a vital technology to decarbonise coal-based power and industrial plants

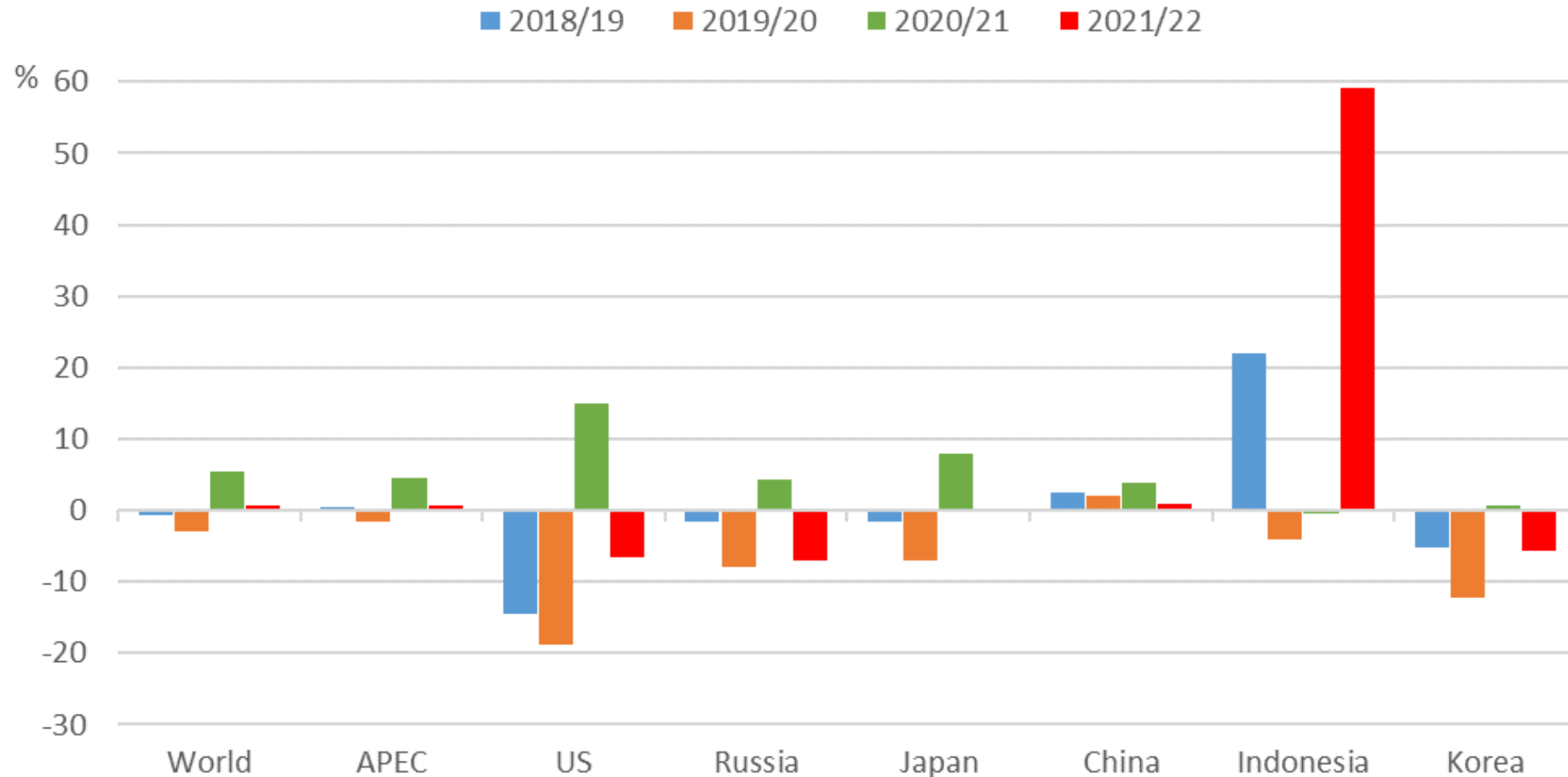


Source: APERC Coal Report 2023

No	Project name	Location
1	Boundary Dam Carbon Capture and Storage	Canada
2	Sinopec Qilu-Shengli	China
3	Yangchang Yulin CO ₂ -EOR	China
4	China National Energy Taizhou	China
5	China National Energy Ningxia	China
6	Huaneng Longdong Energy Base	China
7	Yulin intergrated coal-to-liquid	China
8	Sinopec Shengli Power Plant	China
9	Petra Nova Carbon Capture	US
10	Great Plains Synfuels Plant and Weyburn-Midale	US
11	Minkota Power Project Tundra	US
12	Gerald Gentleman Station	US
13	Prairie State Generating Station	US

In the coal power sector, the Boundary Dam and the Petra Nova are the only two coal-fired power plants in the world with retrofitted CCUS facilities with a total capacity of 2.4 Mtpa.

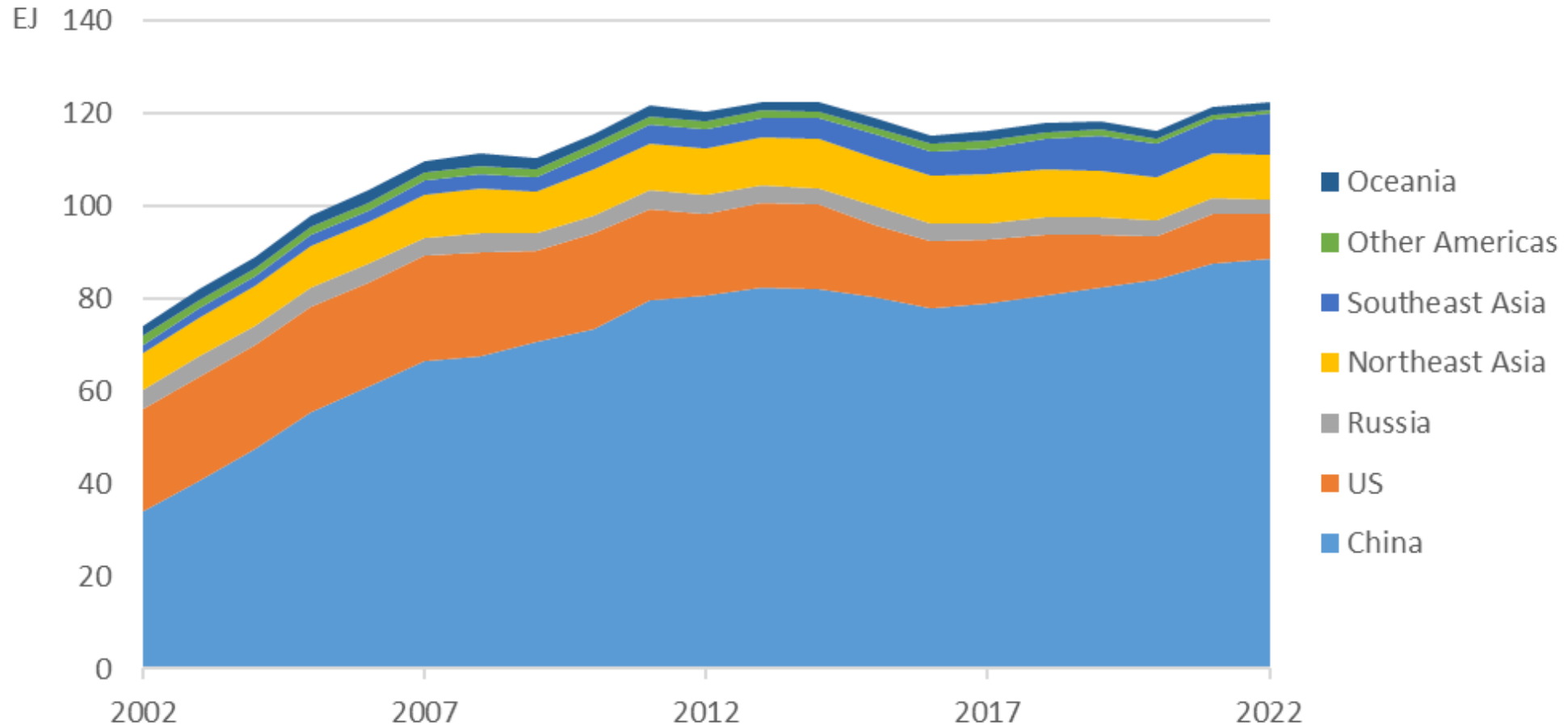
Coal consumption growth rate for the world and selected APEC economies



Source: APERC Coal Report 2023

Indonesia's coal consumption rose sharply in 2022, due to high coal demand for new coal-fired power and nickel smelting plants

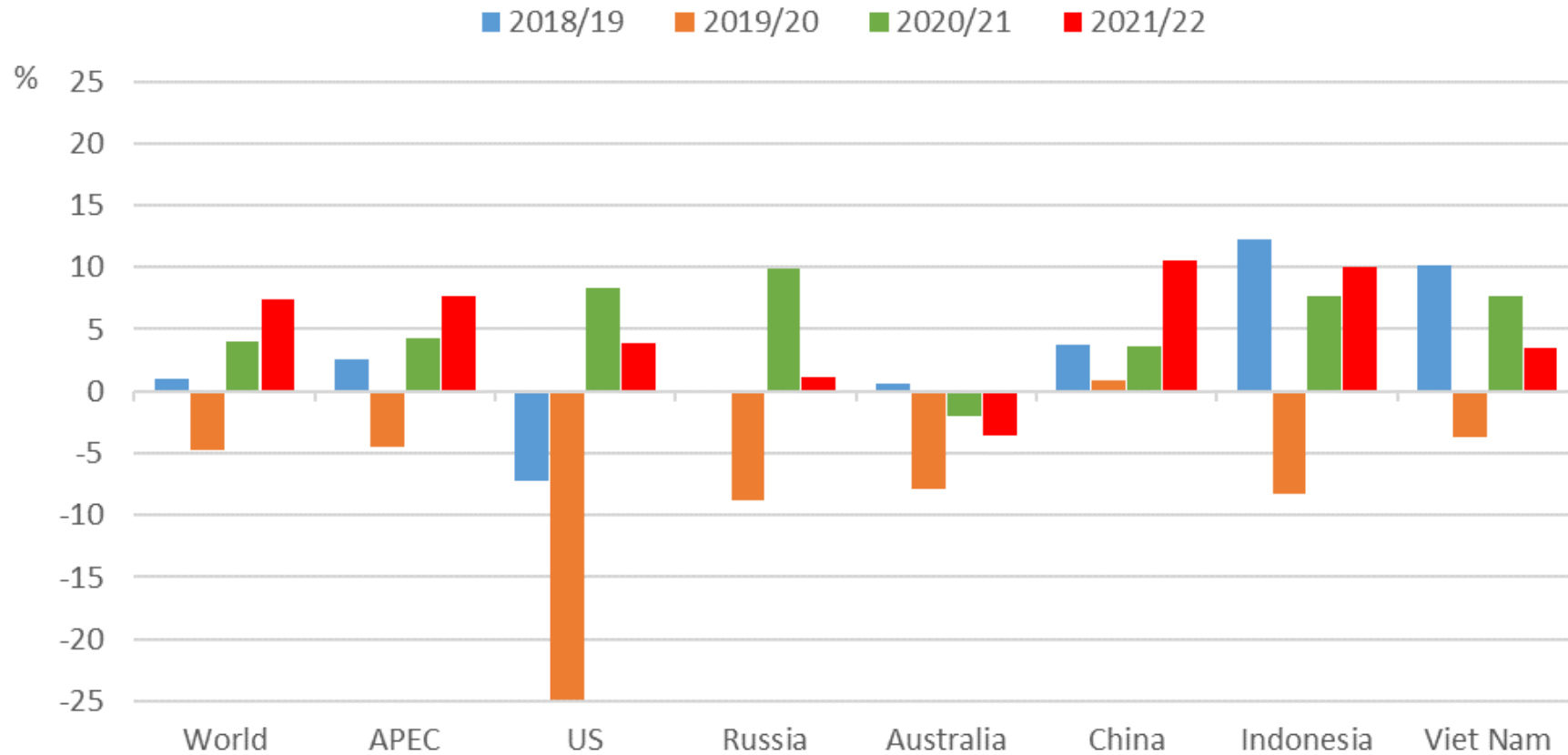
APEC coal consumption by region



Source: APERC Coal Report 2023

China's coal consumption reached an all-time record high in 2022, accounting for approximately 72% of the total coal consumption in the APEC region

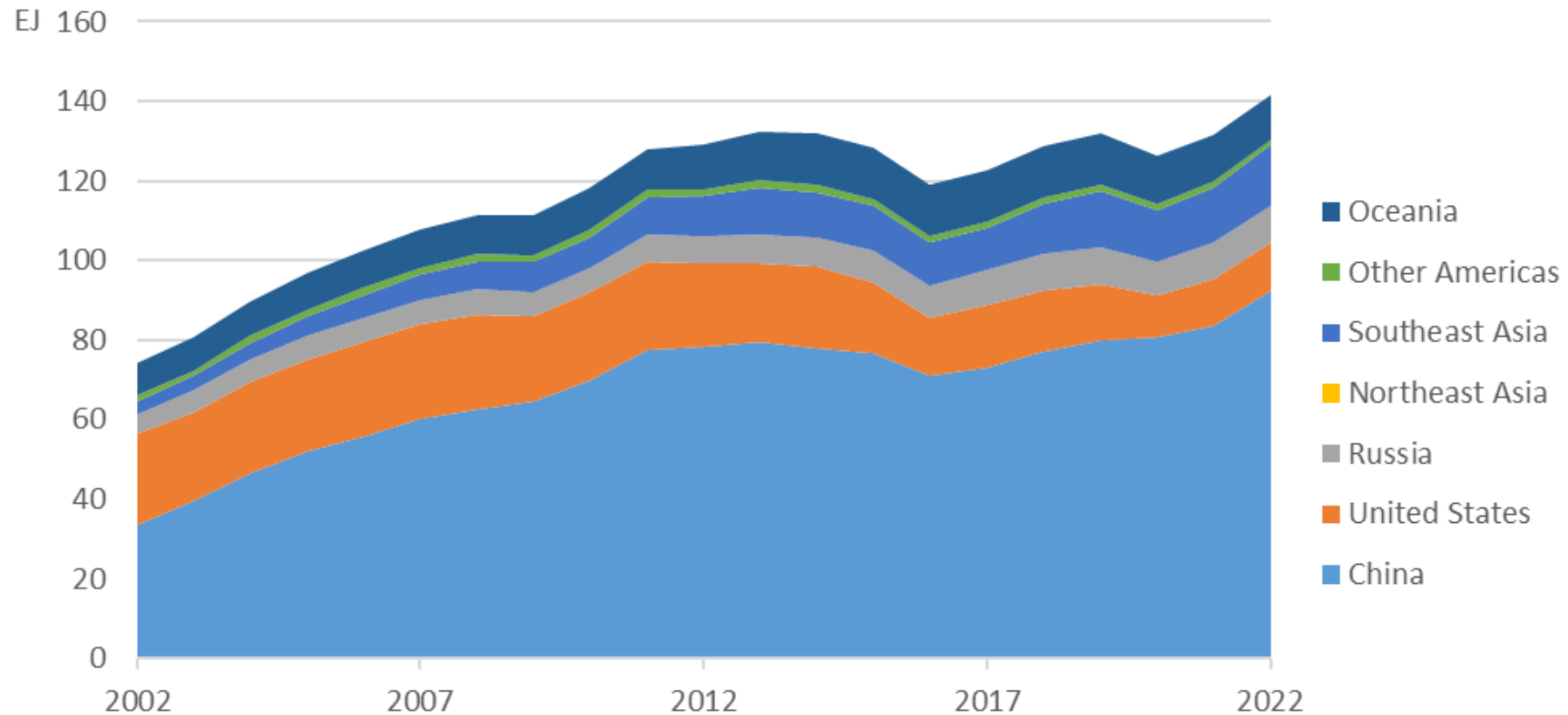
Coal production growth rate for the world and selected APEC economies



Source: APERC Coal Report 2023

Most selected economies increased its coal production in 2022 except Australia

APEC coal production by region

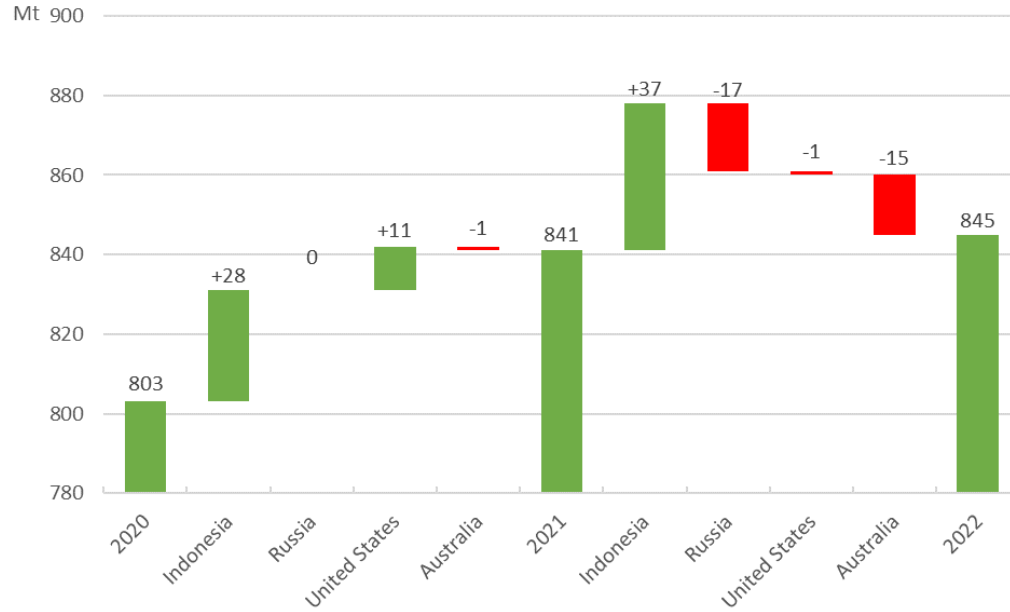


Source: APERC Coal Report 2023

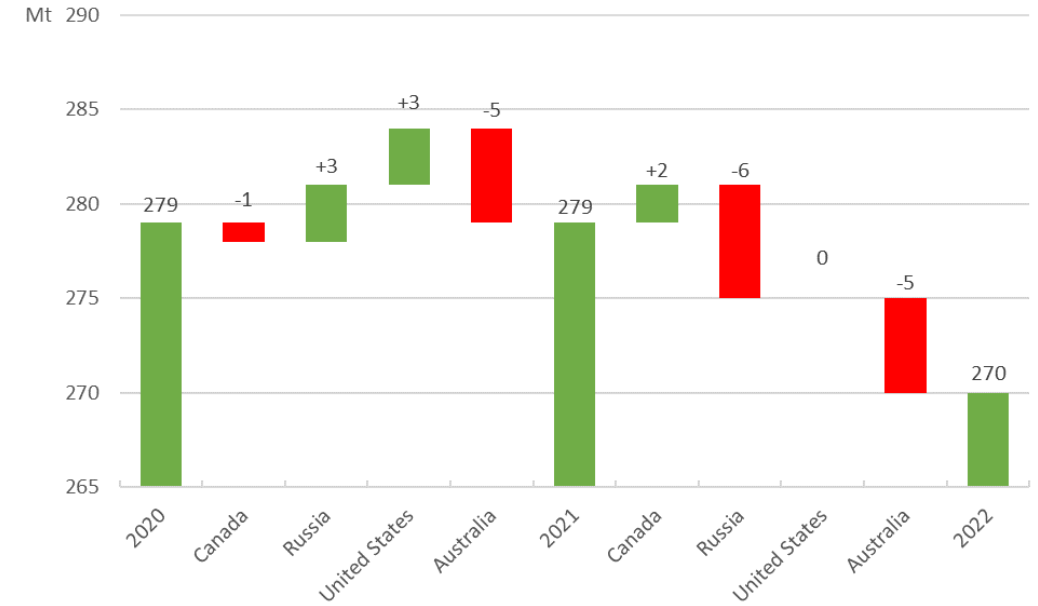
China, the largest coal producer in the APEC and the world, produced 92.2 EJ, accounting for approximately 65% of APEC coal production in 2022

Change in coal exports from major APEC coal exporters

Thermal coal exports



Metallurgical coal exports



Source: APERC Coal Report 2023

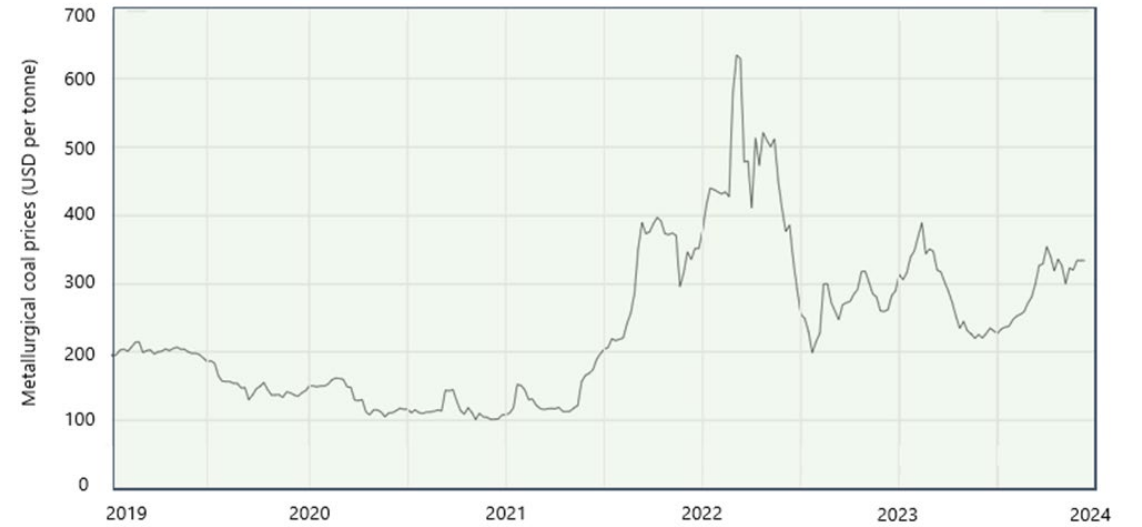
- Geopolitical issue affected thermal coal exports of Russia and Australia in 2022.
- Metallurgical coal exports in Australia declined due to a drop in global steel production in 2022

Coal spot prices

Thermal coal



Metallurgical coal



Source: APERC Coal Report 2023

- Thermal coal spot prices in 2023 return to the pre-energy crisis level at the end of 2021
- With the impact of the war and volatile energy prices, coking coal prices surged to an unprecedented level of about USD 630 per tonne on 21 March 2022

Key takeaways

- APEC economies are increasingly committed to decarbonising their power sector.
- Various decarbonisation technologies could become feasible for coal-based power and industrial plants.
- APEC-wide coal consumption rose slightly in 2022 but was not uniform across all economies.
- APEC coal production rose 7.7% in 2022 compared to 2021, though the rising trend was not uniform across all economies.
- Thermal coal exports from Indonesia grew in 2022, but exports from other APEC economies declined.
- Coal prices reached record-high levels in 2022. Prices moderated in 2023 but are still above pre-pandemic levels.

Thank you.

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