



Australian Government

Department of Industry,
Science and Resources

Australian Government

Presentation for Japan Carbon Frontier Organization

'Energy Security with Decarbonization Symposium'

Presenter: Matt Brown | 3 September 2024

Our purpose is to help the government build a better future for all Australians through enabling a productive, resilient and sustainable economy, enriched by science and technology.

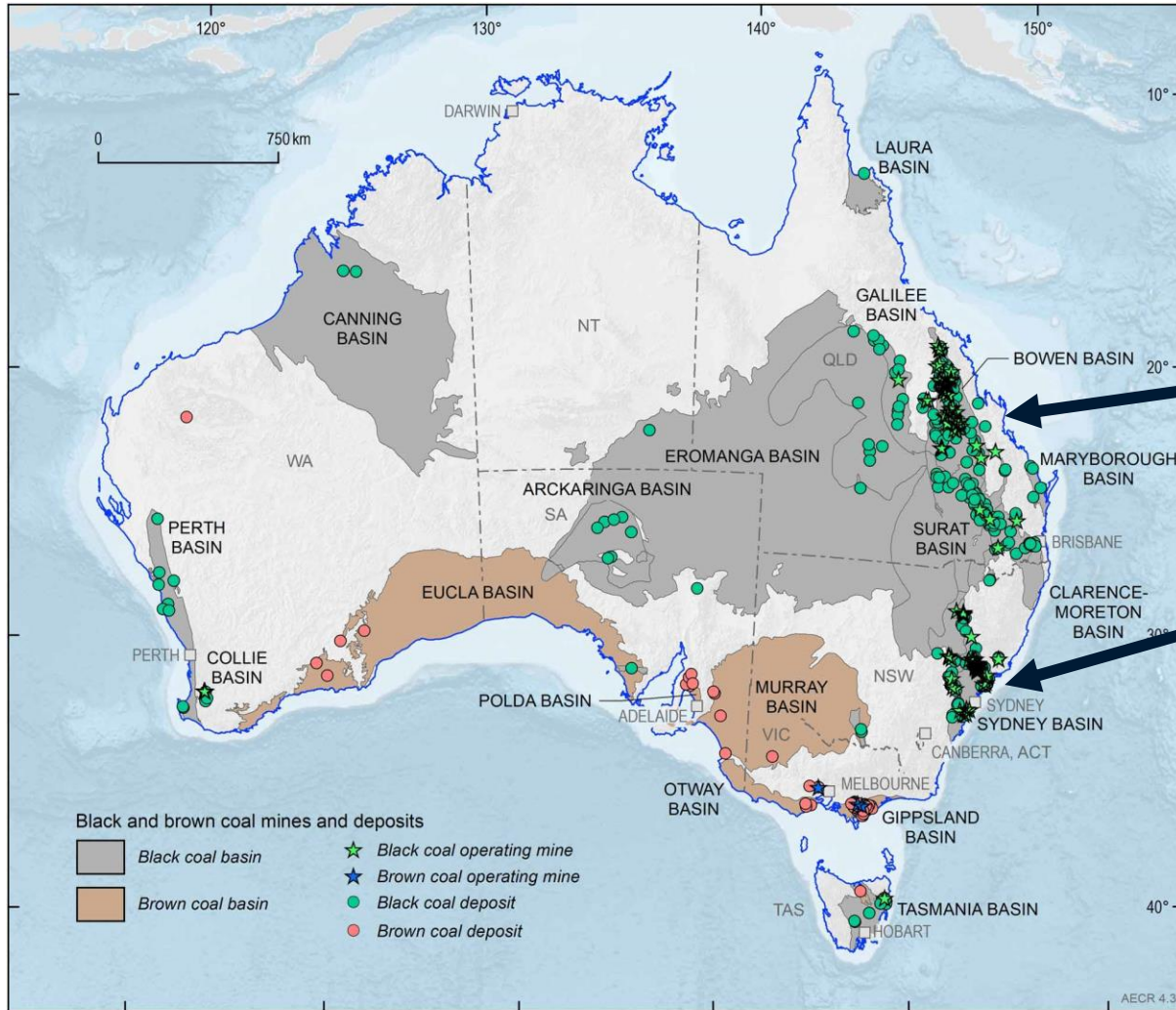
industry.gov.au

Presentation structure

1	Coal industry overview
2	State and Commonwealth responsibilities
3	Australia's coal and energy policies
4	Emissions reductions policies

Coal industry overview

Australian coal industry update



- Australia has **93 operating black coal mines**, with most of the production in;
 - Queensland (56%) and
 - New South Wales (43%)
- Globally, Australia is the **fifth largest producer**, the **second largest exporter**, and has the **third largest reserves of coal** in the world.

Australian coal industry update

- **Weather** affects production: La Niña (wet) chance for coming Australian Spring ([BoM](#)).
- The **Resources and Energy Quarterly (REQ)** outlook:
 - **Metallurgical coal** volumes expected to grow over the next five years as new mines ramp up.
 - **Thermal coal** volumes have recovered as weather disruptions ease and new mines ramp up.
 - **Prices are falling slowly** as disruptions ease and supply conditions improve.
- **10 coal projects ([REMP](#)) at committed stage** in Australia:
 - 5 in QLD and 5 in NSW.

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Climate Driver Update

Climate influences in the Pacific, Indian and Southern oceans and the Tropics

Issued 6 August 2024 Next issue 20 August 2024

For long-range forecasts of rainfall and temperature for Australia, please see our long-range forecast page. It provides the best guidance on likely conditions in the coming months, using the Bureau's climate model to take into account all influences from the oceans and atmosphere when generating its long-range forecasts.

The Climate Driver Update provides information on the broader hemispheric climate state, such as the El Niño Southern Oscillation and Indian Ocean Dipole. This information provides additional context to the rainfall and temperature forecasts.

Overview Pacific Ocean Indian Ocean Southern Ocean Tropics

Summary Sea surface

ENSO and IOD neutral, SAM strongly negative
The El Niño–Southern Oscillation (ENSO) is currently neutral.

Sea surface temperatures (SSTs) in the central equatorial Pacific Ocean are ENSO-neutral, following a steady cooling from El Niño levels since December 2023. This cooling is being sustained by deep waters surfacing in the central and eastern Pacific. However, the rate and extent of cooling both at and below the surface has decreased since May. Atmospheric patterns, including cloud and trade winds, are currently ENSO-neutral.

ENSO is likely to remain neutral until at least early spring. Three of 7 [climate models](#) suggest the possibility of SSTs reaching the La Niña threshold (below $-0.8\text{ }^{\circ}\text{C}$) by October. The remaining 4 models suggest a continuation of ENSO-neutral throughout the forecast period.

La Niña WATCH
ENSO Outlook

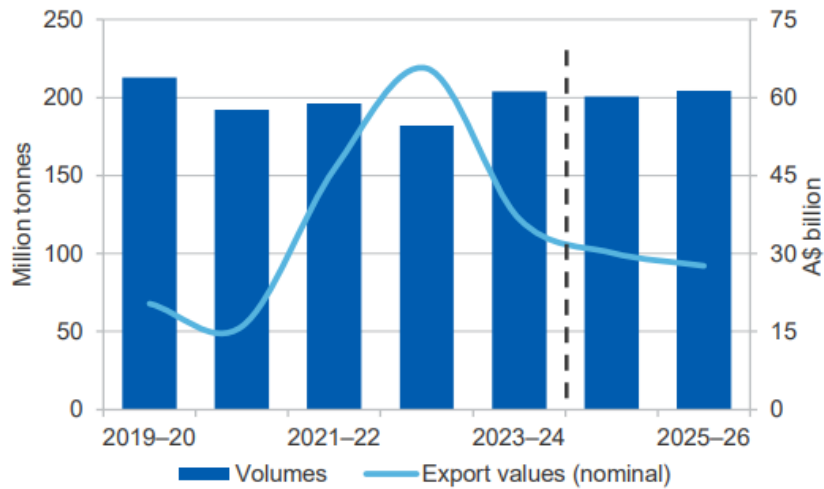
Project pipeline and exploration

- There are currently **10 coal committed projects** in Australia, valued at AUD\$4.56 billion.
- Exploration spending remains high.
- In 2023, coal **exploration** expenditure increased to \$322.3 million, 7.6% of all exploration spend (ABS).

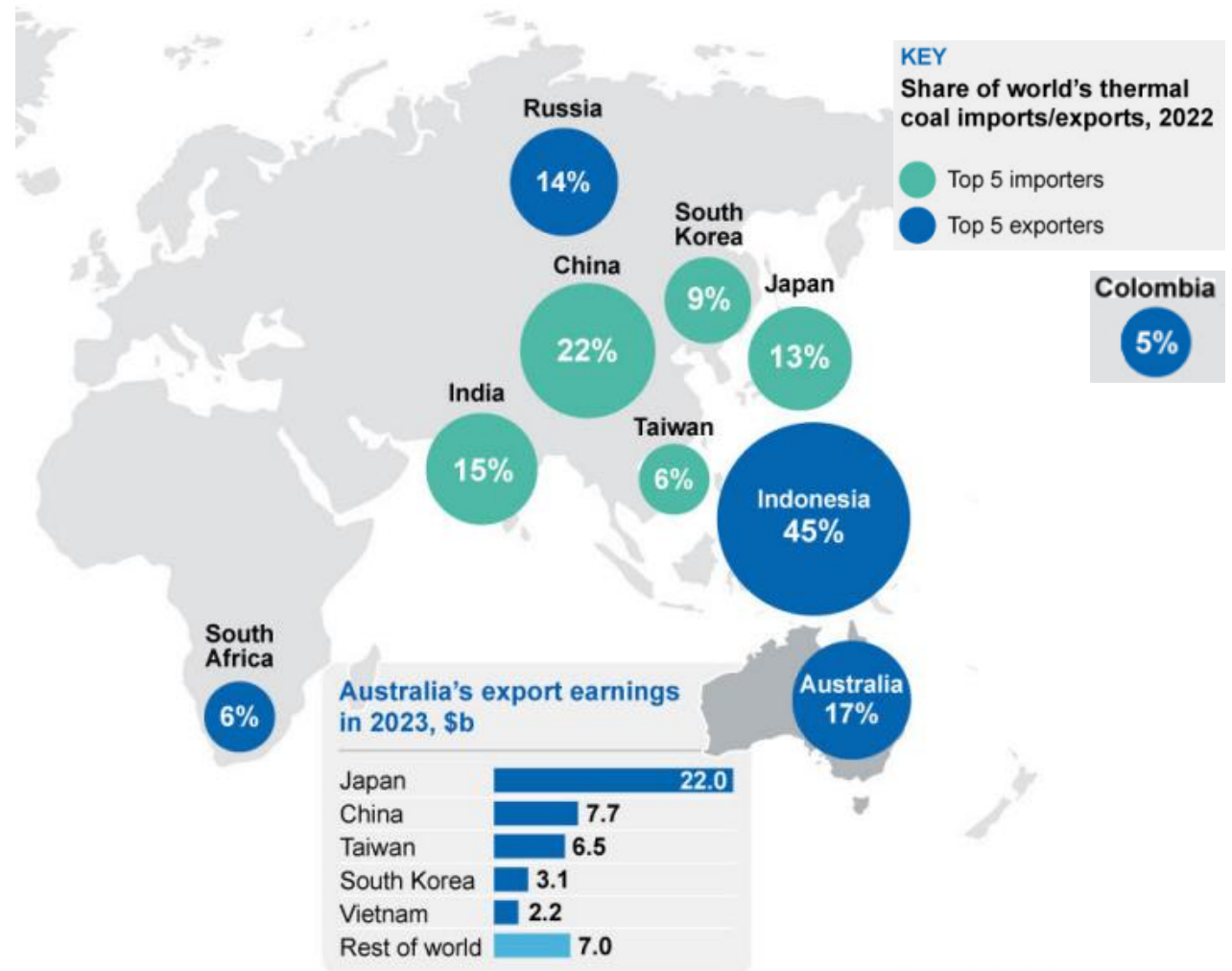
Project	Company	State	Annual Estimated New Capacity (mt)	Resource
Bulga Optimisation Project mod 3 and Bulga Underground mod 7	Glencore	NSW	6.6	Thermal and metallurgical coal
Hillalong	Shandong Energy Group	QLD	4.2	Thermal and metallurgical coal
Isaac Plains Complex (Isaac Downs)	Stanmore Coal	QLD	n/a	Metallurgical coal
Mandalong Southern Extension	Centennial Mandalong Pty Ltd (Banpu PCL)	NSW	n/a	Thermal coal
Maxwell Underground Mine	Malabar Coal	NSW	4.7	Metallurgical coal
North Goonyella	Peabody	QLD	5	Metallurgical coal
Vickery	Whitehaven Coal	NSW	8	Thermal and metallurgical coal
Wallarah 2	Korea Resources Corp / Sojitz Corp	NSW	4	Thermal coal
Wilkie Creek	New Wilkie Energy	QLD	4	Thermal coal
Wilton-Fairhill	Futura Resources	QLD	3	Metallurgical coal

Australia is the second largest exporter of thermal coal

- Values expected to decrease, but volumes stable to 2025-26.
- Japan was Australia's biggest export destination for thermal coal in 2023.
- In 2023, Australia exported 202.2 Mt of thermal coal, including 70.6 Mt to Japan (35%).



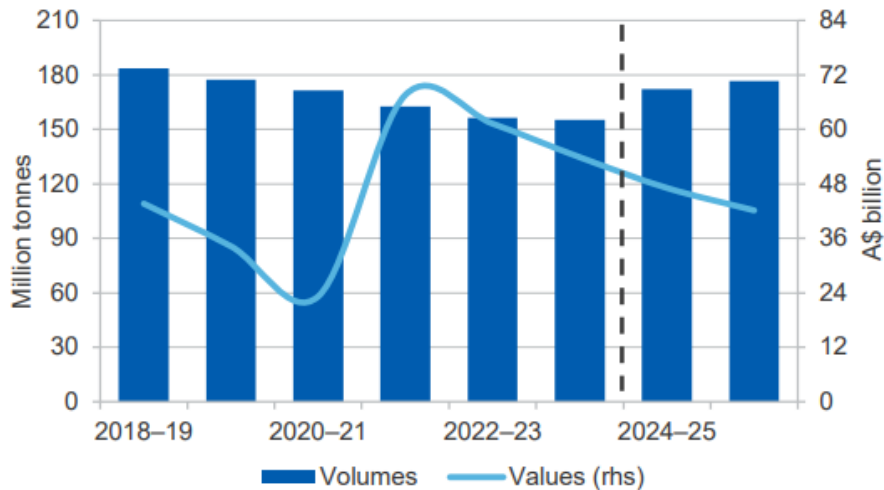
Source: ABS (2024) International Trade, Australia 5454.0; Department of Industry, Science and Resources (2024)



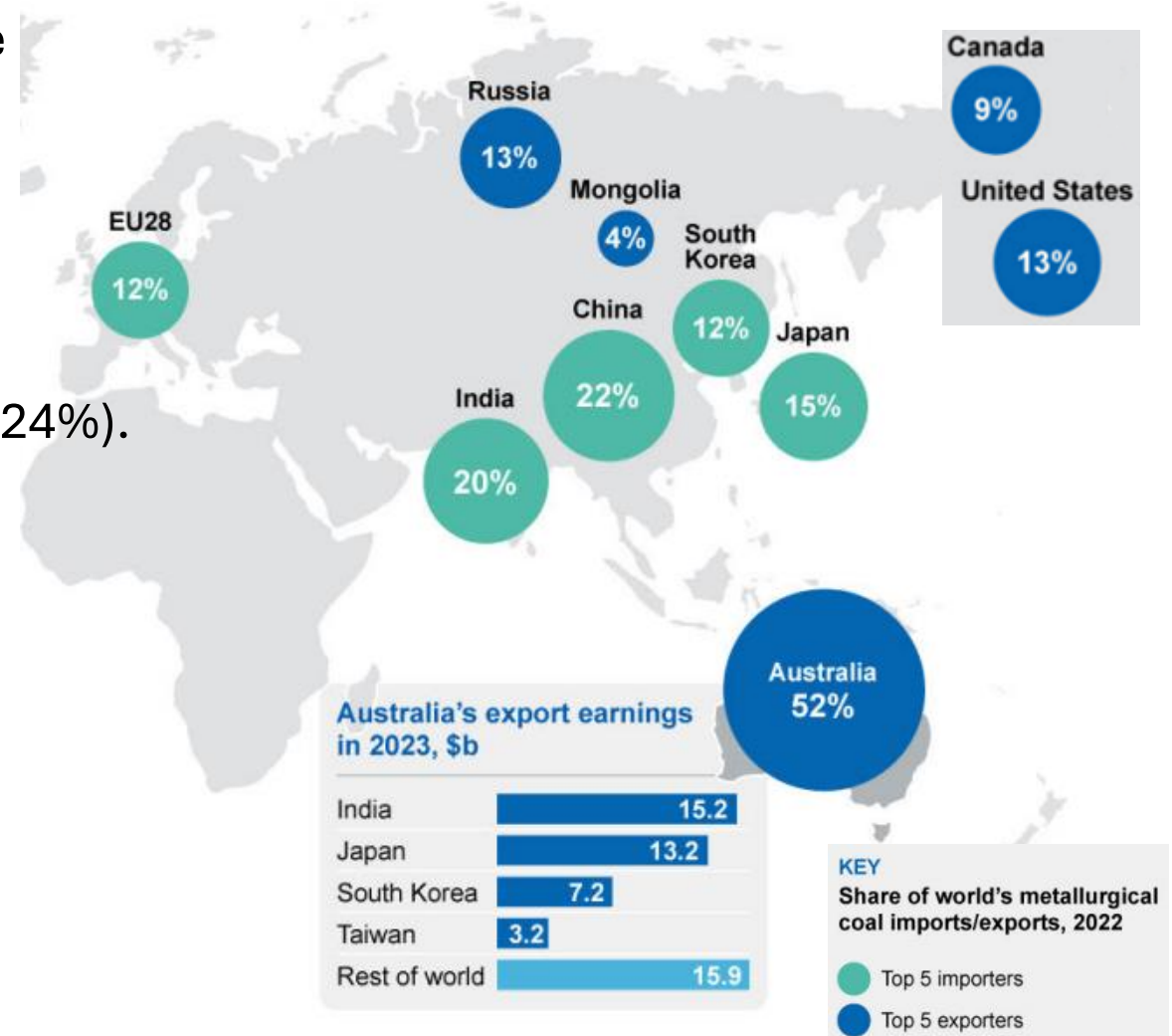
SOURCE: IEA; ABS

Australia is the world's largest metallurgical coal exporter

- Also expect value of exports to decrease, while volumes increasing to 2024-25.
- Japan is Australia's second biggest export destination, after India.
- In 2023, Australia exported 151.3 Mt of metallurgical coal, including 36.6 Mt to Japan (24%).



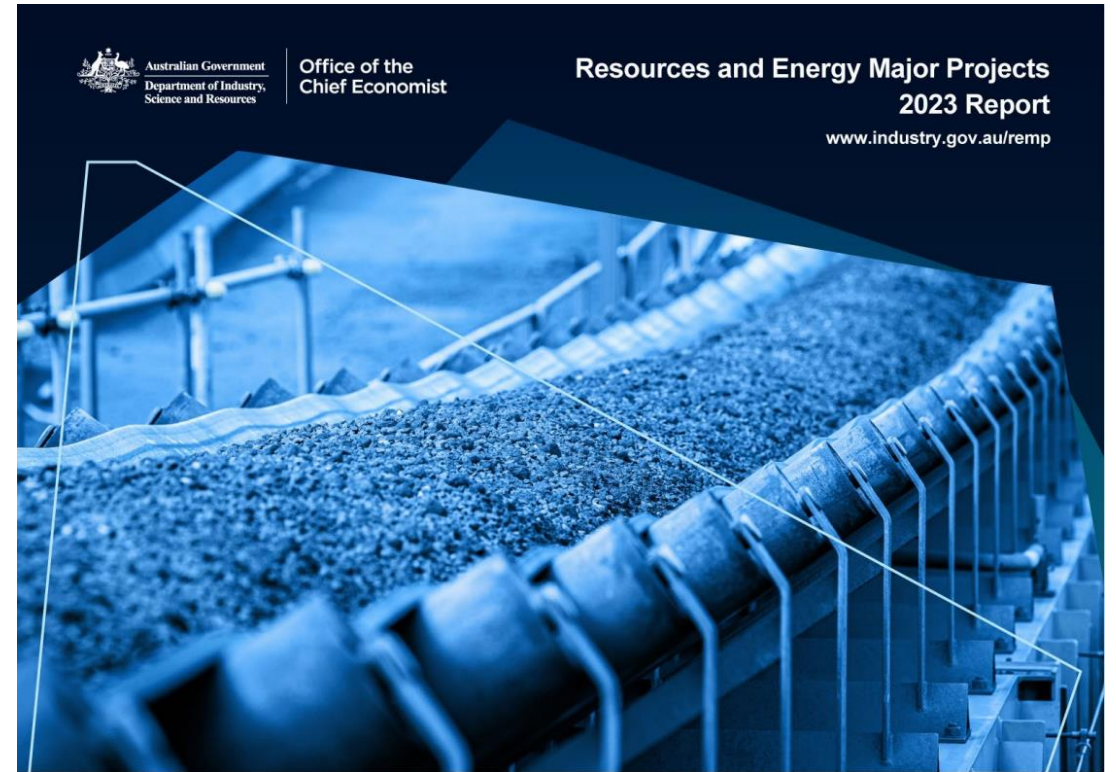
Source: ABS (2024) International Trade, Australia 5454.0; Department of Industry, Science and Resources (2024)



Australian coal industry



Resources and Energy Quarterly, 4 times per year



Resources and Energy Major Projects, 1 time per year

Coal Policy

State and Federal responsibilities

Constitutional responsibilities

- Australia is a Federation of States which each have their own constitution, government and laws.
- The Commonwealth has exclusive powers for some matters (States cannot make laws).
- The Commonwealth and states have concurrent powers (both can make laws).
- States can make laws over matters not specifically listed in the Constitution of Australia.

	Federal	State
Mining rights		Grant and regulate exploration and mining titles
Taxation/Royalties	Income tax/Corporate tax	Royalties
Environmental approvals	Matters of National Environmental Significance	Management of contaminated land, protection of threatened species, water rights, pollution and waste disposal, and rehabilitation
Emissions	Climate Change Act reporting and Safeguard Mechanism	State-level emissions reduction targets
Foreign Investment	Foreign Investment Review Board	

Coal mining policy in Australia

- The Commonwealth government does not operate, or invest in, coal mines.
- The Commonwealth government cannot direct any coal mine operators to produce or supply coal to a particular customer or country.
- There are many policies across the Commonwealth Government which impact on coal mining.
- The Commonwealth Government, as well as the New South Wales and Queensland Governments, are committed to remaining a reliable supplier of coal to Japan.



Meandu Mine, Queensland

Australia is committed to being a reliable energy supplier to Japan

Australia-Japan Ministerial Economic Dialogue Joint Ministerial Statement

October 2023

“Australia has committed to remaining a reliable supplier of resources and energy to Japan and the region now and into the future.

This applies to traditional energy commodities such as coal...”



Madeleine King MP, Australian Minister for Resources

January 2024

“It is clear we will need more mining and resources, not less, to meet net zero objectives... As we move into the future, we want to **deepen our resources trading relationship** with Japan.

This includes, of course, continued development and investment in traditional resources like iron ore and also **metallurgical coal**, the two vital inputs for steel”

Australia is committed to being a reliable energy supplier to Japan

Australia understands each country has their own pathway to net-zero and constraints to uptake of lower emission alternatives to thermal coal.

“ I assure you that **Australia will remain a reliable supplier of energy resources to Japan** and the region as we work together to achieve our net zero objectives”

Madeleine King MP, Australian Minister for Resources
January 2024



Australian coal use and energy policy

Australia's energy transition

- Australia is committed to **decarbonising our domestic energy generation** sector while remaining a **reliable supplier of coal to our international** partners.
- Australia has committed to **82% renewable electricity** in the national electricity system **by 2030**.
 - The government has not mandated how this will be achieved, but the policy will help manage the exit of ageing coal generation.
 - The Australian Energy Market Operator's **(AEMO) Integrated System Plan (ISP)** provides an indication of what the East Coast of Australia may look like in 2030.

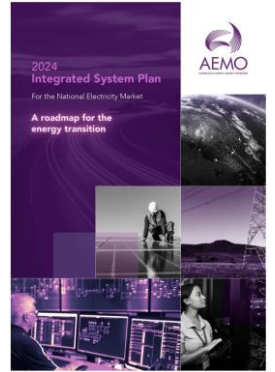
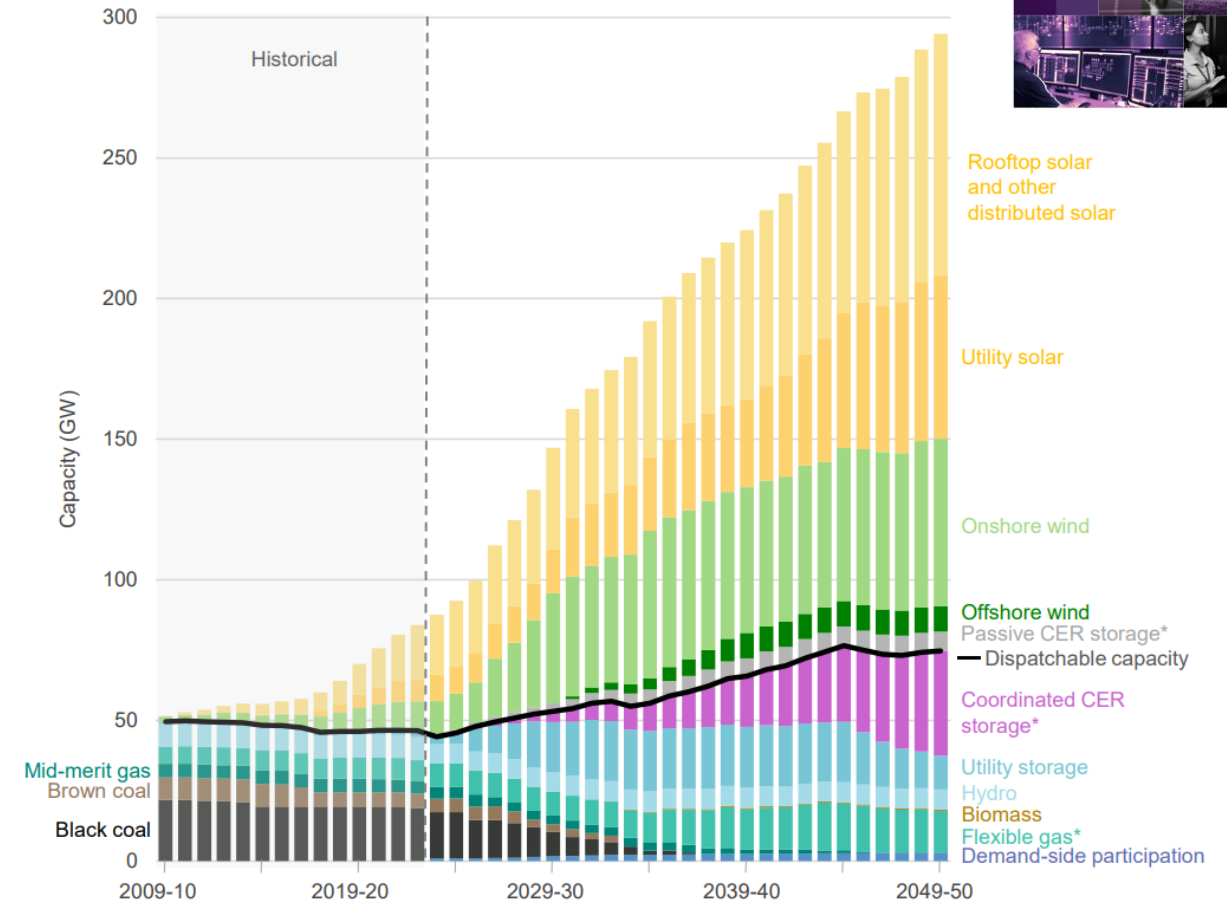


Figure 2 Capacity, NEM (GW, 2009-10 to 2049-50, Step Change)



Notes: "Flexible gas" includes gas-powered generation and potential hydrogen capacity. "CER storage" means consumer energy resources such as batteries and electric vehicles. Projections for "Rooftop solar and other distributed solar" and "CER storage" are forecast based on unit costs, consumer trends and assumptions about payments received to participate in the electricity market.

Australia's emissions reduction policies

Australian emissions reduction targets

- **Australia (Commonwealth) has legislated emissions reductions goals** in the *Climate Change Act 2022*.
- These goals commit Australia to:
 - Reduce greenhouse gas emissions to **43%** below 2005 levels by **2030**, and
 - Achieve **net zero emissions by 2050**
- The **NSW and QLD State Governments** have recently announced new Emissions Reduction Targets:
 - NSW – 70% reduction by 2035
 - QLD – 75% reduction by 2035



Climate Change Act 2022

No. 37, 2022

Compilation No. 1

Compilation date: 12 April 2023

Includes amendments up to: Act No. 14, 2023

Registered: 2 May 2023

Net Zero 2050 Plan and the Safeguard Mechanism

Net Zero Plans:

- The Australian Government is currently developing a **Net Zero 2050 Plan**, which will set out how Australia will reach net zero by 2050.
- The government is preparing six **sectoral decarbonisation plans**.
 - The decarbonisation plan for the **resources sector** will consider if further measures to address coal mine methane emissions are required.

More: <https://www.dcceew.gov.au/climate-change/emissions-reduction/net-zero>

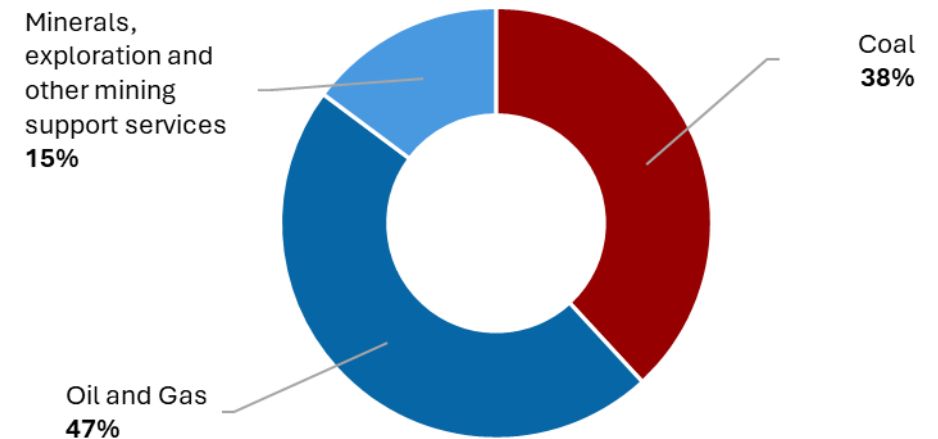
Safeguard Mechanism:

- Will drive emissions reductions at Australia's largest industrial facilities, including coal mines, gradually and predictably.
- Sets legislated emissions targets (baselines) on the net GHG emissions of covered facilities.
- Facility baselines are production-adjusted to avoid penalising economic growth.
- Baselines for new facilities (including coal mines) are set based on international best practice, adapted for an Australian context.
- Facilities have access to flexible compliance options: Australian carbon credit units can be used to offset emissions.

Australia will reduce coal sector emissions and remain a reliable investment destination

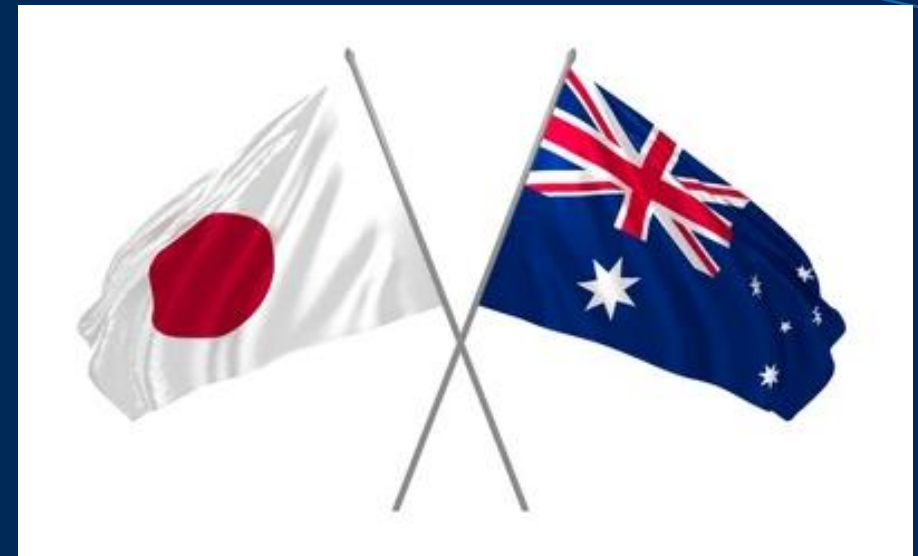
- Emissions from coal mining will be a focus of the Australian Government's *Resources Sectoral Decarbonisation Plan*.
- Fugitive (methane) emissions are a key challenge:
 - Australia is well placed to undertake research and development and implement solutions.
- Governments at all levels have made investments:
 - **Queensland:** \$520 million for *Low Emissions Investment Partnerships (LEIP)*.
 - **New South Wales:** Contributed \$15 million to a VAM Pilot project at Illawarra Metallurgical Coal, near Wollongong.
 - **Commonwealth:** \$10 million *Resources Methane Abatement Fund (RMAF)*.

Resources sector emissions by sub-sector



Conclusion

- The Australian Government knows how important coal is for Japan's manufacturing and energy security.
- We are committed to remaining a reliable supplier of coal.
- Australia's coal sector is internationally competitive.
- It will always operate to the highest safety, environmental and ethical standards.
- Decarbonising coal extraction (mining) will be an important focus for the sector in the coming years.



Further information

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