Australian Government
Department of Climate Change, Energy, the Environment and Water

Australia's Strategy for Transition towards Net Zero Emissions

8th IEEJ/APERC International Energy Symposium: Session 3

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Australia's Emissions Reductions Targets

Australia is committed to achieving the Paris Agreement's goals, including the target to keep the increase in global temperatures to 1.5 degrees above pre-industrial levels.

Updated Nationally Determined Contribution (June 2022)

- 43% reduction on 2005 levels by 2030
- Net zero emissions by 2050

The Climate Change Act 2022 (September 2022)

- Emissions targets enshrined in legislation
- Policy and investment certainty and Government accountability

Australia’s Climate Action (Energy)

Powering Australia Plan

- A suite of new climate and energy policies and measures to help Australia achieve it emissions reduction commitments

- Transforming Australia’s electricity supply (target of 82% renewables by 2030)
  - Rewiring the Nation Fund (A$20 billion)
- Development of low emissions industries, decarbonization of existing industries, transition of workforce
  - Powering the Regions Fund (A$1.9 billion)
  - Safeguard Mechanism
- Decarbonising Australia's transportation network
  - Driving the Nation Fund (A$500 million)
  - National Electric Vehicle Strategy

National Energy Transformation Partnership

- A framework for national alignment and cooperative action by governments to support the smooth transformation of Australia’s energy sector

Australia's Renewable Energy Ambition

Vision to become a renewable energy powerhouse

- Powering Australia's economy with renewable energy and creating new industries for renewable energy export
- Leveraging Australia's abundant renewable energy resources, highly skilled workforce, reputation as a trusted and reliable energy partner, and proximity to key markets
- Focusing on developing clean energy supply chains for
  - Hydrogen;
  - Renewable energy-embedded products such as green iron, steel, alumina and aluminum
  - Raw and processed critical minerals for clean energy technologies;
  - Clean energy engineering and consulting services

Electricity Generation Costs

Solar PV and onshore wind are already the cheapest forms of electricity generation in Australia.

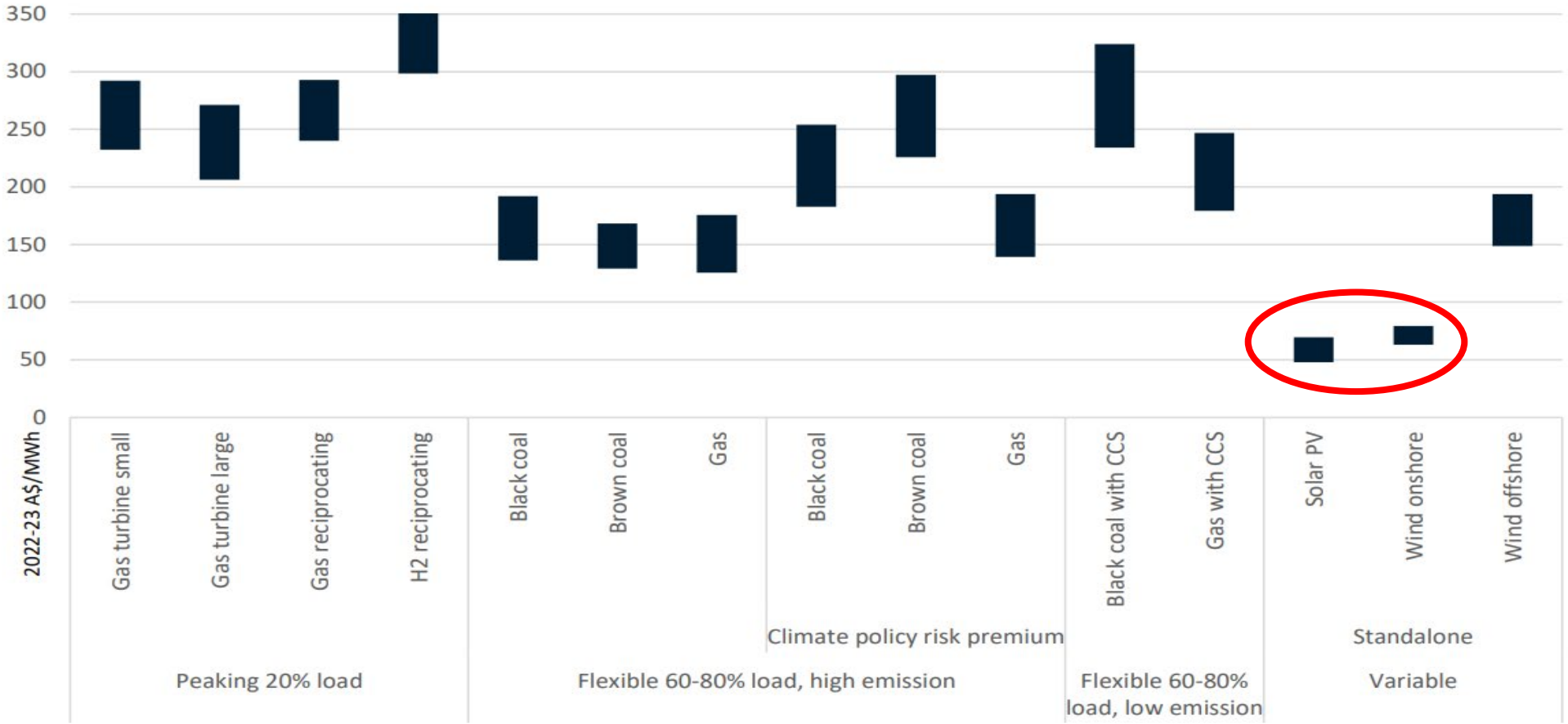

Figure 5-3 Calculated LCOE by technology and category for 2022

Source:

CSIRO Report GenCost 2022-23 (draft)

EP2022-5511.pdf

Investment in Clean Energy Technology

Investment in clean energy through the Australian Renewable Energy Agency (ARENA) and Clean Energy Finance Corporation (CEFC)

- Grant funding for projects from applied research through to pre-commercial deployment
- Focused on finding and demonstrating technology solutions that reduce technical and commercial risks and improve Australia's knowledge and expertise
- A$2.04 billion invested over 10 years in 653 projects with a value of A$9.06 billion

- Debt and equity funding to promote investment in clean energy technologies
- Through direct investments attracting private sector finance, as well as indirect investments through the provision of wholesale debt facilities
- A$11.7 billion invested over 10 years through 285 direct transactions and over 46,000 small scale aggregate investments with a total project value of over A$42 billion

Establishing the National Reconstruction Fund (NRF)

- The Australian Government has committed A$15 billion to fund the NRF, which will provide finance for projects that diversify and transform Australia's industry and economy.
- The NRF includes up to A$3 billion for renewables and low emissions technologies, and $1 billion for value-adding in resources. The NRF was legislated earlier this year.

Low Emissions Technologies

Hydrogen and its derivatives

- Substantial pipeline of over 100 planned or operational hydrogen projects, valued collectively at over A$127 billion
- Over A$500 million in support for the development of hydrogen hubs across Australia
- Progressing towards becoming a major global producer and exporter

Electric vehicles

- Establishing electric and hydrogen cell vehicle infrastructure and supporting access to those vehicles

Green metals

- As a major producer/export of iron ore and steel, there is opportunity for Australia to demonstrate green metal production and accelerate decarbonization with partners

Guarantee of Origin (GO) Scheme

Australia is developing an internationally aligned domestic GO scheme to build global export markets for our products.

- The Scheme will provide transparency and assurance over attributes of production, transport and storage; including information on
  - Emissions intensity
  - Energy source
  - Production technologies
- Initially for hydrogen, hydrogen energy carriers and renewable electricity only, but will expand to include metals, biofuels and others
- Aligned with IPHE's work on carbon accounting methodologies
- Methodologies tested in Australia through GO trials

Carbon Capture, Use and Storage (CCUS)

Australia's pragmatic approach to emissions reduction

- Long standing investor in CCUS –
  - Founding member of the Global Carbon Capture and Storage Institute
- New Carbon Capture Technologies Program
  - Prioritise hard-to-abate industrial sectors
  - Accelerate CO_2 removal and negative emissions technologies, e.g. Direct Air Capture (DAC)
  - Support research opportunities for institutions, industry and international partners
- Established CCUS policy and regulatory framework and ongoing work
- Member of Asia CCUS Network: knowledge sharing & deployment

International Cooperation – Bilateral Partnerships

8 formal bilateral partnerships on clean energy cooperation, including;

- Japan: Partnership on Decarbonisation through Technology
- Republic of Korea: Low and Zero Emissions Technology Partnership
- Singapore: Low Emissions Memorandum of Understanding and first-of-its-kind Green Economy Agreement
- India: Letter of Intent on New and Renewable Energy Technology

Examples of cooperation with other Asian countries;

- Indonesia: Establishment of a new A$200 million climate and infrastructure partnership
- Viet Nam: A$41 million support for commercial wind farm developments and a USD30 million loan to manufacture electric buses and roll out first national EV charging network

International Cooperation – Multilateral Fora

Australia is committed to strengthening and deepening international cooperation on clean energy, working through international fora to support the global transition to a net zero world

- Asian Zero Emissions Community (AZEC)
- Asia-Pacific Economic Cooperation (APEC)
- G20
- Quad (Japan, India, US, Australia)
- United Nations Framework Convention on Climate Change (UNFCCC)
- East Asia Forum
- Indo-Pacific Framework
- International Energy Agency
- International Solar Alliance
- Mission Innovation and the Clean Energy Ministerial

Thank you

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