

CCUS: A Net Zero Opportunity For Australia

“Reaching net zero will be virtually impossible without carbon capture, utilisation and storage” | International Energy Agency¹

Carbon capture, utilisation and storage (CCUS) is critical to reaching net zero in Australia.² CCUS can reduce emissions in hard-to-abate industries including cement, steel, chemicals and

fertiliser production and produce low-carbon hydrogen. It can also remove carbon dioxide from the atmosphere through Direct Air Capture (DACC).³

25+ year proven track record of safe, secure CCUS operations.

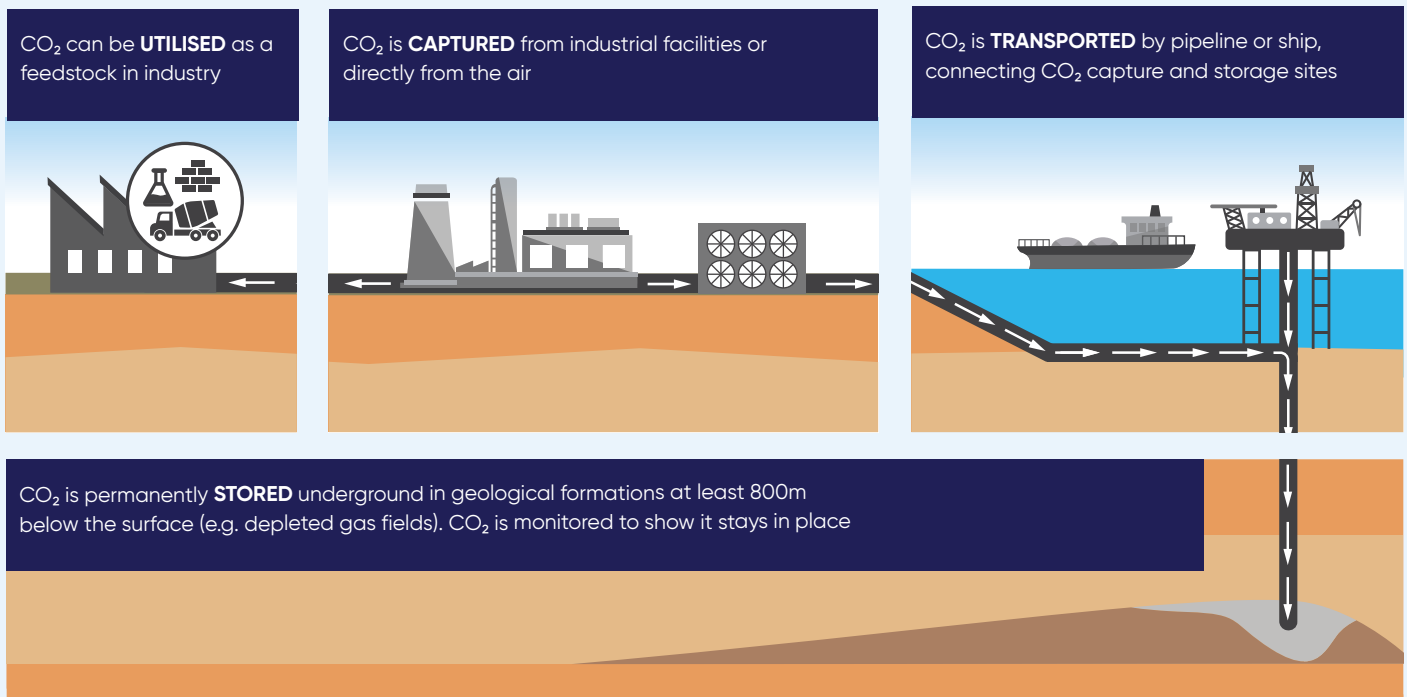
41 large-scale CCUS projects operate globally today, with the capacity to capture 49 million tonnes (Mt) of CO₂ per year⁴ – equivalent to over 10% of Australia’s total greenhouse gas emissions. The Sleipner CCUS project in Norway has been safely and permanently

storing 1 Mt of CO₂ per year since 1996.⁵ The importance of CCUS is recognised by the Australian Government,⁶ Geoscience Australia⁷ and the Commonwealth Scientific and Industrial Research Organisation.⁸

How does CCUS work?

CCUS involves the capture of CO₂ from industry or directly from the air. CO₂ is transported, via pipeline or ship, to where it can be safely and permanently stored

in a suitable geological formation, at least 800m below the ground. Some captured CO₂ can be used by industry, including in chemical and cement production.



Sources:

¹IEA, [Energy Technology Perspectives 2020 – Special report on CCUS](#), 2020

²Net Zero Australia, [Modelling Summary Report](#), 2023

³IEA, [Carbon Capture, Utilisation and Storage](#), website (accessed 18 June 2024)

⁴Global CCS Institute, [Global Status of CCS Report](#), 2023

⁵Equinor, [Sleipner area](#), website (accessed 18 June 2024)

⁶Department of Industry, Science and Resources, [Future Gas Strategy](#), 2024

⁷Geoscience Australia, [Carbon Capture and Storage \(CCS\)](#), website (accessed 18 June 2024)

⁸CSIRO, [Capturing global attention: Carbon capture, utilisation and storage](#), website (accessed 18 June 2024)

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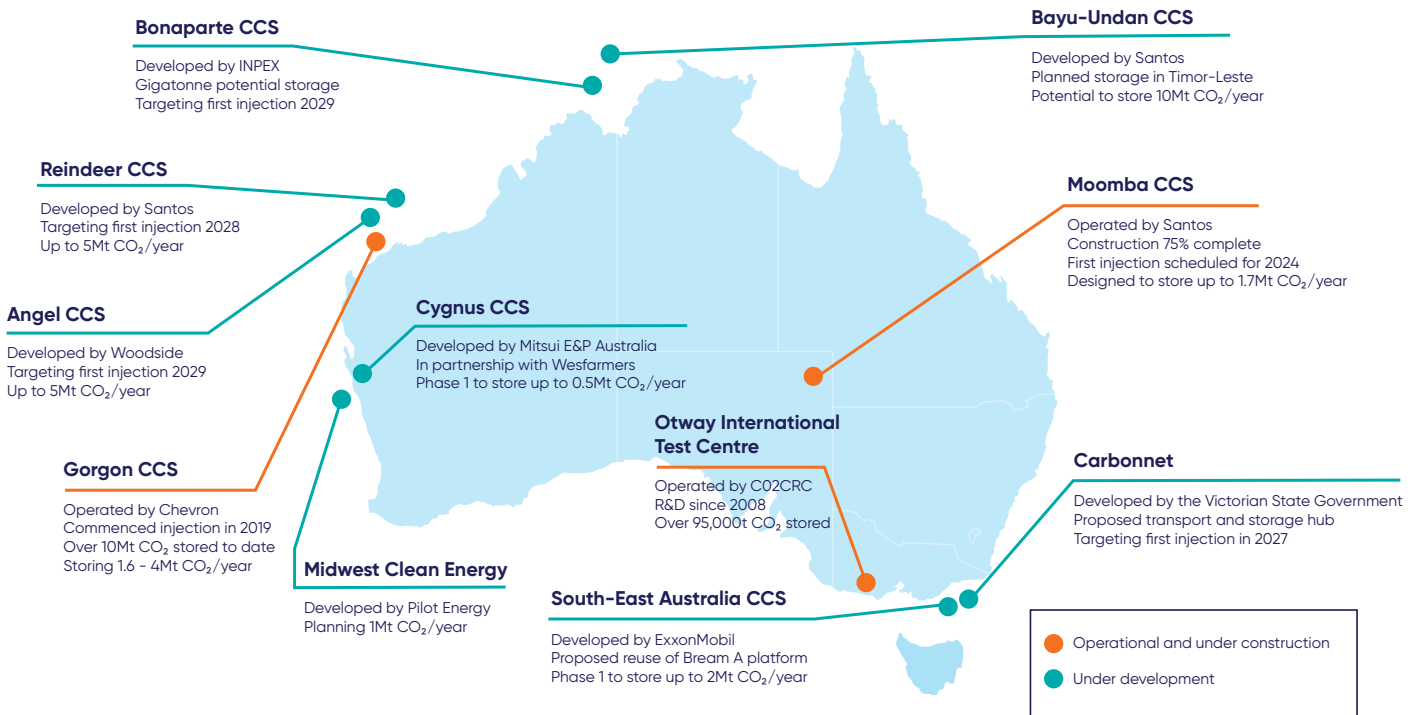


Australia is a global leader in CCUS, including hosting the world's largest CO₂ storage project.

The Chevron Gorgon CCS project in Western Australia is storing 1.6 Mt of CO₂ per year today, making it the largest climate-focused CCUS project in the world.⁹ The Gorgon project has stored over 10 Mt of CO₂ since 2019 – equivalent to taking more than 3 million passenger vehicles off Australia's roads for a year.

The Santos Moomba CCS project in South Australia is on-track to commence operation in 2024 and aims to store 1.7 Mt of CO₂ per year.¹⁰

Australia has a host of CCUS projects that aim to start operation by 2030.



The development of CCUS can foster Australian industry and manufacturing, attract investment, and support communities.

Net Zero Zones¹¹ that combine CCUS, renewable energy, low-carbon hydrogen, and natural gas, can fast-track emissions reductions, power regional manufacturing and industry and act as a magnet for investment – supporting communities and creating regional jobs.

Australia can help our trading partners decarbonise by transporting CO₂ from the region for permanent storage in Australia, at the same time creating a new multi-billion industry.¹²

Sources:

⁹ Chevron, [gorgon carbon capture and storage](#), website (accessed 18 June 2024)

¹⁰ Santos, [Moomba CCS progressing at pace and on track for 2024](#), website (accessed 18 June 2024)

¹¹ Australian Energy Producers, [A review of Net Zero Energy and Industrial Zones](#), 2023

¹² Chiang, S. [Can Australia become APAC's CCS hub of choice?](#), Australian Energy Producers Journal, 2024