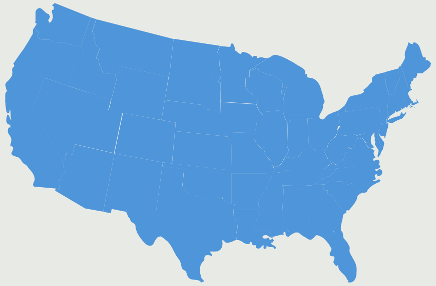
LETA

Low Emission Technology Australia

FECM / NETL Carbon Management
Project Review Meeting

Pittsburgh, PA
August 2024



• Size:	7,700,000 km^2	9,840,000 km^2
• Population:	27,362,891	336,861,096
• GDP:	A$2.68 trillion	US$27.36 trillion

• Top 5 Exports:

Commodity	Value
Iron Ore	A$120 Billion
Coal	A$83 Billion
LNG	A$71 Billion
Gold	A$24 Billion
Lithium	A$18 Billion

Commodity	Value
Oil	US$117 Billion
Aviation Parts	US$113 Billion
Gas/Fuel	US$113 Billion
LNG	US$68 Billion
Cars	US$63 Billion

Exchange: US$1 = ~A$1.5

Sources:
www.abs.gov.au
www.industry.gov.au
www.usa.gov

Australian Federal Policy

Safeguard Mechanism (SGM)

- Scheme sets annual emissions limits (baselines) for facilities emitting > 100,000 tCO_2-e
- Baselines are reduced 4.9% p.a. until 2030
- Safeguard facilities can offset excess emissions by purchasing ACCUs, or purchasing Safeguard Mechanism Credits (SMCs) from other facilities covered by this Safeguard Mechanism

Australian Carbon Credit Unit Scheme (ACCUs)

- Approved methods under the ACCUs scheme (including a CCS method) can earn 1 ACCU for 1 tonne of CO_2 stored (does not incl. capture). These can be sold to government or in a secondary market
- Government price cap is A$75/unit in 2023, increasing by CPI+2%, and to be reviewed in 2026/27)

Meeting Baseline Obligations	
ACCUs	SMCs
ACCUs ≠ on site capture ACCUs = storing emissions	SMCs ≠ storing emissions SMCs = onsite capture

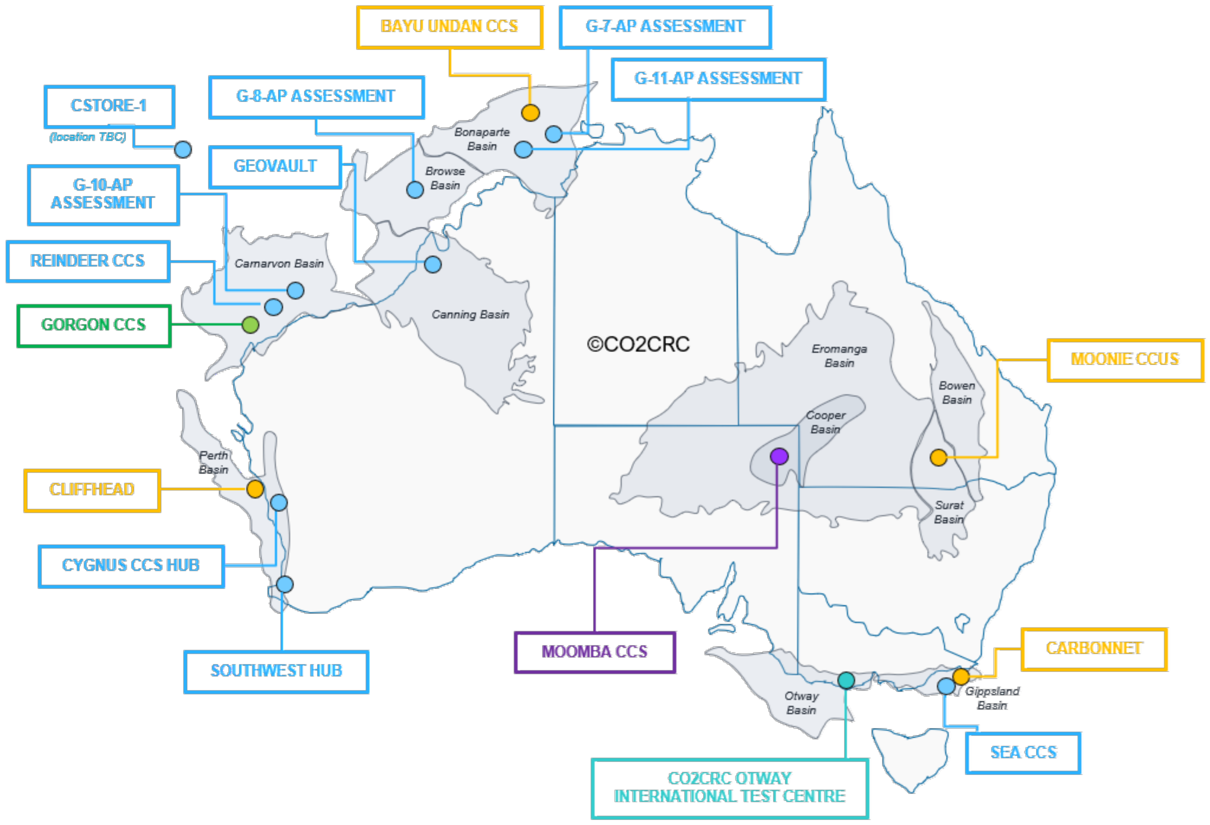
Source: GCCSI

CCS Projects in Australia – Geological Storage

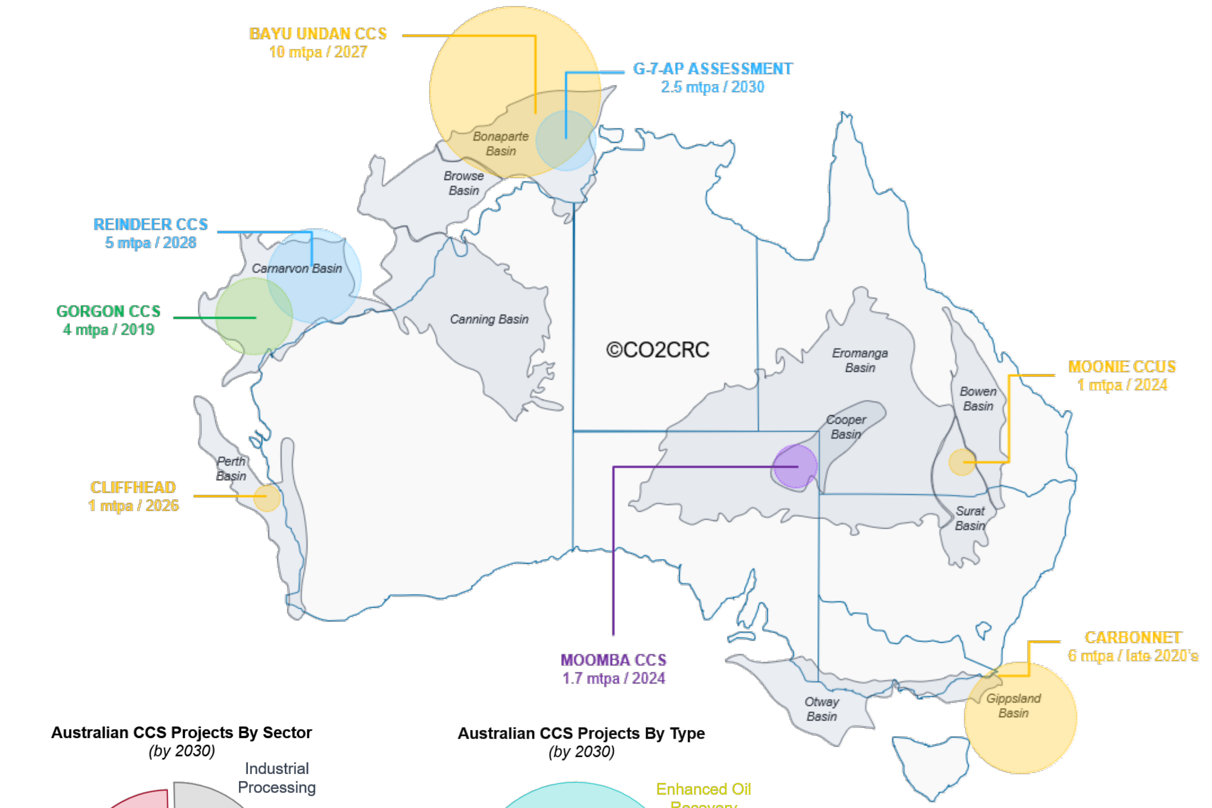
By 2030, ~32mtpa of CO_2 is projected for permanent geological storage in Australia.

1 operational project, and a further 16 commercial projects in the pipeline.

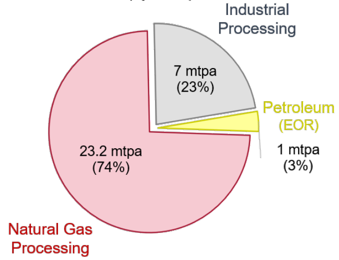
Today	By 2025	By 2027	By 2030
1.5 – 4 mtpa already being stored.	3 – 6 mtpa online.	~23 mtpa online.	~32 mtpa online.



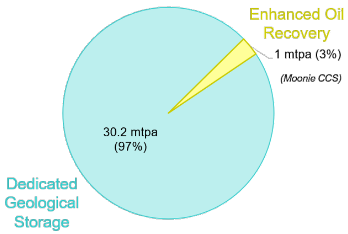
1	1	4	10	1
Operational Project	In Construction	Advanced Development	Early Development	Demonstration Facility
Since '19	*Online 2024*	*In/Completed FEED*	*Feasibility/ Assess*	*Since '08*



Australian CCS Projects By Sector
(by 2030)



Australian CCS Projects By Type
(by 2030)



Source: CO2CRC

State and Territory Government approach to CCUS policy

Western Australia

- Petroleum Legislation Amendment Bill (2023)
- WA CCS Hub Study
- $60 million to drive investment into new energy projects through its 'Investment Attraction Fund' (IAF) - offering funding for diverse projects (includes CCS).
- $4.3 Million towards a CCUS Action Plan – aiming to accelerate the deployment of CCUS
- Projects
  1. Gorgon CCS project (regulated under existing Western Australian legislation and the Barrow Island Act).
  2. CStore1 Project
  3. Cliff Head CCS Project (Mid West Clean Energy Project)
  4. Mid West Modern Energy Hub
  5. Burrup CCS Hub

South Australia

- Onshore petroleum and geothermal energy legislation regulates the storage of CO_2 in the State
- Consolidated 6 policies to streamline approvals
- Moomba CCS Hub

Northern Territory

- NTG Hub Study and Middle Arm Sustainable Development Precinct
- Targeting 50% reduction by 2030
- Middle Arm CCS Project

Victoria

- Regulation of CCS in the coastal waters is closely modeled on the Commonwealth Offshore Act
- Implemented onshore and offshore legislation
- Targeting 45 – 50 % reduction by 2030
- Projects
  1. CarbonNet Project
  2. South East Australia Carbon Capture Hub
  3. Otway Natural Gas Plant CCS
  4. Hydrogen Energy Supply Chain (HESC) Project

NSW & ACT

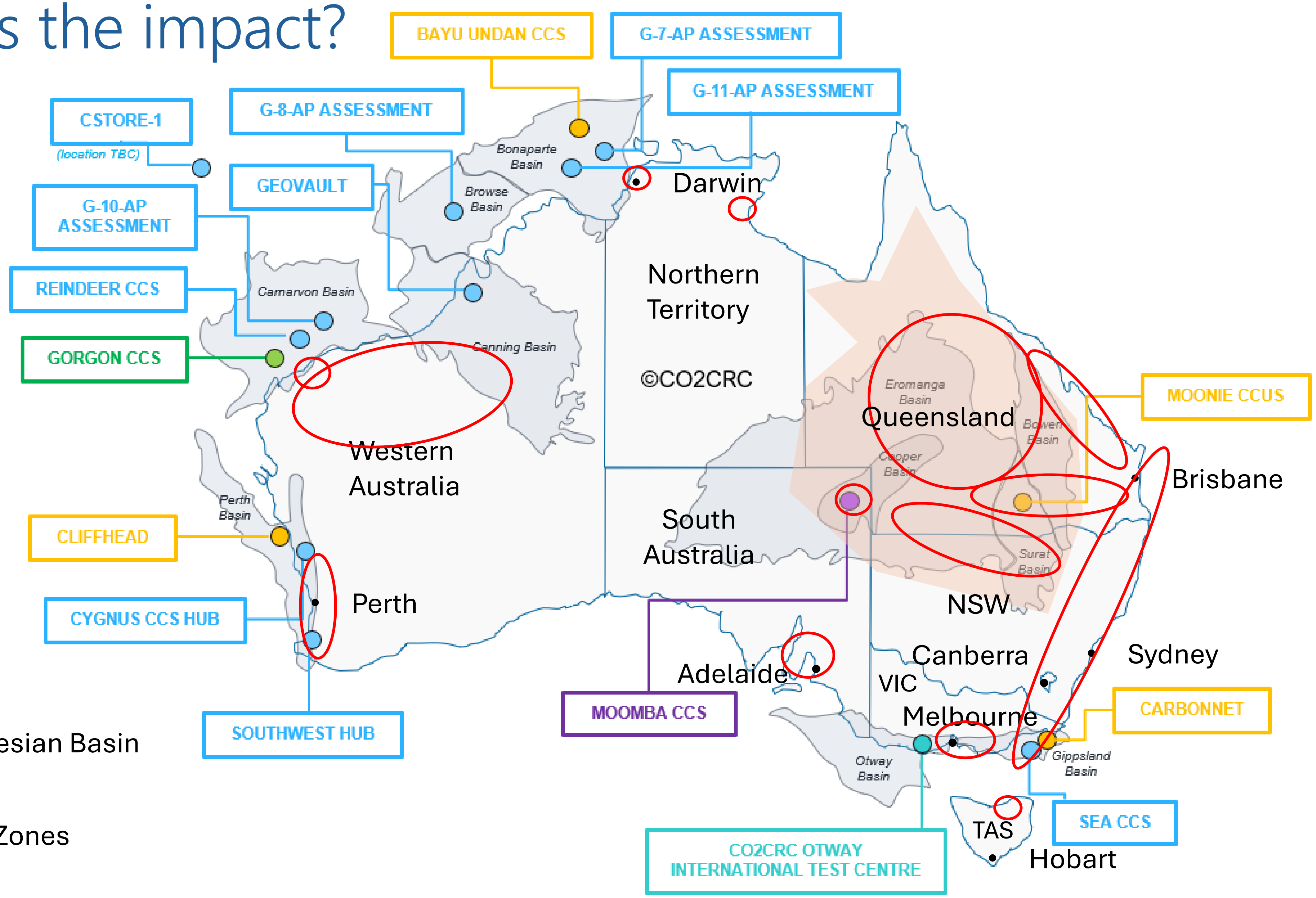
- New South Wales prepared bills to regulate CCS
- May be guided by Queensland legislation
- Targeting 65 – 70 % reduction by 2030

Queensland

- Greenhouse Gas Storage Act (2009)
- In June 2024, the Queensland Government introduced legislative changes banning GHG storage and injection activities in Queensland’s Great Artesian Basin (GAB)

All states and territories have committed to Net-Zero by 2050

What is the impact?



Great Artesian Basin

Emissions Zones

Low Emission Technology Australia (LETA)

What does LETA do?

INVESTMENT
Provide non-equity grant funding to accelerate the development of low-carbon emission and capture technologies.

DEPLOYMENT
Facilitating multi-industry project development, reducing investment risks, and encouraging industry participation

ADVOCACY
Influencing investment in technology through incentive-based policy.

COMMUNICATION
Growing awareness, understanding, and recognition of low emissions technologies and its role in a low-carbon economy.

ENGAGEMENT
Promoting collaboration across industries to establish emissions reduction at scale and faster.

What does that mean?

LETA has a mandate to accelerate the development and deployment of low emission technologies that address carbon management in the hard-to-abate industries that rely on coal.

HOW?

We provide non-equity co-investment to progress technological development and demonstration projects.

WHY?

First movers are at a significant disadvantage. They incur the financial, regulatory and operational unknowns that challenge project development. We aim to help de-risk these first movers as they tackle the valley of death.

IF ITS NON-EQUITY, WHERE IS THE RETURN ON INVESTMENT?

We are a Not-For-Profit organisation. Think of it as a grant. All we ask for are the (non-IP related) learnings that can be shared more broadly.

Areas of investment focus:

Fugitive GHG Abatement

- Ventilated Air Methane
- In seam pre-drainage
- Post-drainage
- Waste gas utilisation

Hard to abate Capture

- Thermal Energy generation
- Steel Manufacturing
- Cement Manufacturing
- Industrial smelting

CO_2 Storage

- Geological sequestration
- Depleted field storage
- Novel approaches

Secondary value chains

- Hydrogen Production
- Ammonia Production
- Large scale utilisation
- High demand byproducts

Carbon Stewardship

- International carbon management value chain
- CO_2, H_2 & NH_3 midstream infrastructure in key markets

Pertaining to the coal value chain

So why am I here?

LETA works to strengthen alliances with Australia's international partners and trading customers through investment and technological development.

The US is at the cutting edge of innovation in addressing global carbon management challenges.

The people in this room and at this conference are leading that charge. We need your help

Please come and find me if you would like to learn more or discuss any relevant project opportunities you may have.

Benn Wheeler
Director
Business Development
+61 406 998 082

benn.wheeler@letaustralia.com.au