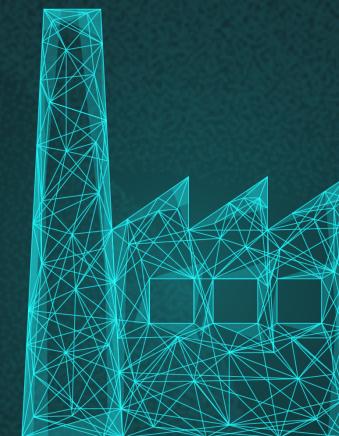




LETs MAKE INDUSTRY CLEANER

LETA Low Emission
Technology
Australia



A low emission future for coal through investment in CCUS and new technologies

Mark McCallum, LETA CEO

35th Clean Coal Day International Symposium

Tokyo – 3 September 2026



Who is LETA?

LETA was established by Australia's black coal producers in 2006 to accelerate the development and large-scale deployment of technologies to reduce and remove greenhouse gas emissions from critical industries like steel, cement and power generation.

Since it began, LETA has committed more than \$450 million and leveraged a further \$850 million in co-investment. Together, this represents more than \$1.2 billion supporting technologies that drive cleaner ways to mine, make and build.

LETA's work supports breakthrough ideas, world-first demonstrations, and partnerships across industry, academia, and government in Australia and around the world.

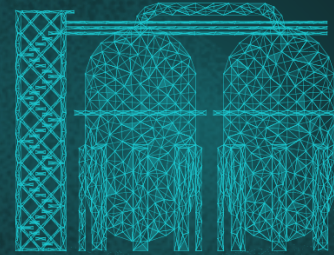
LETA's focus reduces the costs of emission reduction



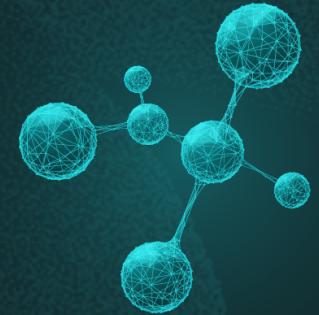
Reducing emissions from
resource extraction
and mining operations



Large-scale carbon
capture hubs



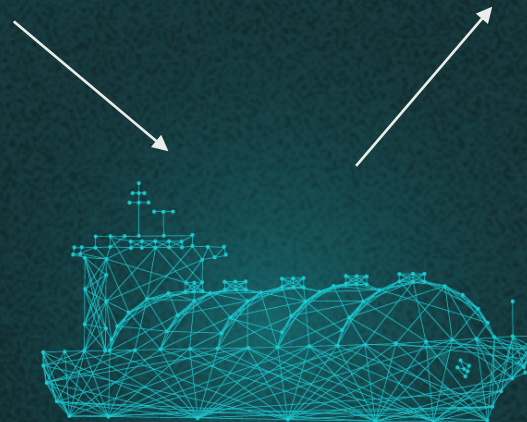
CO₂ utilisation



Compression of captured
CO₂ for permanent
and safe storage



Enabling near-zero emission on-demand
power generation and clean fuel
technologies like hydrogen, using
coal, natural gas or biomass



Transport of captured CO₂
to carbon storage sites

LETA's project portfolio

A diverse portfolio driving cleaner ways to mine, make and build

Technology Area	Representative Projects	Current Focus
Fugitive Emission Abatement	• Anglo RTO VAM Abatement Project • Mining3 VAM Catalyst Catch4 Project • Open Cut In-Pit Methane Drainage Trial • Open Cut Fugitive Emission Project	Demonstrating large-scale fugitive abatement technologies for open cut and underground mining operations
Carbon Capture	• KC8 PACER Cement Carbon Capture • Kawasaki Solid Sorbent Carbon Capture • POSCO Steel Capture • GTI Rota-Cap Centrifugal & Modular Steel	Advancing next-generation capture technologies across cement, steel and power applications
CO₂ Transport, Storage & Utilisation	• NSW CO₂ Storage Assessment Project • CO2CRC Otway Stage 4 • SGC Coal2Carbon	Assessing geological storage potential to enable future CCS deployment and funding ways to convert captured CO ₂ into value added products

LETA's strategic study portfolio

Technology Area	Representative Studies	Current Focus
Integrated CCUS	APAC CCUS Hubs Study	Collaborating industry-led consortium study to assess the pre-feasibility of CCUS for hard-to-abate sectors. Exploring potential hub-based approach through the APAC region
Clean fuels	JPower Gasification Trails Asian Ammonia Study	Exploring opportunities for Australian coal to be part of the solution to provide large scale clean fuels such as ammonia and hydrogen to our trading partners
CO ₂ Transport & Storage	Carbon Recycling Fund	Supporting the Carbon Recycling Fund as it supports research, development and deployment of a large range of novel CO ₂ utilisation technologies

LETA's Investment Strategy

Three key components:

Reducing emissions across the supply chain:

Investment in technologies to reduce Australian direct (Scope 1) emissions from coal mining, reducing the carbon content of Australian coal before it is exported.

Supporting export and emissions reduction for Australian customers:

With Australia's major export markets having their own emission reduction targets, LETA is investing in new technologies and partnerships to help Australian resource customers reduce their emissions.

Fostering international collaboration:

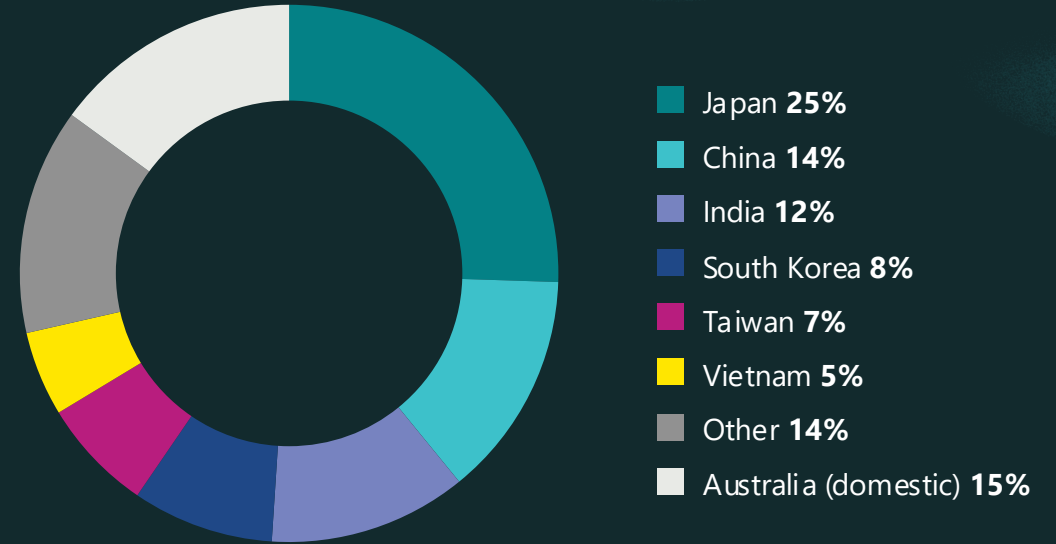
Collaborating on technology development and deployment to support Australia's emission reduction commitments while ensuring a future for critical industries and trade relationships.

We are driving cleaner ways to mine, make and build – through coordinated industry, technology and shared infrastructure systems that enable emissions reduction at scale.

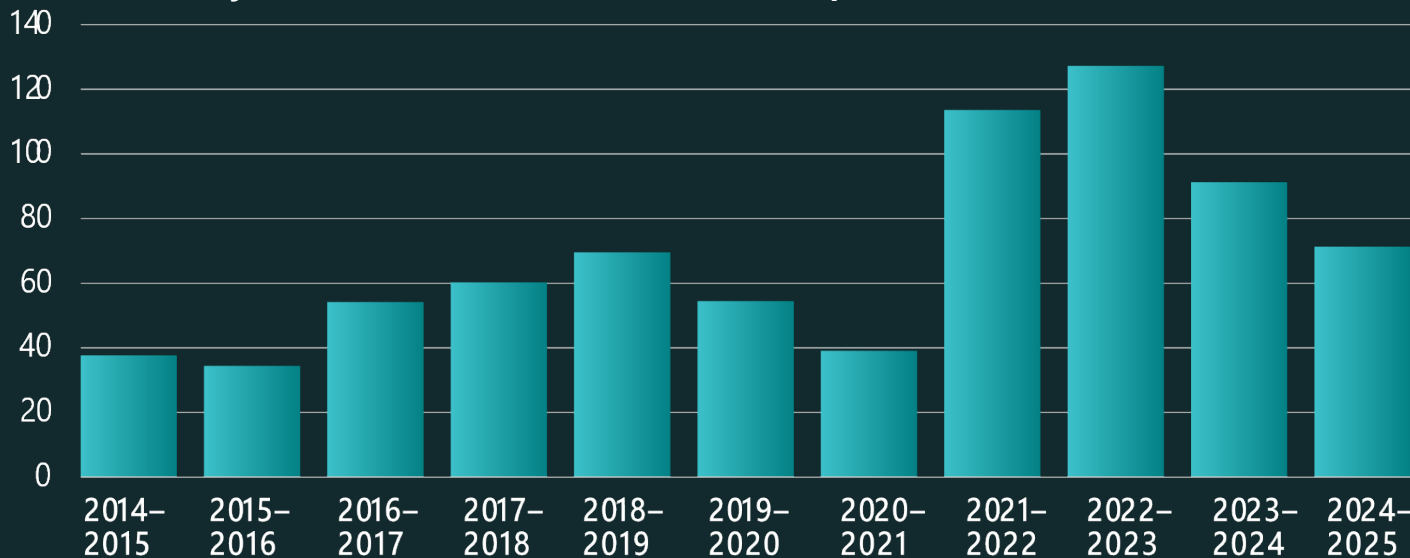
Why drive cleaner ways to mine, make and build?

“Carbon stewardship”

Australia’s major coal markets all have their own emission reduction targets. LETA is supporting new technologies and partnerships to help customers in Australia and overseas to reduce emissions from the use of Australian coal in critical industries like steel, cement and power generation.



10-year value of Australian coal exports (\$b)



Australian coal exports by destination (2023)

LETA's international focus

Why we collaborate with Japan, Korea and the US (amongst others).

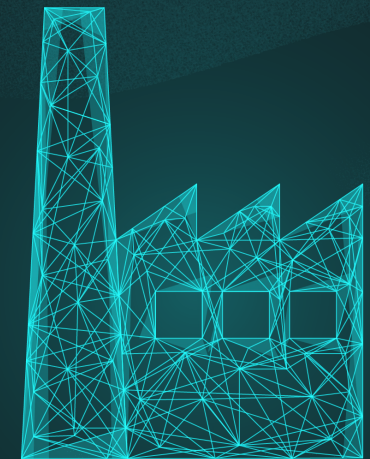
- Long-term customers of Australian energy and resources, with large industry base reliant on coal.
- Strong national commitment to CCUS and clean fuels.
- Growing CCUS ambition and international partnerships.
- Advanced CCUS innovation and deployment.
- Proven commercial and policy models.

Why this matters to LETA

- Drives demand for regional CO₂ transport, storage and shared infrastructure.
- Strengthens Australia's role in a regional carbon management ecosystem.
- Accelerates technology readiness and reduces first-of-a-kind risk for industries that rely on coal.

Japan Collaboration

LETA works with Japanese industry, government and research organisations to advance practical, scalable pathways to emissions reduction.



Project demonstration

IGCC and Cleaner Power

J-POWER | Hiroshima

- IGCC testing of multiple Australian coal samples to support cleaner power generation and explore the potential for hydrogen production in Japan.

Capture cost reduction

Kawasaki Heavy Industries (KHI) | Kobe

- Solid sorbent carbon capture technology development aimed at reducing operating costs and improving deployment economics.

Research partnerships

Coal-to-hydrogen with CCS

Electric Power Research Institute (EPRI)

- Technical modelling underpinning coal-to-hydrogen with CCS pathways for Japan, aligned with carbon intensity and energy security requirements.

Circular carbon and CO₂ utilisation

Carbon Recycling Fund Institute (CRF) | Tokyo

- LETA was the first foreign supporter helping fund the CFR, converting captured CO₂ into fuels, chemicals, and construction materials.

Korea Collaboration

LETA works with Korean utilities, manufacturers and research organisations to advance practical, scalable emissions reduction pathways for emissions-intensive industries.

Project demonstration

Industrial carbon capture and utilisation deployment

POSCO | SGC Energy

- Heads of Agreement supporting development of emissions-reduction and carbon utilisation technologies at operating steel and power facilities.

CO₂ transport and hub-based storage models

Hyundai Steel | Regional Consortia

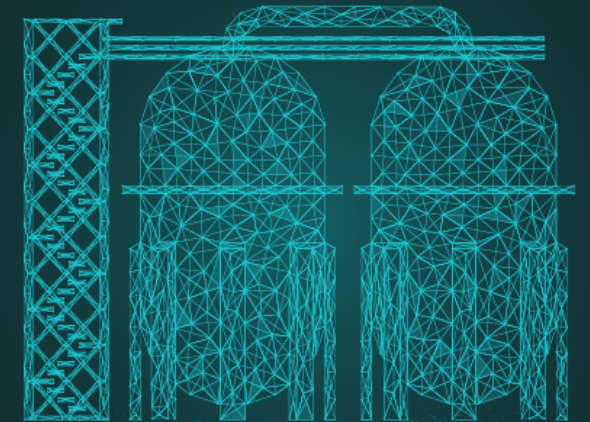
- Feasibility studies exploring shared CO₂ transport, shipping and CCS hub development across the Asia-Pacific.

Research partnerships

Low-emission fuels for power generation

KEPCO | Electric Power Research Institute (EPRI)

- Assessment of ammonia as a lower-emission fuel option aligned with Korea's energy security and emissions reduction objectives.



LETA's Collaboration Model

LETA's collaboration model integrates stakeholders across the world to accelerate shared infrastructure and scalable industrial emissions reduction.



Multi-Country Project Collaboration

- Joint feasibility studies involving manufacturers, utilities, and technology providers across APAC and the US.
- Shared technical modelling and research informing deployment pathways in multiple jurisdictions.
- Cross-border engagement on CO₂ transport, shipping and hub-based storage models.



Industry and Research Networks

- Collaboration spanning industrial operators, research institutions, policy stakeholders and investors.
- Knowledge transfer between demonstration projects and emerging markets.
- Alignment of technology development with energy security and trade relationships.
- LETA's Associate Membership includes US-based organisations, with strategic expansion underway across Asia-Pacific markets.



2026 Highlights and Reflections



Expanded project portfolio

- 15 active projects and supporting studies, including three new international projects.

Growing international presence

- Expanded partnerships across Japan, South Korea and the United States.

Building public understanding

- Launched the next phase of the Mine, Make & Build campaign with over 150 million ad views and 100,000 website visitors.

Strengthening member value

- Expanded member engagement through forums, webinars and technical briefings.

Advocacy & policy leadership

- Continued to shape policy through active engagement with government and industry.

Investment priorities over next 5 years: 2027 – 2032

The next steps for many of LETA's 15 projects include larger demonstration projects to accelerate the development of these technologies and demonstrate a low emission future for coal, including:

- Advancing open cut pre-drainage technologies, expanding opportunities for reducing mine site emissions, while optimising gas drainage without disrupting mining operations
- The large-scale deployment of the Catalytic VAM project at the first Australian mine site/s, demonstrating significant reduction in operational emissions
- A new partnership with POSCO (the largest single customer of Australian exports), developing two new steel carbon capture technologies in Korea
- Supporting a new cost-effective carbon capture technology for deployment in thermal power stations and direct air capture
- Expanding the partnership with Japanese power utilities to use Australian coal to produce clean hydrogen for use in new power stations
- A novel new CO₂ utilisation technology using waste emissions from a coal power station to create high-value materials integral in the production of EV batteries and electronic superconductor componentry

Departing thoughts



- Emissions reduction is an industry wide problem – with shrinking timelines.
- Emissions reduction through CCS requires multiple sectors participating in unison - each with their own challenges, scale and first mover disadvantages.
- Working together at an industry wide level will be required for large scale solutions.
- Success will require support from Governments to reduce first mover disadvantage and encourage collaboration across industry sectors to enable the scale of projects.



If you would like to learn more about LETA or our projects, please feel free to reach out to me at mark.b.mccallum@letaaustralia.com.au Or visit our website via the QR code.

Thank you.