

AUSTRALIAN COAL INDUSTRY BACKS WORLD FIRST KOREAN PROJECT TURNING CO₂ INTO EV BATTERY MATERIALS

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Low Emission Technology Australia (LETA) will provide A\$1 million in co-funding for a world-first South Korean project that captures CO₂ from a coal-fired power station and converts it into high-value materials used in electric vehicle batteries and semiconductors.

This technology has the potential to turn significant volumes of CO₂ into high value material worth tens of thousands of dollars per tonne.

The captured CO₂ is converted into carbon nanotubes and graphite, both critical inputs for next-generation lithium-ion batteries and increasingly used in semiconductor manufacturing.

Carbon nanotubes are an emerging strategic material that will be central to advanced battery manufacturing throughout the world, including any projects in Australia supported under the federal government's Future Made in Australia agenda. The European Union has already recognised the underlying conversion technology as a Strategic Project under its Critical Raw Materials Act.

The "Coal2Carbon" initiative, run by Korean energy company SGC Energy at Gunsan, is the world's first industrial-scale demonstration of green carbon production. SGC's Gunsan facility already captures 100,000 tonnes of CO₂ a year from a coal-fired power station. The Coal2Carbon project pairs that capture stream with conversion technology from Estonian deep-tech firm UP Catalyst.

LETA Chief Executive Mark McCallum said the project pointed to the power of partnerships between Australian industry and our overseas partners to accelerate groundbreaking technologies to unlock significant value from converting CO₂ emissions into a key ingredient essential to a low emission future.

"This is the kind of work that actually shifts the dial," Mr McCallum said. "We're taking CO₂ from a power station and turning it into materials that go into batteries and semiconductors. With almost 15,000 coal power stations operating around the world, this technology could make a significant contribution to large scale production of critical minerals and battery materials. For Australia and other nations that unlocks the kind of sovereign capability that policies like *A Future Made in Australia* is supposed to build."

The investment sits within LETA's broader strategy of working with international customers on technologies that cut emissions while preserving demand for Australian resources.

South Korea is targeting net zero by 2050 and is looking for ways to decarbonise power, steel and manufacturing without losing industrial competitiveness.

Mr McCallum said LETA was ready to engage with federal and state governments on whether the Coal2Carbon model could be adapted for Australian conditions.

"We've put \$1 million into unlocking this technology in Korea. The next conversation is how Australia could maximise the benefit from this international partnership".

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ABOUT LOW EMISSION TECHNOLOGY AUSTRALIA

Low Emission Technology Australia (LETA) is a not-for-profit funding mechanism that accelerates the development and large-scale deployment of technology solutions to reduce and remove greenhouse gas emissions from critical industries like steel, cement and power generation.

LETA's investment in technology unlocks a faster, cheaper pathway to net zero for hard-to-abate industries that are critical to the economy, provide thousands of Australian jobs and support households every day.

Since 2006, LETA members have contributed more than \$400m to low emissions projects and unlocked a total investment of \$1.1b. LETA members recognise the crucial role of low emissions technologies in enabling a net-zero future for their industries, their customers, their workforces and Australian communities.