

Carbon sequestration critical for Australia: New Report

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Sequestration is a necessary part of any rapid, urgent decarbonisation, and the sequestration industry represents a huge opportunity for Australia if we get it right, according to a new Insights Report released today by the Climate Change Authority.

The paper *Reduce, remove and store: The role of carbon sequestration in accelerating Australia's decarbonisation*, contains 23 policy insights as part of a "deep dive" designed to help policymakers, emitters and markets to better understand how sequestration can be scaled-up, accelerated and used responsibly.

What is Carbon sequestration?

Carbon sequestration is the capture and storage of carbon. Carbon can be captured from the atmosphere or from point sources of emissions. Once captured, carbon can be stored in geological formations, biological material, minerals, the ocean or long-lived products.

"Meeting the Paris Agreement objectives for limiting global warming is only possible with both rapid reductions in global greenhouse gas emissions and the removal of emissions from the atmosphere. The Intergovernmental Panel on Climate Change and International Energy Agency indicate the only technically feasible, cost effective and socially acceptable pathways to net zero by 2050 combine ambitious emissions reductions with carbon dioxide removals at far greater scale than at present," Mr Brad Archer, CEO of the Climate Change Authority said.

The Intergovernmental Panel on Climate Change estimates that for a 50 per cent chance of limiting global warming to below 1.5°C, around 6 billion tonnes of CO₂ would have to be removed per year by 2050 globally, and about 14 billion tonnes per year by 2100.

"The Authority's Report highlights that more work is required to map and understand just how much of Australia's sequestration potential can be realised," said Mr Archer.

"While reducing emissions at source is critical, the extent of the climate challenge means there must be effort directed to sequestration. We need to use all the tools in the toolkit. That includes developing a carefully designed portfolio of approaches, as no single technology can achieve the levels of sequestration likely to be needed."

Other key policy insights from the report include:

- The Government's forthcoming net zero plan and the Authority's Annual Progress Reports should include sequestration and identify how it will be delivered and used over time.
- Separate targets for emissions reduction and carbon removals should be set to help incentivise future demand and help guard against sequestration being used to delay emissions reductions.
- Sectoral pathways and targets for decarbonisation would improve understanding of the likely future demand for sequestration, by clarifying the extent to which mitigation is likely to be possible, particularly from production processes in the agriculture and industrial sectors.
- Governments should pursue policies that help ensure there is adequate supply of sequestration

to meet demand, including policies that: 1) prioritise direct emissions reductions where economically feasible; 2) protect, increase, and renew biological sequestration; and 3) scale-up engineered and geological sequestration, both onshore and offshore.

- Australia should prioritise sequestration approaches that make optimum use of resources (land, energy, and water) for the volume of carbon stored. Addressing market imperfections would enable markets to better resolve trade-offs in an economically efficient way.
- Global demand for sequestration and low emissions energy is expected to grow rapidly over the coming decades, presenting economic opportunities for Australia to support increasing global ambition, establish new industries and reinvent existing ones.

The policy insights presented in this paper will inform the Authority's upcoming work, including advice for the Minister for Climate Change and Energy's second Annual Climate Change Statement and Australia's next Nationally Determined Contribution.

To learn more: click [here](#).

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