

INVESTING IN CARBON CAPTURE AND STORAGE IN AUSTRALIA – WHAT YOU NEED TO KNOW

In chasing down opportunities to invest in the energy transition, private capital is increasingly focused on unlocking the investment potential offered by alternative technologies such as carbon capture and storage (CCS) and the associated value chain including carbon credits. This briefing provides an overview of CCS in Australia, including the financial incentives available to facilitate investment in CCS technologies, the regulatory framework for CCS and some of the key issues to consider when investing in the sector.

CCS involves the capture of carbon dioxide (CO₂) from the burning of fossil fuels and other sources (such as from cement production or steel manufacture), compression and transportation (including via pipelines, trucks and ships) and permanent storage through injection into a suitable geological formation. Such formations can include saline aquifers (for example, sandstones that are filled with brine), depleted oil or gas fields, and potentially other types of rocks such as deep coal seams or basalts.

In Australia there are 16 announced CCS projects at various stages of completion (including 14 in development and under construction) at the date of this briefing, with the Gorgon CCS project being the only commercial-scale CCS facility developed in Australia to date (see [Australia's Commodity Resources 2024](#)). Current planned projects are forecast to store approximately 20 million tonnes of CO₂ a year by 2035.

FINANCIAL INCENTIVES

Government funding

A number of government funding programmes have been established to facilitate investment in alternative technologies such as CCS, including the Carbon Capture Technologies Program, which has now closed for applications.

In addition, agencies such as the Australian Renewable Energy Agency (ARENA) offer funding to accelerate the affordability of new technologies and to build investor confidence in renewable energy projects now and into the future. ARENA's strategic priorities for 2023-24 to 2025-26 are to optimise the transition to renewable electricity, commercialise renewable hydrogen, support the transition to low emissions metals and decarbonise transport, but such priorities do not expressly refer to CCS technologies.

Key issues

- Carbon capture and storage (CCS) may present opportunities for investment by private capital.
- There are a number of financial incentives available to facilitate investment into CCS, including government grants and Australian carbon credit units (ACCUs).
- CCS and ACCUs sit within a broader regulatory framework in Australia.
- There are key investibility and bankability points associated with CCS projects to keep in mind when doing business in this sector.

Federal budget

The 2024-25 Federal Budget allocated A\$566.1 million over 10 years for the Resourcing Australia's Prosperity (**RAP**) program, which aims to map geological storage potential necessary for the development of CCS projects.

The RAP aligns with the CCS aspects of the Future Gas Strategy, which was released in May 2024 and highlighted the role of CCS in decarbonising natural gas operations and the hard-to-abate industrial sector. Read more in our briefing: [Decarbonising Australia's economy: The future of gas in the energy transition](#).

ACCUs

One of the financial incentives available in Australia to facilitate investment in carbon abatement activities is the Australian carbon credit unit (**ACCU**) scheme. Eligible ACCU scheme projects can earn ACCUs when they reduce or avoid emissions. One ACCU represents one tonne of carbon dioxide equivalent (tCO₂-e) that would have otherwise been released into the atmosphere.

In order to be issued with ACCUs, the CCS project must be declared as an 'eligible offsets project' by the Clean Energy Regulator (**Regulator**) pursuant to a regulatory framework comprising the *Carbon Credits (Carbon Farming Initiative) Act 2011* (Cth) (**CFI Act**), the *Carbon Credits (Carbon Farming Initiative) Rule 2015* (Cth) (**CFI Rules**) and the *Carbon Credits (Carbon Farming Initiative) Regulations 2011* (Cth) (**CFI Regulations**).

An 'offsets project' is either:

- a sequestration offsets project – being a project:
 - to remove CO₂ from the atmosphere by sequestering carbon in one or more of the following: living biomass, dead organic matter or soil; or
 - to remove CO₂ from the atmosphere by sequestering carbon in, and to avoid emissions of greenhouse gases from, one or more of the following: living biomass, dead organic matter or soil; or
- an emissions avoidance offsets project – being an agricultural emissions avoidance project, a landfill legacy emissions avoidance project or another project to avoid emissions of greenhouse gases.

Eligibility criteria

The Regulator will not declare an offsets project to be an 'eligible offsets project' unless the Regulator is satisfied that the following criteria have been met.

Location of the project

The project is, or is to be, carried out in Australia.

Methodology

The project is covered by a methodology determination and meets the requirements as set out in that methodology determination.

In the context of CCS, the relevant methodology determination is the Carbon Credits (Carbon Farming Initiative – Carbon Capture and Storage) Methodology Determination 2021 (**CCS Method**), which came into effect in 2021.

Additionality requirements

The project meets the 'additionality requirements' – being either:

- the 'newness requirement' (for example, the project has not begun to be implemented) – noting that the making of a final investment decision or commencing construction work will indicate that the project has begun to be implemented;
- the 'regulatory additionality requirement' (for example, the project is not required to be carried out by or under a law of the Commonwealth, a State or a Territory); or
- the 'government program requirement' (for example, the project would be unlikely to be carried out under another Commonwealth, State or Territory government program or scheme in the absence of a declaration of the project as an eligible offset project),

in each case unless the relevant methodology determination specifies otherwise.

Project proponent

The applicant must be the project proponent for the project. The project proponent is a person who is responsible for carrying out the project and has the legal right to carry out the project.

If there are two or more project proponents for a project, then the proponents may, by joint written notice given to the Regulator, nominate one of them as being their nominee in relation to the project. In these circumstances, the proponents would typically enter into a written agreement such as a shareholders' or joint venture agreement to govern their rights and obligations with respect to the project.

Fit and proper person test

The applicant must pass the fit and proper person test.

An individual and/or a body corporate will pass the test if they are a fit and proper person having regard to whether any of the events specified in the CFI Rules have occurred (for example, the Regulator in its capacity as the Carbon Credits Administrator may exclude persons with a track record of dishonest conduct, breaches of the scheme legislation or other relevant matters, including, in relation to bodies corporate, where key personnel have such a track record) and provided that they are not insolvent under administration.

Excluded offsets project

The project is not an excluded offsets project (being a project specified as such in the CFI Regulations or the CFI Rules) – for example, where there is a material risk that the relevant activity will have a material adverse impact on one or more of the following: the availability of water; the conservation of biodiversity; employment; the local community; and land access for agricultural production.

Other

The project meets any other eligibility requirements under the CFI Regulations or the CFI Rules.

REGULATORY FRAMEWORK

Federal level

The regulatory framework for CCS at a federal level is complex and depends (to a large extent) on whether the relevant CCS project is being carried out 'offshore' (for example, more than three nautical miles from the territorial sea baseline) or 'onshore'.

If it is carried on 'offshore', then the relevant CCS project will be subject to (amongst other things) the following acts and associated rules and regulations:

- the *Offshore Petroleum and Greenhouse Gas Storage Act 2006*;
- the *Environment Protection (Sea Dumping) Act 1981*;
- the *Environment Protection and Biodiversity Conservation Act 1999*; and
- the *National Greenhouse and Energy Reporting Act 2007*.

There have been a number of regulatory developments at the federal level that reflect the federal government's support for CCS.

In July 2023 the *Environment Protection (Sea Dumping) Amendment (Using New Technologies to Fight Climate Change) Bill 2023* was released and was passed in November 2023. The Bill amends the *Environment Protection (Sea Dumping) Act 1981* to enable the export of CO₂ streams for CCS via a permit granted by the Minister.

This paves the way for international CO₂ transactions, which may be facilitated by (amongst other things) 'government to government' arrangements (for example, pursuant to the amended Act, an 'agreement or arrangement' between Australia and the other relevant country is a precondition of the Minister's grant of a permit to export CO₂) and commercial agreements between project proponents and emitters.

As the CCS sector further develops in Australia, investors may look to other jurisdictions for inspiration on the different contracting models they may wish to adopt and adapt. For example, the Northern Lights project (which the global Clifford Chance team advised on) is an example of a cross-border CCS project pursuant to which CO₂ is captured in multiple jurisdictions across Europe and transported to a central hub and stored offshore in Norway.

Closer to home there are a number of jurisdictions across APAC that have recently introduced CCS-specific legislation, including Indonesia, Malaysia and Thailand. This may, in time, facilitate cross-border CCS transactions between Australia and other jurisdictions in APAC.

State and territory level

Similar to the oil & gas sector, there is no uniform approach being adopted at the state and territory level on the regulation of CCS.

In terms of recent developments, in May 2024:

- Green light: Western Australia passed the *Petroleum Legislation Amendment Bill 2023 (WA)* which establishes a regulatory regime for CCS in Western Australia, on land, in coastal waters and in Western Australia's territorial sea. The legislative framework will facilitate CCS projects in WA (beyond the Gorgon Project), and the development in WA of a CCS industry, as part of the State Government's commitment to net zero by 2050; but

- Red light: Queensland issued a total ban on CCS in the Great Artesian Basin.

Building on the 'CCS hub' theme outlined above at the federal level, various state and territory governments have been actively exploring the potential development of CCS hubs, including the Northern Territory Low Emissions Hub.

KEY ISSUES TO CONSIDER

Environment

There are a number of environmental issues to consider in the context of the development, operation and maintenance and decommissioning of major projects in Australia, including CCS projects.

General

At the federal level this includes compliance with the *Environment Protection and Biodiversity Conservation Act 1999* and at the state level this includes compliance with the *Greenhouse Gas Geologic Sequestration Act 2008* (Vic) and the *Petroleum and Geothermal Energy Act 2000* (SA).

Environmental liabilities under the CFI Act are typically allocated to the project proponent, who is responsible for managing and mitigating any environmental risks associated with the project. The CFI Act does not detail how project participants share credits and environmental liabilities. It would be common for the project proponent to bear the primary responsibility for environmental liabilities, while credits may be shared amongst participants based on their respective contributions and agreements.

Leakage

In the context of CCS, a key issue to consider is leakage, which is effectively a reference to how the project can safely contain the proposed volume of greenhouse gas substances that are planned to be stored at a particular location without 'leaking' or compromising a formation's geotechnical integrity.

The CCS Method accounts for leakage risk from the end of the crediting period to successful site closure. In Australia, successful site closure typically occurs after the project proponent has applied for a refund of the withheld ACCUs within the extended accounting period and the regulating authority (which varies, depending on the jurisdiction where a project is located and whether it is onshore or offshore) has issued evidence of such closure. To account for any such leakage, the abatement calculation applies a 3% reduction to the amount otherwise abated. The resulting withheld ACCUs will be returned on successful site closure once the project proponent applies for a refund within the extended accounting period. The regime does not contemplate a complete storage failure, but instead accounts only for anticipated leakage from fugitive emissions by withholding a specified amount of ACCUs.

Decommissioning

The issue around environmental liabilities and decommissioning is a complex and evolving area in Australia and globally. Read more in our briefing: [Energy Transition - How to mitigate the risk of disputes in decommissioning](#).

Social

Securing positive stakeholder engagement to facilitate a project proponent's social licence to operate is critical to the success of a CCS project in Australia and there are many lessons to be learnt from the oil & gas and mining industry in this regard.

Carbon tax

There is currently no carbon tax in Australia, but we expect that this issue will continue to be debated in the context of the 'carrot vs stick' approach to encouraging CO₂ emitters to reduce their emissions and facilitate Australia achieving its net zero target by 2050.

WHAT'S NEXT?

The scientific consensus is that global CCS deployment remains well below what is required in a net zero scenario (IEA 2024).

Against this backdrop we expect that there will be increased focus on investment opportunities by private capital in the CCS sector, particularly in light of recent developments that facilitate cross-border transactions across Asia Pacific.

However, in order for these opportunities to be realised at scale it will be important for there to be increased support by government including to:

- Coordinate CCS hub development through legal and regulatory frameworks;
- Accelerate administrative and permitting procedures;
- Implement policies to stimulate investment including R&D funding, carbon contracts for difference, public procurement programs, grants and other financial incentives; and
- Develop new business models and deployment approaches for CO₂ management including through industry consortia or coalitions.

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