

Glencore's CTSCo Carbon Capture and Storage (CCS) Project

Dear Reader,

Glencore would like to respond to commentary and concerns related to our proposed CTSCo Carbon Capture and Storage Project in Queensland.

The CTSCo Project aims to conduct injection testing of 110,000 tonnes of carbon dioxide per annum for three years at a depth of 2.3 kilometres at a storage site in the Surat Basin.

We accept that not everyone is familiar with or supports carbon capture and storage (CCS) technology and may have concerns about the process and where we are proposing to inject and store the carbon dioxide (CO₂).

The International Energy Agency (IEA) has identified CCS as a key technology that will be needed in the global transition to a low carbon economy.

- CCS is an important and proven technology which can mitigate carbon emissions from hard to abate industries and is a potential enabler of future energy projects in Australia.
- There are currently 27 large-scale CCS facilities in commercial operation, four in construction and 58 in advanced development stage. These facilities are already capturing nearly 40 million tonnes of CO₂ per annum and more than 260 million tonnes of CO₂ has been safely injected underground.

We expect a robust and detailed review of our CTSCo project by government regulators.

- Our CTSCo injection testing project is informed by scientific data, including third-party expert geological and environmental studies to assess potential impacts of the project on the environment. These studies are publicly available as part of our Environmental Impact Statement (EIS) which has been on public exhibition.

We acknowledge that some stakeholders may be concerned about storing carbon dioxide in an aquifer located in the Great Artesian Basin (GAB).

- The GAB is made up of both potable and non-potable aquifers with varying water quality levels. There are also around 35,000 water bores currently in the GAB, the majority of which are less than 200 metres deep.
- The Federal Independent Expert Scientific Committee (IESC) was asked by the Queensland Government to provide advice on the CTSCo Project. In their response to the Queensland Government the IESC indicated that given the small scope of the project and geological stability of the storage complex at the project location, impacts from the project are expected to be minimal and manageable in both the immediate and long term.

Our project is deliberately focusing on a very deep, low-quality sandstone section of an aquifer that is geologically isolated from shallower aquifers used by the agricultural community.

- The aquifer in which we are proposing to store carbon dioxide contains brackish water with fluoride levels over six times the drinking water guideline for human consumption and three times over the recommended maximum level for livestock consumption.
- Glencore understands the critical importance of water access and management and we have no intention of interfering with shallower aquifers used by the agricultural community.

Glencore has been open and transparent about the CTSCo injection testing project and welcomes engagement with all stakeholders, including the agricultural community.

Darren Greer

General Manager, Glencore's CTSCo Project

How do I find out more information about the project?

Contact the CTSCo Project team via email enquiries@ctscocom.au or the Project hotline 1300 119 786 or visit our website at www.ctscocom.au.

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About Glencore's CTSCo Carbon Capture and Storage (CCS) Project

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CTSCo Project FAQs

What is Glencore's CTSCo Project?

Our CTSCo Project aims to capture up to 110,000 tonnes of CO₂ per annum for three years from the Millmerran Power Station and conduct a test injection of this CO₂ at depths of 2.3 kilometres at our CO₂ storage site in the Surat Basin.

What's the current status of the project?

Our project is currently undergoing environmental approvals; the project Environmental Impact Statement (EIS) was recently on public exhibition for 12 weeks. A Final Investment Decision will follow the environmental approvals process.

Where is the CTSCo storage site?

Our storage site is located in the southern Surat Basin, about 40 kilometres from the town of Moonie in the Western Downs Region.

Why was this storage site selected?

The Federal and Queensland Governments have identified the Surat Basin as potentially suitable for large scale CO₂ storage. Glencore received a greenhouse gas storage exploration permit from the Queensland Government in 2019. For the CTSCo Project, we have deliberately focused on a very deep, 2.3 kilometre, low water quality sandstone aquifer that is geologically isolated from shallower aquifers used by the agricultural community and where the water in that aquifer is non-potable.

What is the water quality in this aquifer?

The aquifer we are proposing to store CO₂ within contains low quality water. It is brackish water with fluoride levels over six times the drinking water guidelines for human consumption and three times over the maximum level for livestock consumption. It is also unsuitable for crop irrigation.

How can Glencore justify storing CO₂ in the Great Artesian Basin?

The Great Artesian Basin (GAB) is made up of both potable and non-potable aquifers with varying water quality levels. There are currently about 35,000 water bores in the GAB and the vast majority are less than 200 metres deep.

At 2.3 kilometres underground, the aquifer we have identified is much deeper than these bores and is geologically isolated from each one of them. Currently there are no agricultural water extraction bores accessing the same Precipice aquifer within 50 kilometres of our storage site. The carbon dioxide that we are proposing to inject is food grade similar to what you find in sparkling water.

Couldn't Glencore have identified a CO₂ storage site outside of an agricultural region?

We understand the importance of water access and management to the agriculture sector, we firmly believe that this project and agricultural activities can coexist and are committed to engaging with all community stakeholders.

The initial storage location that we assessed contained an aquifer of higher quality water but after listening to and engaging with community stakeholders including the agricultural community in that area, we made a decision to look at an alternative storage location, which is the current site being proposed in our EIS.

Why is Glencore confident the storage site is safe?

We have commissioned third-party experts, including from the University of Queensland and the Australian National University, to conduct extensive geological and environmental studies to assess potential impacts to the environment. These studies have provided scientific data that gives us a high level of confidence that our proposed injection testing will not impact on existing water bores or the operations of local livestock or crop producers. Our injection testing well contains multiple physical barriers to ensure these shallower aquifers are protected and we will be conducting extensive monitoring to ensure the stored CO₂ remains in place.

What consultation has Glencore done with the local community?

We have been open and transparent in our engagement with the local community over the past three years. This has included face-to-face meetings, phone calls and making a range of information available publicly, including via our project website and at public information sessions. We welcome further engagement with the agricultural community and other interested stakeholders.

Who is funding the CTSCo Project?

The \$210 million project is funded by Glencore, the Australian coal industry, with some support – \$5 million – from the Australian Government. The project also has an MOU in place with, China Huaneng Group Clean Energy Research Institute Co., Ltd., one of the world's largest energy and technology companies to cooperate on CCS technology.

Are Australian governments supportive of CCS?

In Australia, there is bipartisan support for achieving net zero emissions by 2050. This is now fundamentally influencing government approvals, regulatory and policy decisions and the way that business considers long term investments. The Queensland and Australian Governments have both expressed support for the development of CCS, which is also important for Hydrogen production in the future.