About Glencore's CTSCo Surat Basin Carbon Capture Use and Storage Project

Fact Sheet January 2022

CTSCo
Carbon Transport & Storage
A GLENCORE Company

Glencore's CTSCo Project aims to demonstrate the viability of industrial-scale carbon capture and storage in the Surat Basin.

Glencore has outlined a decarbonisation pathway for our business to achieve an ambition of net zero total emissions by 2050.

Our strategy includes investment in and support for a range of measures including low emission technologies like Carbon Capture Use and Storage (CCUS) which the International Energy Agency (IEA) has identified as a critical technology for achieving global climate change goals.

Under all credible scenarios, fossil fuels (oil, gas and coal) will continue to be an important part of the global energy mix for decades.

We believe CCUS technology can support both the reduction of emissions from the use of fossil fuels across a range of industrial sectors in Australia. We believe this is consistent with the current climate and energy policy goals of the Queensland and Federal Governments.

WHAT IS THE CTSCO PROJECT?

CTSCo is a wholly-owned subsidiary of Glencore, one of Australia's largest diversified natural resource companies. We have been actively developing the CTSCo Project in cooperation with industry and Federal Government support for the past 10 years.

CTSCo is Australia's most advanced onshore CCUS project that also has the capability to develop a large CO_2 storage hub in Queensland suitable for multiple industrial users, including future CO_2 from hydrogen production.

The project is intended as a first step toward large-scale CCUS within a Surat Basin hub, with emissions from multiple generators and other industrial sources being captured and safely stored.

CTSCo has identified three key project components:

- **Capture:** construction of a post-combustion capture (PCC) plant located at Millmerran Power Station;
- **Transport:** transportation of the CO_2 to the storage site;
- **Storage:** permanent storage of CO_2 in the Surat Basin and proving up an industrial scale storage hub for Queensland.

WHERE IS THE PROJECT LOCATED?

CTSCo is focussed on activity in the southern part of the Surat Basin, more than 400 kilometres west of Brisbane.

WHY THE SURAT BASIN?

The 2009 National Carbon Storage Taskforce report and the Queensland Government CO_2 Storage Atlas identified the Surat Basin as a key geostorage area. The report found almost three billion tonnes of theoretical CO_2 storage potential is available in the area. The Precipice Sandstone (aquifer) in the Surat Basin accounts for 1.3 billion tonnes of theoretical storage potential.

The Surat Basin supports a range of primary production activities and has traditionally been an agricultural region. Over the past decade, several billion dollars' worth of resources projects have been developed ranging from coal seam gas (CSG) and liquid natural gas (LNG) to wind farming and solar generation.[1]

The Surat Basin is also home to one of Queensland's youngest power stations, the Millmerran Power Station, making it an ideal location for CCUS.

Rendered image of the proposed CO_2 capture plant to be located at the Millmerran Power Station in Queensland, Australia.

1 SOURCE: Queensland Government's Surat Basin Regional Planning Framework – framework for a prosperous and sustainable community, 2011

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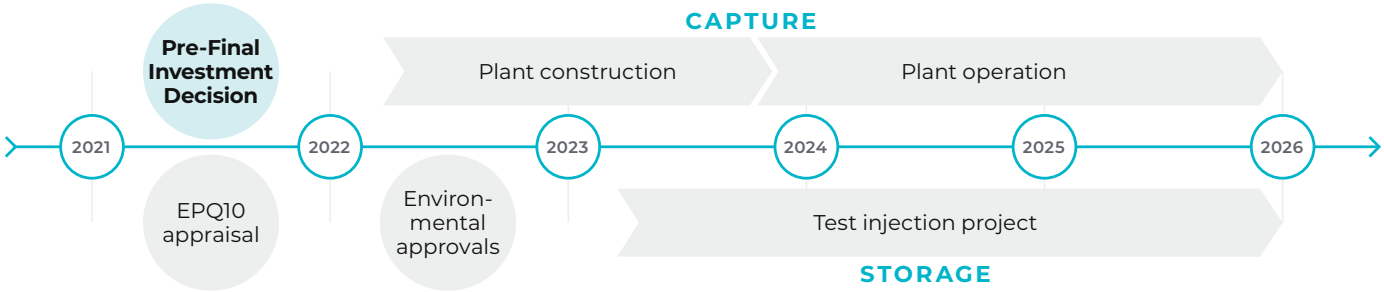
PROJECT STATUS

CTSCo has continued its partnership with the China Huaneng Group (CHG), shareholders in the Millmerran Power Station, on the development of **CO_2 capture** technology for existing power stations.

Glencore has signed a formal Memorandum of Understanding (MOU) with the China Huaneng Group on the CO_2 capture plant that will be installed at the Millmerran power station.

We have completed Feasibility and Front End Engineering Design (FEED) studies towards the undertaking of an integrated post-combustion capture (PCC) plant at at the Millmerran power station in Queensland.

The plant would capture 110,000 tonnes of CO_2 per year and transport this some 100 kilometres to our tenement for permanent underground storage.

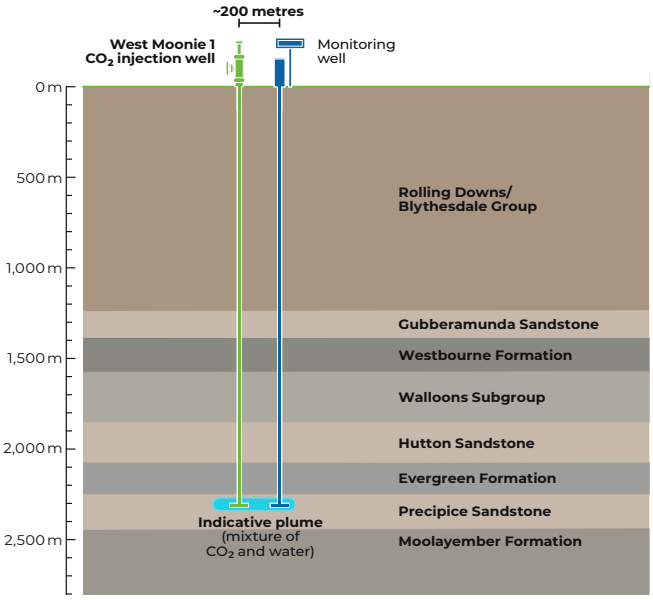


The **storage** component of the CTSCo Project provides a potential pathway to an industrial scale storage hub in Queensland capable of servicing multiple industrial users including coal, natural gas and hydrogen.

In December 2019, the Queensland Government granted CTSCo a greenhouse gas (GHG) exploration permit – at EPQ10 – in the southern part of the Surat Basin. This permit enables CTSCo to thoroughly assess the viability of safely and sustainably storing CO_2 deep underground.

Since that time, we have conducted a number of research and development activities within the tenement and we have successfully drilled an appraisal well at EPQ10 to a depth of 2.7 kilometres. This well has now been cased and suspended as a future injection well and forms the first piece of storage infrastructure at this high potential CO_2 sequestration location. Appraisal activity is ongoing within the EPQ10 tenement to confirm the storage capacity of the area.

We have also commenced an Environmental Impact Statement (EIS) for the Project, to support an application to amend our existing EA to include GHG storage injection testing, and to establish foundation infrastructure for future industrial scale CO_2 sequestration.



Suitable geology: Subsurface cross section showing the Precipice Sandstone Aquifer, the Evergreen Formation Top Seal. The proposed Injection Well and indicative CO_2 plume are also shown, along with the proposed monitoring well

FINAL INVESTMENT DECISION

With funding support from Low Emission Technologies Australia (LETA) – formerly COAL21, and Australian National Low Emissions Coal (ANLEC) R&D Limited, Glencore expects to make a Final Investment Decision on the A$210 million CTSCo Project will be made after receipt of environmental approvals.

We gratefully acknowledge the support of these project participants:

Australian Government
LETA Low Emission Technology Australia
Queensland Government
anlecr&d

For more information, visit **www.ctsco.com.au**

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