Committee Secretary
Senate Standing Committees on Environment and Communications
PO Box 6100
Parliament House
Canberra ACT 2600

RE: The implications of Glencore's proposed carbon capture and storage (CCS) project by its subsidiary, Carbon Transport and Storage Corporation (CTSCo), in the Great Artesian Basin.

Dear Senator Hanson-Young

I am making this submission on behalf of the Queensland Indigenous Labor Network (QILN) in respect to Carbon Transport and Storage Corporation's (CTSCo) proposed carbon capture and storage project which involves the injection of 330 000 tonnes of liquefied CO2 over a three year period, into the Precipice Sandstone aquifer in the Great Artesian Basin. The QILN strongly opposes the project and calls upon the Minister for the Environment and Water to either revoke the Department of Environment delegate decision made on 9 February 2022 to not classify the project a controlled action under national environmental law or implement environmental protections for the Great Artesian Basin similar to what is in place for the Great Barrier Reef.

a) The environmental impact assessment process and the adequacy of the project's approval by federal and state regulatory bodies, including the decision not to classify the project as a controlled action under national environment law;

Response

We note that CTSCo submitted the referral to the Commonwealth DOE on 9 January with a two week public notification period which closed on 23 January 2022. This period not only coincided with historical government and community organisation office closures but also with school holidays and extreme weather events in South and Western Queensland in 2021/2022. The Department's Statement of Reasons dated 9/2/22 noted no public submissions were received during the public notification period. Hardly, surprising given the poor timing of the public notification period scheduled for a period when people were vacationing or communities were dealing with flood recovery. The timing of the public notification period for the project referral was likely a major impediment for ensuring optimal pubic consideration and response to the project proposal. Furthermore, the fact no public submissions were made for a contentious project should have triggered a response from the regulator – i.e extend the public notification period.

It is also worth noting that while information requests were sent by the DOE between 9 - 10 January 2022 to four relevant Federal Ministers. Only two Federal Ministers provided written feedback. The feedback provided by the former Minister Ken Wyatt and former Minister Keith Pitt commended CTSCo's consultation with traditional owners and supported CTSCo's claim that the proposed action would have no impacts to any Matters of National Environmental Significance (MNES), respectively. An information request was also sent on 10 January 2022 to the Queensland Minister for the Environment Meaghan Scanlon. The Minister's delegate provided feedback advising the project was likely to be assessed as a coordinated project and the proposed action would be assessed using the EIS process under the EPA 1994. Feedback provided by State and

Commonwealth Ministers seem grossly inadequate given the potential social, cultural and environmental impacts of the proposed actions on MNES, cultural heritage, human health and regional communities.

The GAB is one of the largest underground water systems in the world and supports significant Indigenous cultural values as well as a range of groundwater dependent ecosystems. It is a unique geological formation that underlies approximately 30 per cent of Australia that extends across most of Queensland and parts of New South Wales, South Australia and the Northern Territory. Natural discharge and mound springs form across inland Australia and provide a natural oasis for people and wildlife in the outback supporting endangered animal and plant species protected under State and Commonwealth legislation. These mound springs are also of great cultural value to First nations people, whose connection to this land is profound and ancient. Given the identified environmental and Indigenous cultural values and attributes recorded around these mound springs the Delegate's decision to not classify the project as a controlled action under national environmental law is negligent and a dereliction of duty.

(b) the potential risks and impacts of the project on the groundwater quality within the Great Artesian Basin, especially concerning the findings related to the acidification of groundwater and mobilisation of heavy metals such as lead and arsenic;

Response

The QILN does not support CTSCo's plan to capture and liquefy CO2 from the Millmerran coal-fired power station, and transport liquefied CO2 to the carbon capture storage site at Moonie. We believe CTSCo's plan to inject liquefied CO2, 2,300 metres underground into the Precipice Sandstone aquifer could have disastrous and lasting environmental effects. We argue the environmental and cultural values of this unique natural asset is immeasurable and must be protected. The dangers of injecting CO2 into an active aquifer is well documented and more recently highlighted by hydrogeologist Ned Hamer. Hamer claims injecting corrosive fluids into the aquifer could lead to a 10,000-fold increase in groundwater acidity which in turn would dissolve the aquifer rock and lead to the mobilisation of heavy metals such as arsenic lead and other heavy metals towards other existing water users. If the mobilisation of these heavy metals occurs it could render the water unsuitable for any current or future uses and destroy valuable cultural Indigenous heritage values. In terms of known unknowns we wish to draw your attention to an incident that occurred early 2021 in the township of Dajarra in Far North West Queensland. The QILN was contacted by local Traditional Owners who were distraught because the communities drinking water from several bores were contaminated by unsafe levels of Uranium. Water had to be trucked into Dajarra because Uranium levels detected in the drinking water was almost three times higher than the Australian Drinking Water Guidelines. The official line was ' Uranium is a naturally occurring element that is found in soils and rocks in many parts of Australia'. However, two abandoned Uranium Mines Mary Kathleen and Ben Lomond Mine located in FNWQ have in the past caused downstream pollution. Yet the possibility of downstream contamination of these leaking mine sites being responsible for the contamination in Dajarra was refuted or downplayed by the Queensland Department of Environment and Science Minister and proponents.

(c) The scientific basis and transparency of the data supporting the project's safety claims, including the robustness of fieldwork, data, and analysis presented by CTSCo and critiques by independent hydrogeologists and aqueous geochemists;

Response
The injection of liquefied CO2 within a usable water resource is unprecedented globally and very risky. The QILN also wishes to highlight the shift in language from the proponent in the draft EIS and final project EIS which does not instil confidence in the fieldwork data collection and analysis nor provides assurance that the proposed action will not impact MNES. For example the proponent in the draft EIS claimed the water in the Precipice Sandstone aquifer was saline and unsuitable for agricultural purposes. However, in subsequent EIS documentation the proponents language seemed to change to reflect submitter feedback i.e water has been useable in some circumstances'. Similarly, there is also no information detailed about fugitive gases in the EIS only the acknowledgment that fugitive gases might escape was during the transportation of the CO2 to the CCS site. Claims that water in the Precipice Sandstone aquifer is of low value is also contradicted by CTSCo's own data which showed the salinity in water in the aquifer was well within the safe range for livestock.

d) The potential socioeconomic impacts on agriculture and regional communities, relying on the Great Artesian Basin for water, including an assessment of the project's impact on existing and future water use rights;

Response
The social and economic value of the GAB is significant given it is the major freshwater supply for rural communities and ecosystems across much of inland Australia. Supplying potable water to 120 towns, hundreds of pastoral stations, rural industries and tourists to the outback. The GAB also supports agricultural and pastoral industries worth about $13 billion to the national economy. Given the potential for contamination of water used for domestic and agricultural purposes is high this project will likely impact future and existing water use rights. The Precipice Sandstone aquifer is the deepest of all Surat Basin aquifer utilised for various purposes including stock and domestic and intensive water use. Most of the shallower aquifers are fully allocated or in some instances over allocated. Some water plans in place across different jurisdictions do not allow for any more water to be taken from the Gab or the issuance of new licenses. This highlights the value of the deeper Precipice Sandstone aquifer for future water use rights for users with existing entitlements.

e) The Consultation processes undertaken with stakeholders, including farmers, Indigenous landholders, environmental groups and the broader public, and the adequacy of these processes in addressing stakeholder concerns.

The consultation undertaken with stakeholders, including farmers, Indigenous landholders, environmental groups, and the broader public, and the adequacy of these processes in addressing stakeholder concerns have been woeful. While CTSCo may have consulted and negotiated with local traditional owner groups broader consultation with other Traditional Owners who may have interests and rights downstream or upstream has not occurred. The gold standard for consulting and negotiating with First Nations peoples is free, prior and informed consent. Our group has also received information from potentially impacted TO groups that throughout the company's consultation with TOs that individuals and communities were advised that CCS was a way to reduce green house gas emissions and therefore something that should be supported. We believe that CTSCo has green-washed this project to Traditional Owners to secure support for the project and have not necessarily fully detailed the potential hazards of injecting CO2 industrial waste into the Great Artesian Basin. Failure by the Queensland Government

and the proponent to consult widely on this project which has the potential to impact other Traditional Owner groups across three states and the Northern Territory is not consistent with the Queensland Governments commitment to reframing the Relationship and its Path to Treaty legislation. The omission of meaningful consultation raises serious concerns about the transparency and inclusivity of the decision-making process in the project EIS assessment. While the lack of engagement with potentially impacted native title holders is deeply troubling, the proponents failure to do so also neglects the legal and moral obligations to involve our communities in decisions that are likely to affect our traditional lands and waters. Failure to consult broadly and provide timely and adequate information to First Nations peoples who have stewardship over these lands and waters has resulted in growing concern that the project should not proceed and CTSCo should not be granted a social license to operate in the Great Artesian Basin.

f) Potential precedent set by allowing CCS projects within the GAB and its implications for future projects considering Australia's strategic interest in preserving its largest groundwater system.

Response

The QILN is concerned that if this project is approved it could potentially give the green light to other CCS projects to use the GAB as an industrial waste reservoir. If the project is approved it sets a very dangerous precedent and will likely lead to other proponents securing support and approvals for similar CCS projects within the GAB footprint. If this were to happen it would significantly impact the health of the water source, affect the supply of potable water to regional towns and impact future water rights for agricultural uses which in turn will have a knock on effect for food production and the Australian economy. This project is viewed as a Trojan Horse to keep alive the coal industry in regional Queensland. We know Glencore has aspirations to progress its blue hydrogen project that will produce ammonia and hydrogen using black coal from its Wandoan mine in the Surat Basin. Glencore's own fact sheet states CCS technology will be used to store most of the CO2 emissions derived from the process deep underground at a depth of over two kilometres. In the company's Surat Basin fact sheet (Jan/2022) Glencore states the company has identified 3 billion tonnes of theoretical CO2 storage potential in the GAB. This would seem to indicate Glencore is eyeing off other aquifer's given the Precipice Sandstone aquifer accounts for only 1.3 billion tonnes of theoretical CO2 storage.

g) The role of CCS technology in Australians broader climate change mitigations strategy including an evaluation of its efficacy, risks and alternatives.

Response

The QILN supports initiatives to reduce carbon emissions and transitioning Queensland towards its goal of net zero emissions by 2050. However we have concerns that CCS is being spearheaded to prolong the energy sectors reliance on fossil fuels. CCS formally referred to as enhanced oil recovery (EOR) has been around since the 1970s and has its origins in the gas and oil industries to extract depleted oil and gas resources not solely for environmental reasons. CCS technologies currently in use or being proposed will only extend a lifeline to the fossil fuel industry. However, we do believe CCS emerging technologies are integral in the CO2 reduction solution mix if they draw down CO2 and are not just used to make very polluting emission sources less polluting. CTSCo's proposed project does not meet this threshold as it will only capture emissions from a coal-fired power station and extend the life not only of the plant but also the coal industry in the Surat Basin. Furthermore in comparison to solar, wind and battery storage

technologies used for energy production CCS is an expensive and less efficient technology when it comes to lowering CO2 emissions and lowering the cost of producing energy. This supposition is supported in CSIRO's GenCost 2023 report which states a coal fired power station in 2030 will produce power at a cost of around 3 times that of wind, solar and battery storage.

CCS is an expensive technology and has limited efficacy in terms of combating climate change. A clear example is the Gorgan Gas Facility that involves a saline aquifer CCS process owned and operated by Chevron and Exxon Mobile in Western Australia. Despite this project being the world's most expensive at around $3.2 billion, technologically advanced and ideally sited offshore on Barrow Island it has only been able to achieve after five years of operating 50% of the proposed carbon abatement. A condition of approval was the injection of 4 million tonnes of CO2 into a natural underwater reservoir. As a result of failing to meet the carbon sequestration target of 80 per cent, the proponent has had to purchase carbon credits to make up the shortfall.

Given the limited success of CCS projects throughout Australia it is disappointing that the support for carbon capture storage projects like this are being horse traded for the possible destruction of the GAB to reduce Australia's and Queensland's GHG emissions at the expense of First Nations peoples rights and interests, the agricultural and pastoral industries and regional communities.