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10 March 2023

Mr Tony Zappia MP
Chair
House Standing Committee on Climate Change, Energy, Environment and Water
cceew@aph.gov.au

Dear Mr Zappia

Pilot Energy Limited has prepared the following submission on the Terms of Reference for the inquiry into the 2009 and 2013 amendments to the 1996 Protocol to the Convention on the Prevention of Marine Pollution By Dumping of Wastes and Other Matter 1972 (London Protocol).

Proposed Pilot Response.

Pilot Energy Limited (**Pilot**) is an independent oil and gas exploration and production company transitioning from a historical focus on hydrocarbon production moving towards the production of and supply of clean carbon-free energy. Pilot provides the following comments on the proposed Terms of Reference as a future carbon management service provider contracting with third parties to permanently store CO₂ at the Cliff Head Carbon capture and Storage Project (**CCS**) project and as the proponent of the Mid West Clean Energy Project (**MWCEP**) the clean ammonia export project.

Pilot Energy Background

In 2022 Pilot initiated the MWCEP to leverage our existing operational asset base into the production of clean energy. The MWCEP is a clean ammonia export project aiming to produce up to **1.2 million tpa** of carbon free clean ammonia starting in 2027.

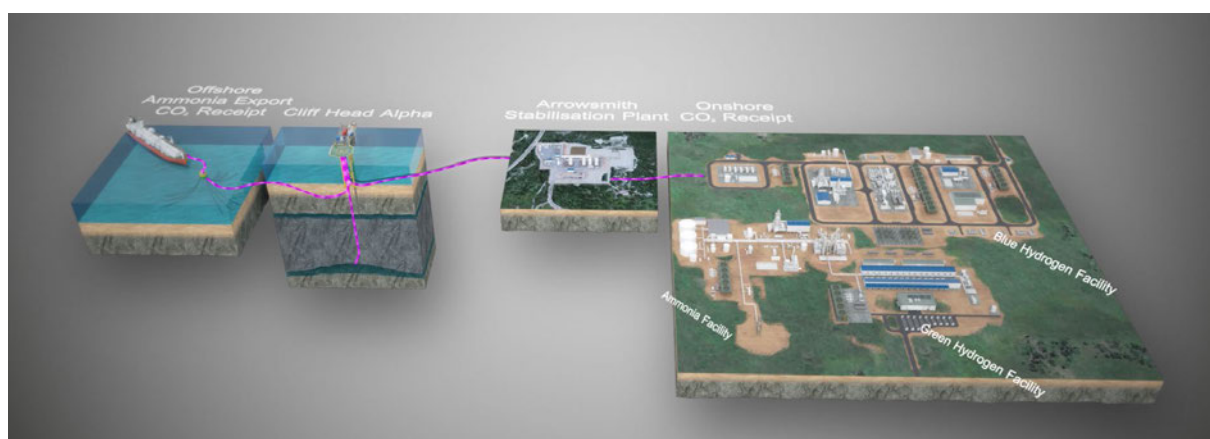


Figure 1 Pilot's MWCEP overview schematic

The project includes a fully integrated CCS operation through the conversion of the operating Cliff Head offshore oil field. CCS enables the production of blue hydrogen with the proposed hydrogen production technology integrating the production of green hydrogen and ammonia. Importantly the project will be designed to incorporate the supply of hydrogen into the WA domestic market.

The CCS project aims to provide over **1 million tpa** of permanent carbon capture & storage starting in early 2026 capturing both third party industrial CO₂ emissions as well as ~99% of any CO₂ generated

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by the MWCEP. Pilot plans to initially commercialise the project by providing carbon management services to third parties followed by sales of ammonia (therefore the long term use of the facility to support hydrogen production). Potential CCS domestic customers for the project include the gas developments across the Perth Basin (removal and permanent storage of the CO₂ in the raw gas streams) and emissions intensive operations in the Kwinana Industrial Area.

Pilot's offshore CCS project is analogous to Project Greensand which recently commenced CO₂ injection operations at INEOS's Nini depleted offshore oil field in the Danish North Sea. Importantly this project is a clear demonstration of cross border CO₂ transportation, as the CO₂ source is from INEOS's Oxide Site in Belgium some ~600km away from the CO₂ injection site. Below are links to the Project Greensand website and a recent article on the project.

<https://www.projectgreensand.com/first-carbon-storage>

<https://www.gasworld.com/story/project-greensand-heralds-ccs-breakthrough/2121593.article/>

Terms of Reference Submission

Due to the nature of the MWCEP, Pilot's submission is focussed on items a), c) and d) of the terms of reference

- a. the environmental benefits and impacts of exporting and importing carbon dioxide streams for the purpose of sub-seabed sequestration*

During the transition away from emissions intensive economies, some industries will continue (albeit on a declining basis) to emit CO₂ into the atmosphere. Capturing these emissions and permanently storing/sequestering the captured emissions in underground geologic formations or through re-use will be required alongside other initiatives to manage transition period emissions as the alternative to capture is accepting continued release to atmosphere.

The emissions reduction challenge is a global challenge and is not constrained by international borders. Energy transition period emission will be generated throughout the globe with a significant volume of future emissions being generated in countries with little or no viable underground storage capacity (for example Japan and Korea which are also some of the largest consumers of Australian carbon-based energy exports). However without the legal framework to facilitate transborder transport of CO₂ emissions Australia will not be in a position to assist these countries reduce their contribution to global emissions or to share the responsibility for carbon emissions which have a primary point-of-origin as Australian carbon-based energy exports. Failing to participate in the capture and permanent storage of these carbon emissions is likely to have a detrimental impact on Australia's local environment, and potentially offset Australia's domestic emissions reduction efforts.

Pilot's Cliff head CCS project will be able to provide a carbon management service to local and international emitters, and therefore we encourage the Committee and Parliament to progress as a matter of urgency the necessary legislation to address and incorporate the 2009 and 2013 amendments to the London Protocol.

- c. the international market for carbon dioxide streams*

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Pilot is actively engaged with participants in the global clean energy and carbon markets as we progress advanced discussions to introduce partner/s into the MWCEP. Those discussions have highlighted the pace at which international markets and participants are solving supply chain challenges and commencing to build out the necessary capacity to capture, transport and store CO₂. The US Inflation Reduction Act has further accelerated these activities with participants prioritising the deployment of people and capital into US projects.

Australia is strategically placed to provide carbon management services to our regional neighbours and international partners leveraging the advancements being made elsewhere by putting in place the regulatory frameworks to enable efficient import of CO₂ into Australian projects for permanent storage. Initiating cross border CO₂ movements will also strengthen Australia's position to supply low carbon products, such as ammonia, to the same markets that we import CO₂ from as part of a two way trade arrangement. Australia has historically exported significant volumes of fossil fuel based energy into Asia, and it is now time to unwind historical CO₂ emissions by supplying clean low carbon energy products with the ships carrying CO₂ on the return leg and in turn share the responsibility for managing the full life-cycle of the carbon emissions that originate from Australia as a primary point-of-origin for Australian carbon-based energy exports.

d. the interaction of the proposed amendments with greenhouse gas inventories and regulatory and reporting streams.

The proposed amendments need to ensure the importation and permanent storage of CO₂ should not result in an increase to Australia's carbon budget.

In conclusion Pilot Energy supports amending the existing legislation to formally accept the 2009 and 2013 amendments to the London protocol to ensure Australian can play its role in bringing down global emissions.