AUSTRALIAN CONSERVATION FOUNDATION

6 JULY 2023

Submission to the Environment Protection (Sea Dumping) Amendment (Using New Technologies to Fight Climate Change) Bill 2023 [Provisions]

Recommendations:

Recommendation 1: ACF recommends that this Bill is not supported or passed by Parliament as it increases risk of higher emissions and could enable future fossil fuel developments, including the expansion of the gas industry at a time when science demands there can be no more fossil fuel developments and those that already exist must be phased out.

Recommendation 2: The Federal government should clarify what ramifications are of the passing of the Bill on Australia's greenhouse emission inventory, and therefore our compliance under the Paris Agreement.

Recommendation 3: Before passing this Bill, the Federal Government provide examples of successful, commercial scale, cost-effective seabed CCS.

Recommendation 4: While we do not support this bill, if it is to proceed, amend the Bill to mandate environmental impact assessment to be completed for carbon capture and storage import and export.

Recommendation 5: While we do not support this bill, if it is to proceed, amend the Bill to mandate compliance with both the "Risk Assessment and Management Framework for CO2 Sequestration in Sub-Seabed Geological Structures" and the "Specific Guidelines on Assessment of CO2 Streams for Disposal into Sub-Seabed Geological Formations (the Specific Guidelines)".

Introduction

The Australian Conservation Foundation (ACF) welcomes the opportunity to comment on the *Environment Protection (Sea Dumping) Amendment (Using New Technologies to Fight Climate Change) Bill 2023 [Provisions]*. ACF does not support carbon capture and storage (CCS) connected to coal, oil and gas extraction, processing or use or related to any project that uses captured CO2 to extract more oil and gas through enhanced oil recovery. CCS Applied to fossil fuel projects remains unproven, prolongs the life of fossil fuels, and delays the deployment of clean energy sources. ACF is surprised and disappointed to see the Australian government's intention to continue supporting disproven and unnecessary technologies and allowing international emissions to be buried in carbon capture and storage projects in in sub-seabed geological formations in our region.

Australia needs to reduce climate emissions in line with the science-based temperature goals that Australia committed to under the Paris Agreement, limiting warming to 1.5°C. Allowing the use of unproven technologies and accepting CO_2 from overseas puts Australia at significant risk of failing on our Paris Agreement commitments.

ACF is Australia s national environment organisation. We are 700,000 people who speak out for the air we breathe, the water we drink, and the places and wildlife we love. We are proudly independent, non-partisan and funded by donations from our community.

ACF believes Australia and the world face an unprecedented climate and mass extinction crisis caused first and foremost by digging up and burning fossil fuels like coal, oil, and gas. Transitioning to a clean, renewable energy-based system is a critical element of Australia's transition to net zero emissions and economy-wide action on climate change.

The Bill

Recommendation 1: ACF recommends that this Bill is not supported or passed by Parliament as it increases risk of higher emissions and could enable future fossil fuel developments, including the expansion of the gas industry at a time when science demands there can be no more fossil fuel developments and those that already exist must be phased out.

London Protocol

The Environment Protection (Sea Dumping) Amendment (Using New Technologies to Fight Climate Change) Bill 2023 (the Bill) would amend the Environment Protection (Sea Dumping) Act 1981 (the Act).

The Act implements Australia's international obligations under the 1996 Protocol to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter 1972 (the London Protocol). The Act regulates the loading, dumping and incineration of waste at sea and the placement of artificial reefs within Australian waters. It also prohibits the ocean disposal of material considered too harmful to be released into the marine environment and regulates permitted ocean waste disposal to minimise its potential harmful environmental impacts.

If passed, the bill would allow shipments of carbon pollution and other marine waste to bypass restrictions imposed in 1972 under the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter 1972 (London Convention) and the 1996 Protocol to the Convention (London Protocol). This would allow Australia to become the world's undersea dumping ground for carbon pollution, and to become a carbon pollution enabler – taking carbon pollution from other countries and sending it elsewhere (across international borders) for disposal. Claiming that CCS is an acceptable solution for fossil fuel emissions and that it is a "technology to fight climate change' as the Bill's name implies, is a perverse interpretation of the acceptable uses of CCS. The real outcome of this Bill would be to further enable the Australian and the international fossil gas industry to continue operating into the future and to reduce the consequences they face related to their climate emissions, at a time when the Australian government claims to be acting on climate change.

The International Energy Agency's mapping of a net zero by 2050 pathway makes it clear that there can be no new oil or gas fields—this mapping includes CCS technology being deployed at scale.[1] The bill in its current form, however, will enable the gas industry to leverage the import and export of CO_2 across international borders and support significant expansion of CCS in Australia. It will further allow industry to continue polluting through new and highly polluting fossil fuel projects, using CCS as a justification. In fact, Santos' proposed Bayu Undan CCS project is unlikely to proceed until the legislation is enacted, as it requires dumping and injecting of CO_2 in East Timorese waters.[2]

It is ACF's understanding that the main domestic projects the Bill will enable are in the Northern Territory. These include the export of CO_2 from Santos' highly polluting Barossa gasfield in the Northern Territory, via the CCS hub at Middle Arm in Darwin Harbour, then out to East Timorese waters to be injected into the depleted Bayu Undan gasfield.

The Bill will also allow export of CO2 to non-signatories of the London Protocol. It is unclear how the capacity and experience of these countries will ensure successful, safe, and permanent carbon storage through the Act. Even if Australia has minimal export in the near term due to our domestic storage capacity, a significant problem remains about the failure of CCS to store carbon emissions effectively and permanently. The abject failure of Chevron's Gorgon project is one example, which has been plagued by serious delays, cost overruns and failures - but most notably has seriously underperformed against the agreed commitment to re-inject 80 per cent of Gorgon's CO2 deeply and permanently underground. It has been reported that almost 15 million tonnes of CO2 arrived on Barrow Island, and only 30 percent of it was injected underground, falling far short of Chevron's 5-year requirement, and resulting in a serious increase in its anticipated emissions.[3] In the six years since export of LNG commenced from the Gorgon Project, 20.4 million tonnes of CO_2 has been extracted but only 6.5 million tonnes has been stored under the island.[4]

Climate Change

Recommendation 2: The Federal government should clarify what ramifications are of the passing of the Bill on Australia's greenhouse emission inventory, and therefore our compliance under the Paris Agreement.

Recommendation 3: Before passing this Bill, the Federal Government provide examples of successful, commercial scale, cost-effective seabed CCS.

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[1] https://www.iea.org/reports/net-zero-by-2050
[2] https://www.theguardian.com/environment/2023/may/18/darwins-sustainable-middle-arm-development-is-key-to-huge-fossil-fuel-projects-documents-show
[3] https://www.boilingcold.com.au/times-up-on-gorgons-five-years-of-carbon-storage-failure/
[4] https://theconversation.com/australia-has-introduced-a-new-bill-that-will-allow-us-to-ship-carbon-emissions-overseas-heres-why-thats-not-a-great-idea-208456

Recommendation 4: While we do not support this bill, amend the Bill to include a provision that no public funding is to go into carbon capture and storage.

ACF has a long-held position that CCS should not be considered a climate solution for the fossil fuel industry and has no role in the Australian energy system. CCS is unproven, in terms of both permanence and percentage of CO_2 capture, and is unnecessary with a range of existing decarbonisation technologies. The majority of industry's emissions can be reduced through other means such as renewable energy, electrification, energy efficiency, the application of 'circular economy' principles (reducing waste and the emissions in production and consumption of products) and 100% renewable hydrogen. In fact, the 2019 Resolution allowing for provisional acceptance of the 2009 amendment "*recognizes that carbon dioxide capture and sequestration should not be considered as a substitute to other measures to reduce carbon dioxide emissions, but considers such sequestration as one of a portfolio of options to reduce levels of atmospheric carbon dioxide and as an important interim solution.*"[5]

Carbon Capture and Storage is a false solution to climate change, and remains unproven at scale. According to the Global CCS Institute, there were 30 CCS projects in operation internationally last year, with a combined maximum capacity of 42m tonnes of CO_2 a year.[6] This only represents around 0.1% of global emissions. It said 11 more were under construction. Allowing CCS to extend the longevity of the gas industry would have perverse economic, environmental and social impacts.

Furthermore, ACF does not support the use of public funds to pay for CCS in relation to any element of the fossil fuel industry, or to prolong the mining or use of coal, oil or gas. This includes public money going to the Middle-Arm development, which currently has significant connections to the gas industry.

Passing this Bill will enable fossil fuel projects related to Middle Arm. For example, Santos' proposed highly polluting Barossa gasfield in the Northern Territory includes plans to export CO_2 from the federally funded ($1.5B) CCS hub at Middle Arm in Darwin Harbour, where the intention is to pipe CO_2 out to East Timorese waters for injection into the depleted Bayu Undan gasfield. Other transboundary projects using Middle Arm are likely to be enabled if this bill is passed.

It is also unclear how sea dumping of CO_2 as a result of this Bill will affect Australia's greenhouse emission inventory and therefore our compliance under both the Paris Agreement and our legislated emission reduction targets. In their submission to the Inquiry to the London Protocol earlier this year,[7] DCCEEW state:

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[5] https://ablawg.ca/wp-content/uploads/2019/12/LC41wp.6_octore-2019_report-of-drafting-group.pdf
[6] https://www.theguardian.com/australia-news/2023/jun/30/australian-sea-dumping-law-changes-condemned-amid-warnings-of-gas-industry-expansion
[7] 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),

> *"The UNFCCC and the Paris Agreement require a Party to report…the amounts of CO_2 that it imports and exports for the purposes of CCS, along with any emissions from leaks and vents occurring in its jurisdiction. Abatement is considered to occur at the point of capture of CO_2 for CCS. As a result, the reduction in emissions is reported by the Party where capture occurs, and any subsequent leaks or vents during transport, injection, and storage, are accounted for as a new emissions source in the country in which they occur"*…and *"Australia would need to account for any releases of CO2 that occurred within its jurisdiction during the sequestering process (including transport, injection or in long-term storage) in Australia's National Greenhouse Accounts (NGA)."*[8]

This suggests Australia would have to take ownership of the emissions from other countries including any potential leaks or sequestration failures. That is, we would have to mitigate on behalf of CO_2 exporting countries to reach our Paris and legislated emission reduction targets.

Risk Assessment

Recommendation 5: While we do not support this bill, amend the Bill to mandate environmental impact assessment to be completed for carbon capture and storage import and export.

Recommendation 6: While we do not support this bill, amend the Bill to mandate compliance with both the "*Risk Assessment and Management Framework for CO_2 Sequestration in Sub-Seabed Geological Structures*" and the "*Specific Guidelines on Assessment of CO_2 Streams for Disposal into Sub-Seabed Geological Formations* (the Specific Guidelines)".

In its current form, the Bill fails to adequately assess and manage risk of failure to sequester CO_2, contamination by other materials, or environmental impacts. These amendments enable the export of CO_2 streams for CCS via a permit granted by the Australian Minister for the Environment, listing some high-level matters for the Minister to consider, therefore lacking robust stringent requirements or frameworks for the Minister to make this decision.

Contracting Parties have previously developed the "*Risk Assessment and Management Framework for CO_2 Sequestration in Sub-Seabed Geological Structures*"[9] to ensure compatibility with Annex 2 to the London Protocol. Compliance with the Framework however, is not referred to in the Bill, nor required.

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https://www.aph.gov.au/Parliamentary_Business/Committees/House/Climate_Change_Energy_Environment_and_Water/LondonProtocol

[8] https://www.aph.gov.au/Parliamentary_Business/Committees/House/Climate_Change_Energy_Environment_and_Water/LondonProtocol/Submissions

[9] https://www.imo.org/en/OurWork/Environment/Pages/CCS-Default.aspx

Furthermore, the Contracting Parties have also adopted the "*Specific Guidelines on Assessment of CO2 Streams for Disposal into Sub-Seabed Geological Formations* (the Specific Guidelines)". These guidelines aim to provide for the assessments and considerations required in issuing a permit. They address CO_2 stream characterization, site selection and characterization, environmental impact assessment, risk assessment, monitoring, mitigation and remediation plans, and risk management. Similar to the Risk Assessment and Management Framework, compliance with the Specific Guidelines is not referred to in the Bill, nor required.

ACF also notes that in the inquiry to the 2009 and 2013 amendments, that the Department of Climate Change, Energy, the Environment and Water (DCCEEW) suggested that a "precautionary approach" will be taken, and that the 2013 "amendment is expressly focused on large scale scientific experimentation,[10] not necessarily ready for commercial operations.

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10 https://parlinfo.aph.gov.au/parlInfo/download/committees/reportrep/RB000131/toc_pdf/Inquiryintothe2009and2013amendmentstothe1996ProtocoltotheConventiononthePreventionofMarinePollutionbyDumpingofWastesandOtherMatter,1972(LondonProtocol).pdf