

Level 2, 60 Leicester Street, Carlton, Victoria 3053



To: Referrals Gateway, Environment Assessment Branch  
Department of Climate Change, Energy, the Environment and Water

18 March 2024

Dear Minister,

**Re: Proposed Action 02151 South East Australia Carbon Capture and Storage Project, Onshore and State Waters and Proposed Action 02149 South East Australia Carbon Capture and Storage Project, Commonwealth Waters**

We appreciate the opportunity to provide comment on the assessment of this proposed action under the EPBC Act. For consistency, our submission is the same for each of the two referrals. Our points below relate to either or both parts of the South East Australia Carbon Capture and Storage project.

Environment Victoria is the leading not-for-profit environmental advocacy organisation in Victoria. With 40 grassroots member groups and over 200,000 individual supporters, we've been representing Victorian communities on environmental matters for over 50 years. Through advocacy, education and empowerment, Environment Victoria seeks significant and enduring solutions that will safeguard the environment and future wellbeing of all Victorians.

**The proposed action should be assessed as a controlled action under the EPBC Act** because it has uncertain and potentially significant impacts on matters of national environmental significance, as follows:

Impacts on the pygmy blue whale and southern right whale

- Both whales are endangered species and the proposed action occurs within a Biologically Important Area (BIA) known to be used by pygmy blue whales for foraging, and by southern right whales for migration. This is the case for both State and Commonwealth waters.<sup>1</sup>
- Carbon dioxide toxicity and localised ocean acidification may occur when pipes or storage leak.<sup>2</sup> These risks are novel and uncertain<sup>3</sup>, and require more thorough assessment to ensure compliance with the relevant Conservation Management Plans.
- Carbon capture and storage is likely to require long-term monitoring of the reinjected plume into the storage reservoir, which is likely to require seismic surveys over the life of the project.<sup>4</sup> Noise from seismic surveys is one of the highest-rated threats to both whale species. The referral for the proposed action does not consider the impacts of seismic surveys.

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<sup>1</sup> National Conservation Values Atlas

<sup>2</sup> Referral 02149 p.21

<sup>3</sup> DCCEEW, Letter obtained via FOI LEX-75951 Document 2, p.259  
<https://www.dcceew.gov.au/sites/default/files/documents/75951.pdf>

<sup>4</sup> DCCEEW FOI p.260

- Further to the previous point, the Conservation Management Plan for the Blue Whale stipulates that "Anthropogenic noise in biologically important areas will be managed such that any blue whale continues to utilise the area without injury, and is not displaced from a foraging area". The referral has not provided sufficient information to demonstrate that the referred activity is not inconsistent with the recovery plan for this species.
- There is a risk of mass carbon dioxide leakage, which contributes to climate variability and change. This is identified as a highly-rated threat to both whale species as it can lead to ocean temperature increases, changes to circulation patterns ocean acidification and food availability.<sup>5</sup> For southern right whales, there is evidence that climate change also affects reproductive output.<sup>6</sup> Risks of leakages are uncertain because offshore CCS is complex to execute and the technology is in its infancy.<sup>7</sup> Furthermore, while CCS is intended as permanent storage, the referral does not provide detail of ongoing monitoring and management of carbon dioxide.

#### Impacts on threatened species, Ramsar wetlands and human health

- The referral briefly notes the risk of pipeline rupture and deems that no risk assessment is necessary.<sup>8</sup> However, carbon dioxide is known to cause pipeline ruptures including ductile fractures that can destroy long sections of pipeline.<sup>9</sup>
- The risk is greater because the proposed action uses an existing pipeline that was not built to transport carbon dioxide, and because the intent is to allow injection and storage of carbon dioxide from third-party sources, which increases the likelihood of impurities that cause corrosion.
- Carbon dioxide is heavier than air and rapid releases can cause clouds that flow considerable distances and settle in low areas. Oxygen displacement caused by carbon dioxide risks asphyxiation humans and other terrestrial species; it can also shut down fuel-burning emergency response vehicles and backup generators needed in the event of a rupture.<sup>10</sup>
- Threatened terrestrial species at the project site include endangered species (swamp skink and Martin's toadlet) and vulnerable species (New Holland mouse, green and golden bell frog and growling grass frog).<sup>11</sup> The pipeline also crosses the Gippsland Lakes Ramsar wetlands.
- The proposed action requires a full risk assessment including carbon dioxide plume modelling in order to assess environmental and human impacts and put in place sufficient response plans.

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<sup>5</sup> Conservation Management Plan for the Blue Whale 2015-2025, p.3

<sup>6</sup> Conservation Management Plan for the Southern Right Whale 2011-2021, p.5

<sup>7</sup> DCCEEW FOI p.260

<sup>8</sup> Referral 02151 pp.17-18

<sup>9</sup> Pipeline Safety Trust, 2022, p.3 <https://pstrust.org/wp-content/uploads/2022/03/CO2-Pipeline-Backgrounder-Final.pdf>

<sup>10</sup> Pipeline Safety Trust, p.2

<sup>11</sup> Referral 02151 p.17

**The proposed action needs to be assessed using an Environmental Impact Statement** because it will have significant impacts on multiple protected matters, is novel and complex, and there is uncertainty regarding impacts.

Furthermore, the referral omits discussion of three important aspects of the proposed action:

- Seismic surveys, which are likely to be necessary over the life of the project.
- Risk assessment of land-side pipeline rupture and carbon dioxide plume formation.
- Monitoring and management of carbon dioxide, which will be required both through the operational phase and ongoing as befitting a permanent storage.

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