



Environmental Defenders Office

30 September 2022

Independent Expert Panel
Independent Review of Australian Carbon Credit Units

By email: ACCUreview@dcceew.gov.au

Dear Panel,

EDO submission to the Independent Review of Australian Carbon Credit Units

Environmental Defenders Office (**EDO**) welcomes the opportunity to make a submission to the Independent Review of Australian Carbon Credit Units (**ACCUs**).

Our attached submission addresses the following key issues (aligned with the Guiding Questions set out in the ACCU Review consultation paper):

- Experience with the Emissions Reduction Fund (**ERF**) scheme
- Governance of the ERF
- Rigour and integrity of ERF methods and projects
- Co-benefits and other impacts
- Future

In summary, EDO is concerned that recent analysis by various experts highlights significant integrity issues with various ERF methods. These concerns, together with concerns about the governance of the ERF, undermine the legitimacy of the ERF scheme and ACCUs.

More broadly, EDO is concerned that the increasing use of carbon offsets undermines the urgent task of reducing fossil fuel emissions to limit global warming consistent with international agreement, particularly where carbon offsets are shown to be falling short of best practice. In our submission, we raise concerns and examples of increasing corporate reliance on offsetting in lieu of actual direct emissions reduction.

The Australian Government should not be relying on the ERF, or market mechanisms alone, to drive the real and genuine emissions reduction that is needed to achieve real net zero greenhouse gas emissions. The Australian Government must build on the foundations of the *Climate Change Act 2022* and embed effective tools to reduce emissions across the board. With a clear legislative emissions reduction target set, there is considerable scope to design policy settings and legal mechanisms that galvanise emissions reduction across sectors, enhance adaptation, and facilitate the energy transition.

Offsetting should be a last resort once emissions have been avoided and mitigated, rather than the default option used to justify continued and increasing emissions.

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At a minimum, the regulatory framework for carbon offsetting should be significantly strengthened to establish clear integrity and accountability requirements including for a transparent, independent and well-resourced regulatory body; robust criteria and independent oversight to certify the legitimacy of offsetting projects; and clear limits or caps on the use of offsets. Once the significant integrity and accountability issues have been addressed, opportunities to maximise co-benefits should be explored further.

Specifically in terms of **governance**, we encourage the Review to make recommendations to improve the independence, transparency, role clarity and the governance of the ERF to ensure the integrity of ACCUs and reduce role conflicts. We would also welcome recommendations to ensure independent experts and scientists develop and review methods, that are not connected with industry.

Regarding the **rigour and integrity of ERF methods and projects**, we encourage the Review to make specific recommendations to: establish clear mandatory criteria and definitions to ensure offsets are real and additional; ensure independent expert development and oversight of methods – at arms-length from industry; clear accounting provisions, for example, to prevent double counting; and requirements for full disclosure and transparency of detailed information on projects for verifying ACCUs.

In relation to **co-benefits and other impacts** we encourage the Review to make recommendations in relation to ensuring: co-benefit protocols align with best practice; the full range of real and genuine environmental social, and cultural benefits can be recognised; there are clear requirements to effectively monitor and report on the outcomes of co-benefit schemes; and there is consistency across jurisdictions in recognising co-benefits.

The role of carbon offsets within the Australian climate policy and regulatory landscape must be clearly defined and appropriately limited to ensure we can reach real net zero emissions.

For further information, please contact rachel.walmsley@edo.org.au or (02) 9262 6989.

Yours sincerely,

Environmental Defenders Office



Rachel Walmsley

Head of Policy & Law Reform

APPENDIX: EDO Submission

Experience with the ERF scheme

While EDO does not have experience with the ERF as a participant or service provider, we have a strong interest in the role and implementation of the ERF in the context of Australia's policy response to climate change. In particular, the ERF and ACCUs are often used as a basis for many companies net zero emissions plans. In order for consumers and investors to understand the basis of such claims it is vital for ACCUs to have integrity and produce real emissions reductions. It will also be important to ensure that there is consistency with any findings of the UN High Level Expert group on Net Zero emissions Commitments, and the role of offsets in any such commitments.¹

In our experience working with EDO clients and the broader community, we understand there are significant concerns about the reliance on the ERF and ACCUs as one of Australia's key mechanisms for emissions reduction. In particular, concerns have been raised about the integrity of ACCUs, and more broadly, the overreliance on carbon offsets and the failure of the ERF to deliver substantial reductions in emissions.

It is within this context that we provide our more substantive comments below.

Governance of the Emissions Reduction Fund

The governance of the ERF strongly is linked to the integrity of ACCUs. Real or perceived conflicts of interest, and bias or lack of independence can undermine the scheme and the integrity of ACCUs.

One key criticism of the ERF relates to the conflicting roles of the Clean Energy Regulator. It is responsible for all aspects of the scheme, including administration and enforcement, developing ERF methods and purchasing ACCUs on behalf of government. There can be direct conflicts between these various roles. There are also issues associated with sector or industry specific regulation rather than regulation by a broader body such as the ACCC that is less prone to regulatory capture.²

We note that the potential conflict of one entity or agency having a dual role of both developing rules/methods and also enforcement, has arisen in other environmental contexts. For example, in the context of water management, it was necessary to separate functions between the Murray Darling Basin Authority who develops the Basin Plan and the enforcement functions undertaken by the Inspector-General of Water Compliance. More broadly, the Australian Government has responded to calls to establish an independent national EPA to provide strong independent environmental regulation.³

Concerns about the integrity of ERF governance have been heightened by recent criticism of the Clean Energy Regulator, as well as the Emissions Reduction Assurance Committee (**ERAC**) and the former Department of Industry, Science, Energy and Resources. For example:

¹ See also: <https://www.edo.org.au/publication/edo-submission-to-the-un-high-level-expert-group-on-the-net-zero-emissions-commitments-of-non-state-entities/>

² See: <https://www.accc.gov.au/media-release/accc-cautions-against-industry-specific-regulation-in-energy-markets>

³ See also: [New report: Implementing effective independent Environmental Protection Agencies in Australia - Environmental Defenders Office \(edo.org.au\)](#)

- When the Clean Energy Regulator sought to discredit TAI and ACF analysis of the ‘avoided deforestation method’, TAI responded, noting that:

*“Regulators are meant to be impartial and at arm’s length to the industries they regulate. The Clean Energy Regulator seemingly sees its role as defending the interests of the carbon industry at all costs and making methods that generate credits for non-existent abatement”.*⁴

- When raising concerns regarding the integrity of ACCUs Professor Macintosh stated that an investigation needs to be conducted into the CER, ERAC and the former Department of Industry, Science, Energy and Resources, alleging that:

*“All three organisations have ignored and sought to suppress a material integrity issue associated with the ERF’s most popular method in circumstances where they knew, or should have known, that it was distorting the ACCU market”.*⁵

We encourage the Review to make specific **recommendations** to improve the independence, transparency, role clarity and the governance of the ERF when interrogating the integrity of ACCUs. We would also welcome recommendations to ensure independent experts and scientists develop and review methods, that are not connected with industry.

Rigour and integrity of ERF methods and projects

Substantial concerns have been raised about the integrity of ERF methods, and therefore ACCUs certified using those methods. For example:

- In 2021, the Australia Institute (**TAI**) and Australian Conservation Foundation (**ACF**) research found that ACCUs generated by ‘avoided deforestation’ projects are largely non-additional.⁶ Avoided deforestation projects make up about 20% of issued ACCUs.
- In March 2022, Professor Andrew Macintosh, the former head of Emissions Reduction Assurance Committee (**ERAC**), called the ACCU market “largely a sham”, stating that 70-80% of ACCUs are not real or additional.⁷
- Subsequent research from the Australian National University (**ANU**) reaffirmed that popular ACCU credited projects, such as those based on human-induced regeneration, landfill gas and plantation forestry, were not delivering real or additional abatement.⁸

⁴ The Australia Institute, *Statement in response to the Clean Energy Regulator*, 23 September 2021, available at <https://australiainstitute.org.au/post/statement-in-response-to-the-clean-energy-regulator/>

⁵ A Macintosh, A., Butler, D., Ansell, D. (2022) *Measurement Error in the Emissions Reduction Fund’s Human-induced Regeneration (HIR) Method*. The Australian National University, Canberra, p 4, available at https://law.anu.edu.au/sites/all/files/measurement_error_in_hir_method_14_march_2022.pdf

⁶ TAI and ACF, *Non-additionality in the Emissions Reduction Fund’s Avoided Deforestation Method*, September 2021, available at https://australiainstitute.org.au/wp-content/uploads/2021/09/ACF-Aust-Institute_integrity-avoided_deforestation_report_FINAL_WEB.pdf

⁷ Adam Morton, *The Guardian, Australia’s carbon credit scheme ‘largely a sham’, says whistleblower who tried to rein it in* (23 March 2022), available at <https://www.theguardian.com/environment/2022/mar/23/australias-carbon-credit-scheme-largely-a-sham-says-whistleblower-who-tried-to-rein-it-in>

⁸ See, in particular the following publications available from the ANU website: <https://law.anu.edu.au/research/publications>

- In 2021, the Morrison Government approved an ERF method to credit abatement from new carbon capture and storage technology (**CCS**) projects.⁹ The IPCC AR6 Report has confirmed that CCS involves significant risks, including “technological, economic, institutional, ecological-environmental, and socio-cultural barriers.” It states that, “Currently, global rates of CCS deployment are far below those in modelled pathways limiting global warming to 1.5°C or 2°C.”¹⁰ Commensurately, CCS projects in Australia, such as the Gorgon gas projects in Western Australia, have so far been underperforming by about 50%.¹¹

These concerns highlight the real risk that emissions reductions delivered by the ERF are illusory; that is, they are neither real (do not offset emissions) or additional (emissions would have been prevented anyway). We encourage the Review to make specific **recommendations** to: establish clear mandatory criteria to ensure offsets are real and additional; ensure independent expert development and oversight of methods – at arms-length from industry; and requirements for full disclosure and transparency of detailed information on projects for verifying ACCUs.

Co-benefits and other impacts

In addition to carbon abatement, projects undertaken under the ERF, particularly land sector projects, have the potential to provide additional benefits, including environmental, economic, social and cultural benefits – often referred to as co-benefits. We support further analysis of co-benefits to identify opportunities and ensure any co-benefits are real and genuine.

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- Macintosh, A., Butler, D., Evans, M. C., Larraondo, P., Ansell, D., Gibbons, P. (2022) *The ERF's Human-induced Regeneration (HIR): What the Beare and Chambers Report Really Found and a Critique of its Method*. The Australian National University, Canberra.
 - Macintosh, A., Butler, D., Ansell, D. (2022) *Measurement Error in the Emissions Reduction Fund's Human-induced Regeneration (HIR) Method*. The Australian National University, Canberra.
 - Macintosh, A. (2022) *The Emissions Reduction Fund's Landfill Gas Method: An Assessment of its Integrity*. The Australian National University, Canberra.
 - Macintosh, A., Butler, D., Ansell, D., Waschka, M. (2022) *The Emissions Reduction Fund (ERF): Problems and Solutions*. The Australian National University, Canberra.
 - Macintosh, A., Butler, D., Evans, M. C., Ansell, D., Waschka, M. (2022) *Fixing the Integrity Problems with Australia's Carbon Market*. The Australian National University, Canberra.
 - Macintosh, A., Butler, D., Evans, M. C., Larraondo, P., Ansell, D., Waschka, M. (2022) *Integrity and the ERF's Human-Induced Regeneration Method: The Additionality Problem Explained*. The Australian National University, Canberra.
 - Macintosh, A., Butler, D., Evans, M. C., Larraondo, P., Ansell, D., Waschka, M. (2022) *Integrity and the ERF's Human-Induced Regeneration Method: The Measurement Problem Explained*. The Australian National University, Canberra.
 - Macintosh, A., Butler, D., Ansell, D., Waschka, M. (2022) *Integrity Problems with the ERF's 2022 Plantation Forestry Method*. The Australian National University, Canberra.
 - Macintosh, A. (2022) *Restoring Integrity to the ERF's Landfill Gas Method*. The Australian National University, Canberra.

⁹ The Hon Angus Taylor MP, *New ERF method and 2022 priorities announced*, 1 October 2021, available at <https://www.minister.industry.gov.au/ministers/taylor/media-releases/new-erf-method-and-2022-priorities-announced>

¹⁰ IPCC AR6, WIII, Summary for Policymakers, 38.

¹¹ IEEFA, *If Chevron, Exxon and Shell can't get Gorgon's carbon capture and storage to work, who can?*, 26 April 2022, available at <https://ieefa.org/articles/if-chevron-exxon-and-shell-cant-get-gorgons-carbon-capture-and-storage-work-who-can>

We note that co-benefits are currently not recognised under the ERF framework and *Carbon Credits (Carbon Farming Initiative) Act 2011*. However, the Australian Government has set up a Carbon + Biodiversity Pilot program. The pilot program rewards farmers for undertaking plantings that deliver carbon sequestration by providing additional payments for also maximising biodiversity values (e.g. by planting a mix of species and managing that vegetation). Projects must be eligible for ACCUs under the ERF and meet the relevant Carbon + Biodiversity Pilot program biodiversity protocols for the relevant region.¹² Landholders can sell ACCUs and receive an additional payment for the biodiversity benefits associated with meeting the biodiversity protocol.

Other jurisdictions have also established, or are looking at establishing, co-benefit schemes that provide a pathway for the co-benefits of ERF projects to be recognised. For example:

- Funding under the Queensland Government's Land Restoration Fund (**LRF**) is available for land sector carbon farming projects that deliver both ACCUs and other priority environmental, socio-economic and First Nations co-benefits. Projects must be eligible for ACCUs under the ERF, and also meet the LRF co-benefits standards¹³ for environmental, socio-economic and First Nations co-benefits. The LRF will pay a premium price for the ACCUs (i.e., a higher price than what would be available to landholders through ERF reverse auctions for ACCUs), in recognition of the additional co-benefits.
- Under the Western Australian Carbon Farming and Land Restoration Program (**CFLRP**), recipients receive upfront funding for new carbon farming projects in return for an agreed number of ACCUs. The price paid for the ACCUs will incorporate the value of the project's co-benefits (i.e. will be above market price). Projects must meet the Priority Investment Co-benefits Standard.¹⁴

Co-benefit models are appealing as they encourage both improved climate and biodiversity outcomes, and can provide a greater incentive for landholders to engage in schemes, as they are likely to receive greater reward for having both carbon and biodiversity outcomes recognised. Traditionally, co-benefit projects recognise outcomes for both the climate (e.g. by reducing emissions in the land-use, land-use change and forestry sector), and biodiversity (by conserving and improving biodiversity values, including vegetation, soil and water quality). Some models, such as the LRF Co-benefits Standard¹⁵ also recognise socio-economic co-benefits and First Nations co-benefits.

Building on the Carbon + Biodiversity Pilot program, there is an opportunity for the Australian Government to consider how the ERF framework can recognise and support co-benefits. However, we would **recommend** against extending the framework in this way until current integrity issues are properly addressed and resolved, and until it can be clearly demonstrated that any co-benefits are real and genuine.

¹² See <https://www.awe.gov.au/agriculture-land/farm-food-drought/natural-resources/landcare/sustaining-future-australian-farming/carbon-biodiversity-pilot>

¹³ See https://www.qld.gov.au/_data/assets/pdf_file/0025/116548/lrf-co-benefits-standard.pdf

¹⁴ See <https://www.agric.wa.gov.au/sites/gateway/files/Priority%20Investment%20Co-Benefits%20Standard.pdf>

¹⁵ See https://www.qld.gov.au/_data/assets/pdf_file/0025/116548/lrf-co-benefits-standard.pdf

Consideration also needs to be given to how the ERF framework may interact with the Australian Government's **proposed biodiversity certificates market**.¹⁶ The proposed biodiversity market framework is intended to facilitate investment in conservation and restoration. It will establish a mechanism for landholders to be rewarded for conservation action – by issuing certificates that can be sold on the private market to companies wanting to invest in nature and enhance their environmental credentials. At this stage it is unclear whether the biodiversity market framework will be set up to accommodate biodiversity offsetting. While the proposed biodiversity market framework is expected to be modelled off the *Carbon Credits (Carbon Farming Initiative) Act 2011*, it is also unclear what, if any, interaction there will be between two frameworks. EDO's preliminary feedback on the proposed biodiversity market framework is set out in our recent submission.¹⁷

Recognising our concerns, given this review is specifically looking into opportunities to maximise non-carbon benefits of projects, we **recommend** the following broad feedback that should be considered in the development of any co-benefit scheme:

- **Co-benefit protocols must align with best practice:** Currently each existing co-benefit scheme has its own co-benefit protocol that establishes eligibility criteria that must be satisfied. The carbon component of each scheme relies on the Australian Government's ERF framework. While the ERF framework has a legislated process for developing new ERF methods, the development of each co-benefit protocol is unregulated. Therefore, there is nothing to ensure the integrity of co-benefit protocols. At a minimum, co-benefit protocols must be evidence based and align with best practice. It may also be beneficial to create consistency across jurisdictions (see below).
- **All environmental benefits should be recognised:** While colloquially co-benefit protocols are referred to as 'biodiversity protocols', co-benefit schemes should aim to recognise a broad range of environmental benefits and ecosystem services. The LRF Co-benefits Standard¹⁸ includes seven *environmental* co-benefit classes that can be claimed and verified under the Standard, namely: soil, the Great Barrier Reef, wetlands, coastal ecosystems, threatened ecosystems, threatened wildlife (including plants) and native vegetation; as well as socio-economic benefits (see below). There are a range of additional environmental benefits that could and should be recognised, including but not limited to: soil health, water quality, ecosystem health and climate resilience.
- **Social and cultural benefits of projects could be recognised:** Co-benefit schemes do not need to be limited to delivering only carbon and biodiversity benefits. For example, the LRF Co-benefits Standard¹⁹ established under the Queensland LRF includes criteria that also recognise:
 - Socio-economic benefits, being benefits for a person, community or regional economy from a project located close to that community or within that region. Such benefits may include employment opportunities and/or skills development; community and/or socio-economic resilience; improved environmental

¹⁶ See <https://www.pm.gov.au/media/biodiversity-certificates-increase-native-habitat-and-support-australian-landholders>

¹⁷ EDO, *Submission on the proposed Market for Biodiversity*, 16 September 2022, available at <https://www.edo.org.au/publication/edo-submission-on-the-proposed-market-for-biodiversity/>

¹⁸ See https://www.qld.gov.au/_data/assets/pdf_file/0025/116548/lrf-co-benefits-standard.pdf

¹⁹ See https://www.qld.gov.au/_data/assets/pdf_file/0025/116548/lrf-co-benefits-standard.pdf

connectivity; and benefits linked to cultural and ethnic diversity and/or human rights; and

- First Nations co-benefits, which encompass a broad range of benefits including customary, cultural, economic and business development benefits.

Schemes that seek to recognise social-economic and First Nations benefit schemes should be co-designed with First Nations.

- **Clear processes should be put in place to effectively monitor and report on the outcomes of co-benefit schemes:** There are still many uncertainties around the extent to which co-benefit schemes can drive genuine enhanced environment stewardship. To address this, there should be clear requirements for monitoring and reporting on the effectiveness of co-benefit schemes, so that there is a better understanding of how these schemes can be improved and whether they can deliver genuine environmental outcomes.
- **There is consistency across jurisdictions:** Co-benefit protocols differ between jurisdictions, and are either in development or absent in some jurisdictions. It would be beneficial to develop a consistent, centrally regulated framework for identifying co-benefits. This would improve consistency across jurisdictions, ensure integrity of co-benefit standards, create certainty for investors, and reduce administrative duplication. However, consideration would need to be given to appropriate funding models, and who would purchase centrally regulated co-benefit credits.

Future

While a key aspect of this review is to consider the integrity of ACCUs issued under the *Carbon Credits (Carbon Farming Initiative) Act 2011*, the Review is also tasked at looking into the broader impacts of activities incentivised under Australia's carbon crediting framework.

EDO is concerned that heavy reliance on offsets will undermine direct actual emissions reduction.

The ERF framework is, in essence, an offsets scheme. The increasing use of carbon offsets undermines the urgent task of reducing fossil fuel emissions to limit global warming consistent with international agreement, particularly where carbon offsets are shown to be falling short of best practice. We note that some companies are relying almost entirely on offsets to meet their emissions reduction targets. For example, in respect of Woodside, analysis by the Australian Centre for Corporate Responsibility (**ACCSR**) concluded that 85% of the 369 ktCo₂-e reduction alleged to have been done by Woodside in 2021 were made by way of offsets.²⁰ In fact, ACCSR concluded that absent reliance on offsets, Woodsides Scope 1 and 2 emissions would actually increase to 2030 as a result of its plans for scaling up of gas projects.²¹

Carbon offsets schemes should not be used as a regulatory tool of first resort. Emissions should first be avoided. If that is not possible, they should be reduced, and only then should offsets be considered. The Net Zero Corporate Standard of the Science-based Targets Initiative does not accept the use of offsets to contribute towards near-term emissions reduction targets, with credits only being accepted in relation to the neutralisation of residual emissions or to finance additional

²⁰ <https://www.accr.org.au/research/woodside-petroleum-ltd-assessment-of-2021-climate-report/>

²¹ Ibid.

climate mitigation beyond absolute reduction targets.²² Similarly, the IGCC states that “over-reliance on offsets and nature-based solutions potentially delays efforts to abate emissions within a company’s value chain and may not account for the limited land and space available to host additional tree coverage or overestimates carbon storage potential.”²³ A UNEP article summarised this well:

*If we are serious about averting catastrophic planetary changes, we need to reduce emissions by 45 per cent by 2030. Trees planted today can’t grow fast enough to achieve this goal. And carbon offset projects will never be able to curb the emissions growth, while reducing overall emissions, if coal power stations continue to be built and petrol cars continue to be bought, and our growing global population continues to consume as it does today.*²⁴

If used, ‘carbon offsetting’ must be strictly regulated via a robust, science-based scheme, developed with expert, scientific advice that is transparent and verifiable and meets best practice. Inadequately regulated offset schemes could significantly undermine the achievement of emissions reduction targets and therefore must be strictly limited.

Further, the Safeguard Mechanism, originally introduced to ensure emissions reductions achieved under the ERF were not undermined by substantially increased emissions elsewhere in the economy, is also failing to deliver its intended outcomes. ACCU purchase, or surrender will not lead to the emissions reduction that the Safeguard Mechanism needs to meet targets and keep warming to 1.5°C. To avoid fatally undermining the Safeguard Mechanism, hard limits/caps should be placed on the use of offsets, and only offsets with demonstrated integrity should be permitted.

More broadly, if the Australian Government is minded to use market-based mechanism incentivise emission reduction, then in our view, imposing a price on carbon through a robust cap and trade scheme is likely to provide a more effective market-mechanism for reducing greenhouse gas emissions.²⁵ Setting a cap on the use of ACCUs by a facility would protect the Safeguard Mechanism from failures caused by the reliance on ACCUs that lack integrity (and over-reliance on offsets generally). There is precedent for this recommendation in the Gillard Government’s *Clean Energy Act 2011* (Cth), which limited the total number of carbon units in circulation at any given time.²⁶ Further information is set out in EDO’s recent submission in response to the Safeguard Mechanism Reform Consultation Paper.²⁷

²² Science Based Targets initiative. (2021, October). SBTi criteria and recommendation s. (TWG-INF-002) (Version 5.0)[Online]. Available: <https://sciencebasedtargets.org/resources/files/SBTi-criteria.pdf>

²³ IGCC, Corporate Climate Transition Plans: A guide to investor expectations. <https://igcc.org.au/wp-content/uploads/2022/03/IGCC-corporate-transition-plan-investor-expectations.pdf>,

²⁴ <https://www.unep.org/news-and-stories/story/carbon-offsets-are-not-our-get-out-jail-free-card>

²⁵ Generally, cap and trade schemes put a capped limit on total emissions and allocate an allowance of units to participants that are traded within the framework of the scheme. However, various forms of ‘cap and trade’ style schemes have begun incorporating offsetting, by allowing units generated from carbon-sequestration activities (such as carbon farming and avoided deforestation) to be introduced into the framework. In such frameworks, the integrity issues would be equally applicable to land-based carbon sequestration offsets used as part of a cap and trade scheme.

²⁶ *Clean Energy Act 2011* (Cth) (No longer in force) ss 101-102.

²⁷ See also: <https://www.edo.org.au/publication/edo-submission-in-response-to-the-safeguard-mechanism-reform-consultation-paper/>

Ultimately however, the Australian Government should not be relying predominantly on the ERF, or market mechanisms alone, to drive the real and genuine emissions reduction that is needed to achieve real net zero greenhouse gas emissions. There are significant risks associated with offsets if emissions continue to increase. The Intergovernmental Panel on Climate Change (**IPCC**) has specifically said in the Sixth Assessment Report that there are significant risks around use of carbon offset/sinks particularly under scenarios with increasing CO₂ emissions:

While natural land and ocean carbon sinks are projected to take up, in absolute terms, a progressively larger amount of CO₂ under higher compared to lower CO₂ emissions scenarios, they become less effective, that is, the proportion of emissions taken up by land and ocean decrease with increasing cumulative CO₂ emissions. This is projected to result in a higher proportion of emitted CO₂ remaining in the atmosphere (high confidence).²⁸

The *Climate Change Act 2022* (Cth) is a welcome first step to set the path to real net zero, define responsibilities, galvanise transition and incentivise innovation to reduce emissions and limit warming. The Australian Government must build on the foundations of the *Climate Change Act 2022* and embed effective tools to reduce emissions across the board. With a clear legislative emissions reduction target set, there is considerable scope to design policy settings and legal mechanisms that galvanise emissions reduction and incentivise renewable energy transition. There are a range of related legislative reforms needed to reduce emissions across sectors, enhance adaptation, and facilitate the energy transition. For further information see EDO's [Roadmap for Climate Reform](#).²⁹

The role of carbon offsets within the Australian climate policy and regulatory landscape must be clearly defined and appropriately limited to ensure we can reach real net zero emissions.

²⁸ IPCC, Sixth Assessment Report, *Climate Change 2021: The Physical Science Basis*-
https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_SPM.pdf, pg. 20-8.4.1

²⁹ EDO, *A Roadmap for Climate Reform*, <https://www.edo.org.au/publication/a-roadmap-for-climate-reform/>