

SUBMISSION

Submission to the Department of Climate Change, Energy, the Environment and Water

Australian Carbon Credit Units (ACCU) Review Discussion Paper consultation

3 October 2023

The Australian Academy of Technological Sciences and Engineering (ATSE) is a Learned Academy of independent, non-political experts helping Australians understand and use technology to solve complex problems. Bringing together Australia's leading thinkers in applied science, technology and engineering, ATSE provides impartial, practical and evidence-based advice on how to achieve sustainable solutions and advance prosperity.

The reforms resulting from the 2022 Independent Review of Australian Carbon Credit Units (ACCUs) are a welcome opportunity to reset a flawed system that has been compromised by questionable carbon abatement and claims of greenwashing. Australia needs to accelerate its emissions reduction if we are to meet our net zero targets, let alone the carbon reductions needed to keep warming below 1.5°C or even 2°C (Australian Academy of Science 2021; Climate Council 2023; ATSE 2023). Australia now has an opportunity to lead the world in ensuring Australian carbon credits are internationally recognised and reflect genuine, permanent additionality in carbon abatement.

To restore trust in Australia's carbon credits they need to meet the highest international standards and the ACCU principles need to align with these standards. The new Carbon Abatement Integrity Committee must be able to provide independent oversight based on the best scientific evidence available. Publicly publishing data on carbon credits will allow independent experts to verify methodologies and claimed outcomes. This will in-turn support, and be supported by, regular biophysical auditing by independent experts.

ATSE makes the following recommendations to help ensure ACCUs meet the highest international standards:

Recommendation 1: Ensure the Climate Change Authority's Offset Criteria, including permanence and additionality, are reflected within the ACCU Scheme Principles.

Recommendation 2: Require ACCU permanence requirements to extend well beyond the net-zero target date of 2050.

Recommendation 3: Require the Carbon Abatement Integrity Committee to have functional independence from other administrators of ACCUs.

Recommendation 4: Ensure ACCU data is made publicly available and ACCUs are subject to regular independent biophysical audits, with the real prospect of withdrawal if auditing dictates.

Basing the principles of ACCUs around international best practice

ATSE supports the recommendations of the Independent Review into ACCUs and welcomes the Australian Government's decision to accept all 16 of the Review's recommendations. As the review found, interpreting the Offset Integrity Standards is complex and leads to differing judgements and expectations (Chubb et al. 2022). For example, 20% of all ACCUs were previously issued were for protecting existing forests against deforestation, despite these measures not reflecting a true addition to total carbon reduction (known as additionality¹; Hemming et al. 2021). While the Minister has rightfully now disallowed ACCUs to be issued for this purpose, more work still needs to be done to ensure clarity around these standards and ensure ACCUs represent the highest quality emission abatement based on real, additional, carbon reductions linked to the best international carbon accounting standards.

Based on international best practice, the Climate Change Authority has recommended ten criteria that provide confidence in carbon credits (Climate Change Authority 2022). The ACCU principles proposed by the department (and associated Offset Integrity Standards) reflect some, but not all, of the Climate Change Authority's criteria. Of those not included in the proposed principles or Offset Integrity Standards, the most concerning is the lack of a focus on permanence – how long carbon remains captured for. ACCUs should aim to capture carbon for as long as possible and support projects that seek to extend carbon abatement permanence.

While ACCUs are currently issued with a "risk of reversal buffer", a carbon accounting technique that reduces the number of carbon credits issued to projects based on the length of time that a project is required to keep carbon out of the atmosphere (i.e. the permanence period), it will be necessary to incentivise longer permanence periods. Carbon abatement projects made today with a 25-year permanence period will no longer be obliged to maintain their projects in 2050 – just as Australia's currently legislated net zero goal comes due. The potential release of carbon from projects with short time commitments will make

¹ Additionality refers to the idea that the mitigation activity would not have taken place in the absence of the incentive created by carbon credits (Environmental Defense Fund et al. 2020). The *Carbon Credits (Carbon Farming Initiative) Act 2011* legislated additionality by requiring projects to be new, be additional to regulatory requirements and be unlikely to be carried out under another program without being eligible for offsets.

it more difficult to reach and maintain net zero emissions by 2050. The importance of project permanence must be reflected within the ACCU principles to ensure the net benefit from emissions reduction efforts continues to grow.

While additionality (another Climate Change Authority criterion) is a legislative requirement, greater focus on this is required, given some of the ways this has been applied. Additionality assessments have sometimes previously failed to account for variations or increases in carbon sequestration that would have occurred naturally. For example, soil carbon sequestration² is highly dependent on rainfall levels, with human-driven land management playing a smaller role (Department of Agriculture and Food 2013). One analysis found that local climates and soil types accounted for four times more change in soil carbon than land use and management (Rabbi et al. 2015). This means that much of the impact of soil carbon sequestration projects is not determined by the land use, but rather by climate effects that naturally occur. This can lead to false additionality, where credits are issued for carbon sequestration that would have occurred naturally. Future assessment of land based ACCU claims must ensure true additionality by accounting for climate effects (compared with established climate averages). Increased weather volatility resulting from a changing climate makes this even more vital.

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Ensuring transparency and effective auditing of ACCUs

ATSE's [previous submission](#) to the ACCU review highlighted the importance of embedding transparency in ACCUs and climate policy more generally. Transparency is central to ensuring national and international trust in the integrity of ACCUs as an effective way of mitigating Australia's carbon emissions. Trust must therefore be made the core of the scheme. Given that carbon credits have been issued previously for dubious and unproven emissions reductions (Packham 27 May 2022), and 78% of carbon credits sold by the largest global traders were likely junk – exaggerating the climate benefits and downplaying environmental harms (Lakhani 20 September 2023), there is reasonable concern over the legitimacy of carbon credits in emissions reduction. Approximately half of all Australians think carbon offsets are a form of greenwashing (The Australia Institute 2023), showing the level of mistrust that has formed in the community. Trust must be restored in Australia's carbon credits - something that can only be achieved through transparency and verifiable evidence.

The development of the proposed Carbon Abatement Integrity Committee is a starting point for this process, allowing for a rigorous and evidence-based scientific assessment of carbon credits. It is essential that this body be functionally independent and led by discipline-based experts in carbon abatement methodologies. Furthermore, the data published on carbon credits should be sufficient to allow a suitably qualified independent expert to repeat the methodology used to allocate the credit and arrive at the same result. However, it is not simply enough to allow independent parties to complete a numerical audit of the data – regular biophysical audits should be conducted to confirm whether projects are achieving the emissions offset they claimed.

Crucially, these requirements must apply to existing projects. Grandfathering of the current requirements will only allow dubious carbon credits to remain in use for longer. This would continue to be a drag on Australia's climate goals and continue to reduce trust in Australia's carbon credit system. Current projects should have the option to engage with these increased transparency requirements or retire their carbon credits.

² For more information on Soil Carbon Sequestration, please see ATSE's [Australia's soil carbon opportunities and risks](#) explainer

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ATSE thanks the Department of Climate Change, Energy, the Environment and Water for the opportunity to respond to ACCU Review Discussion Paper. For further information, please contact academypolicyteam@atse.org.au.

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