

Australian Carbon Credits Units (ACCUs): Thank goodness for the Professor!

Hon Robert Hill AC

Last week was a busy time for the Australian Government in the climate change space. It took a step closer to imposing new mandatory carbon reduction obligations on 215 of Australia's largest industrial emitters under its Safeguard Mechanism, requiring 30% reductions by 2030. This is a heavy impost over a short period of time which could threaten the viability of many of those businesses. Not surprisingly, carbon intense businesses tend to be the most difficult and expensive to abate.

Secondly, it released the Chubb Review endorsing the integrity and efficacy of the Australian Carbon Credit Unit (ACCU) scheme. This Government-assured and regulated market mechanism provides a legitimate alternative path for major emitters to meet at least part of their obligations. It is therefore of great importance.

ACCUs are the Australian Government's primary carbon offset tool. They reflect investment in projects which draw down greenhouse gases from the atmosphere and in some instances function to avoid emissions. Developers earn credits which industry can purchase, thus contributing an offset against their emissions. Each ACCU represents one tonne of carbon dioxide equivalent stored or avoided by a project.

Whilst not all within the climate change world are enthusiastic supporters of carbon dioxide removal (CDR), fearing it becomes an excuse for avoiding the hard tasks of actually reducing emissions, the international community (Article 4 Paris Agreement) has endorsed removing carbon as important and legitimate in achieving climate change goals. In practical terms, Australia cannot achieve its 2030 carbon reduction target without the use of offsets.

Thus when the integrity and efficacy of the Australian offset scheme was recently challenged, the Government promptly and wisely established an independent review to consider the claims. As stated in the terms of reference, the purpose of the review was to ensure that ACCUs and the carbon crediting framework maintain a strong and credible reputation supported by participants, purchasers, and the broader community.

The review, headed by former Chief Scientist, Professor Ian Chubb, found in favour of both the integrity and effectiveness of the scheme. It also usefully made a number of recommendations to improve transparency and better separate the key functions of integrity assurance, regulation, and administration.

Australia's ACCU scheme was established under the *Carbon Credits (Carbon Farming Initiative) Act 2011*. Government would lead in the development of methodologies, to be endorsed by the Minister, within which individual projects might earn carbon credits. Australia was an early mover, and in fact a world leader in development of early methodologies for removal of carbon in the land sector. Maybe this should not be surprising. Even at the time of the Kyoto Climate Change negotiations in 1997, there was noted the unusually high proportion of emissions attributable to Australia, which resulted from broad scale land clearing. Changing land management practices was not only a potential emissions avoidance measure, but could also enable recovery of a portion of the carbon dioxide previously emitted by the sector.

Buying back these credits became the major carbon reduction policy of successive Coalition Governments. But now these credits are needed by corporate Australia, either to meet voluntary carbon reduction targets, or the new mandatory reduction requirements just announced by the Government.

Of the methodologies approved by the Australian Government, through the Clean Energy Regulator, four in particular had been questioned specifically and were put to the review for more detailed examination. They were human induced regeneration, carbon capture and storage, avoided deforestation, and landfill gas recovery. The Australian Academy of Science was also commissioned to assist with this work and has published a separate report.

Human-induced regeneration recognises human activity which results in the regeneration of lost or degraded native forests, giving credits for the carbon removed from the atmosphere and stored in the forest structures. Such activities might be as basic as the removal of livestock, better management of feral animals or weed control. Some 28% of ACCUs have been issued under this method.

Professor Chubb early in his report recognised that “after experimentation and speculation for decades, the only pathway known to science that has the immediate capacity to remove GHG (CO₂) from the atmosphere at scale is photosynthesis”.

The methodology to capture this opportunity was endorsed as sound, with the caution that the review was of the methodology and not particular projects. The Australian Academy of Science was similarly supportive, particularly recognising the co-benefits of this methodology, such as enhancing the socio-economic resilience for individual farming operations and significant potential environmental benefits beyond carbon sequestration.

The avoided deforestation method has been more controversial. This has given credits to proponents with existing land clearing permits, who agree to refrain from exercising such rights. About 21% of ACCUs have been issued under this method, but given the declining number of existing clearing permits, the likelihood of new projects is diminishing. The methodology is due to sunset on 1 April 2025.

Interestingly, the review recommended that consideration be given to new methods that incentivise the maintenance of native vegetation that has the potential to become a forest, as well as maintaining existing forests at risk of land use conversion.

It was hoped lessons learned would be incorporated within the new more sophisticated active land management & agricultural production (AL-MAP) method, currently being developed, which would enable multiple land management activities to be integrated within one project.

The landfill gas method has incentivised the capture and use of methane, thus avoiding uncontrolled emissions of a very potent greenhouse gas. It is therefore an emissions avoidance measure. The review basically supported the methodology, noting that without ACCUs some landfill gas projects may not be financially viable. The Academy particularly noted the co-benefits of energy generation; “non-fossil-based energy sources, especially ones that are packaged alongside other emission reduction activities, can play a critical role in transitioning away from fossil fuels”.

The carbon capture and storage (CCS) Method, gives credits for the capture of greenhouse gasses which would have otherwise been released into the atmosphere, but are instead injected into an underground geological structure for long term storage. Both the review and the Academy accepted the legitimacy of the methodology, with the review saying it is considered to have an “important potential contribution” to limiting the pace and extent of climate change. It did so whilst recognising it was early days, and both engineering and economic challenges remained to be answered. The use of the methodology is expected to be limited to certain hard to abate industries such as oil and gas, electricity generation from fossil fuels and steel and cement production. The review did not address carbon capture use and storage (CCUS) which is subject to a new methodology current being developed.

The Government should be very pleased with its review. Not only did it endorse the integrity and usefulness of the scheme but provided helpful advice to improve internal rigor, reduce risks, and build public confidence through improved transparency. In particular, its advice to amend the methodology-making process by inviting proponents to lead in development of new methodologies is significant. Given the extent of Australia's carbon emission reduction commitments, new and more sophisticated ways of maximising the land sector's carbon reduction potential can contribute to the growth in the ACCU market, which is going to be essential.

The last word belongs to the Academy. The Academy wanted to remind readers of the fact that whilst over the decade of operation, the scheme has become less a climate change instrument and more an industry policy mechanism, the first objective of the Act is nevertheless to remove greenhouse gasses from the atmosphere. That objective, the Academy says, must remain the highest priority.



Hon Robert Hill AC

Robert Hill was Australia's Environment Minister from 1996-2002. He led the Australian delegation at the Kyoto climate change conference and introduced Australia's Renewable Energy Target. He is currently Adjunct Professor in Sustainability at the US Studies Centre at the University of Sydney and Chairman of the Cooperative Research Centre for Low Carbon Living at the University of New South Wales.