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26 September 2022

Dear Professor Chubb

**Re: Independent Review of Australian Carbon Credit Units (2022)**

Thank you for the opportunity to provide feedback on the Independent Review of Carbon credit Units being conducted by Professor Ian Chubb. The Waste Management and Resource Recovery Association of Australia (WMRR) is the national peak body for all stakeholders in the essential waste and resource recovery (WARR) industry. We have more than 2,000 members across the nation, representing the breadth and depth of the sector within business organisations, the three (3) tiers of government, universities, and NGOs. Our members are involved in a range of important WARR activities within the Australian economy, including infrastructure investment and operations, collection, manufacturing of valuable products from resource recovery, as well as responsible management of residual waste including landfilling and energy from waste.

WMRR notes that the purpose of the Australian Carbon Credit Units (ACCUs), is to incentivise change to avoid the release of Greenhouse Gas (GhG) emissions into the atmosphere or remove or sequester carbon from the atmosphere, effectively to drive good behaviours and gain improved environmental outcomes. The goal of the review being to ensure that the ACCU framework are strong and credible, whilst being supported by participants, purchasers and the community.

As the national peak industry body for waste and resource recovery (WARR) sector, we support all efforts to drive improved environmental outcomes and supporting behaviour as we are acutely aware of the problematic contribution that material extraction and poorly managed processing and use of resources has on GhG emissions. As such WMRR welcomes the attention of this government on addressing the issue of emissions, however caution that it is necessary to look at the integrated system within Australia as opposed to individual mechanisms in isolation.

As stated in the *Circularity Gap Report 2022*<sup>1</sup>, the current global linear economy is firmly steering us towards a 3- to 6-degree temperature increase. If the world continues its business-as-usual approach, then it will emit 65 billion tonnes of GhGs in 2030. In 2022 it was calculated that only 8.6% of materials globally were circular, 70% of emissions linked to material handling and use, including extraction, transportation, and processing for use of our phones, clothes, and meals. With 80% of actual emissions being linked to mobility, housing, and nutrition- we need to move the focus on emissions

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<sup>1</sup> [CGR 2022 \(circularity-gap.world\)](https://www.circularity-gap.world/)

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beyond just energy (scope 1 and 2 emissions) if we are serious about hitting Australia's stated 2030 target of 43% reduction in emissions below 2005 levels.

To support Australia's stated emissions reduction target, it will be necessary to create a roadmap for circularity in Australia which requires a complete re-think of how we extract and manage materials to mitigate GhG emissions. We need to move beyond the current list of projects contained within the *National Waste Policy Action Plan 2019 (NWPAP 2019)* to an integrated and evidence led material strategy that focuses on addressing the five (5) priority materials that create the greatest emissions, these being extracted fossil fuels (plastics), organics, textiles, construction, and transportation. In the absence of this, Australia will simply be tinkering with reporting methodologies and not driving towards a low emission future. We need to significantly reduce our material footprint (by as much as 28% globally by 2032 according to the *Circularity Gap*) and create low- intensive systems, technology and thinking that supports this transition.

In WMRR's view, the fact that we now have the Departments of Climate Change, Energy and Environment operating as one (1) Federal Department, presents the strategic opportunity that Australia requires to create a genuine national material strategy that looks at material lifecycle from extraction, design, consumption, and all steps towards ultimate disposal, through the lens of emissions reduction, to both reduce material footprint and genuinely cut emissions. WMRR is calling on this government to move away from the linear NWPAP 2019 and towards a genuine circular strategy that links all aspects of material management with carbon mitigation, like we see in Europe, if Australia is genuine about achieving the *Paris Agreement* targets.

In relation to the specific terms of reference raised by the consultation paper, please note that WMRR has made a number of submissions over recent years as to how the framework could be improved as we believe it does need to be enhanced to be able to be of greater benefit to both the economy and the environment. Australia's total greenhouse gas (GHG) emissions for 2019 were 518.9Mt CO<sub>2</sub>-e, with waste emissions for the year totaling 12.4Mt, accounting for 2.4% of Australia's total CO<sub>2</sub>-e emissions. WMRR believes the sector can significantly reduce our direct emissions and double the amount of ACCUs (to ~10MtCO<sub>2</sub>-e) generated.

Given that the WARR sector is intertwined with all other industries, we also have a huge opportunity to assist the entire supply chain in reducing its carbon footprint. For example, in addition to mitigating our end-of-pipe emissions through landfill diversion, organics processing, and methane recovery, a regenerative economy that is bolstered by re-use, remanufacturing and repair will enhance the reduction of indirect emissions, e.g., through the reduced extraction of virgin materials for product manufacturing, extended product lifespan, and more. The success of creating a regenerative economy in Australia however is linked to the need discussed above of creating a circular roadmap for Australia, which includes carbon mitigation and impacts.

### **Governance of the Scheme**

WMRR believes that deep knowledge of the waste and resource recovery industry in the Emissions Reduction Assurance Committee (ERAC) would assist to ensure that credible and high-integrity ACCUs are generated by the WARR sector. WMRR would also support the rules governing the committee be amended to provide both greater transparency to decision making as well as a clear power to review

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decisions and methodologies. Such a power would also apply to the current “one off” review of credit period extensions, a limitation which does not take into account changing markets and circumstances and has the ability to lead to locked-in decisions which can stifle further investment in carbon abatement.

At present the WARR industry has been asking for methodologies (discussed below) for significant periods to no avail and there appears to be limited opportunities to progress these. We are unclear if this is a resourcing issue for example as we do not have transparency over the method acceptance and development. The proposed method development priorities are limited and at this time do not include any from the WARR sector. This may reflect the lack of understanding as discussed at the outset, of the impact that the WARR sector has on material management and carbon generation. A possible alternative approach to method development could be similar to that adopted by the Carbon Farming Initiative (CFI), which initially had multiple similar methodologies proposed by industry with a kind of rapid iteration/modification process with both industry and the department, enabling clarity of what methods and formulas would be accepted, enabling industry to place emphasis on those areas that would have greatest impact.

At present in relation to ACCUs, if a proponent has a proposed project that could become financially viable with a new methodology, they have no way to assist in advancing that methodology’s development, which means that it cannot be part of any development plan/timeline. This results in these projects often sitting in limbo. WMRR believes that the lack of a clear roadmap as to what will get approved, plus the lack of comprehensive methodologies for the WARR sector, obviously also has a significant impact on scheme participation.

As an alternative to the current opaque and the lack of WARR industry knowledge and evidence, a process could be developed that would enable WARR industry to propose draft, and the either the Department or Clean Energy Regulator (CER) could then adopt, with ERAC acting as a review? Alternatively, a streamlined ERAC process with public written reasons for acceptance/rejection, which would allow proponents to amend and resubmit or other proponents to learn and build on existing modules.

### **Methods under the Scheme**

Australia disposed of 27 million tonnes in 2017-18 to landfills, which along with biological emissions and incineration, emitted more than nine (9) million tonnes of CO<sub>2</sub> equivalent in 2017-18.

#### **1. Landfill Method**

WMRR acknowledges that the *Landfill Gas (Electricity Generation) Methodology* (LFG Method) has played and will continue to play a critical role in ensuring that methane from landfills is successfully prevented from emitting to the atmosphere. Methane is a potent greenhouse gas that is produced by the natural breakdown of waste disposed by Australian households and businesses. Landfill operations have little to no control over waste composition and quantity received, and as industry we are committed to reduce and recover more waste, as well as ensuring that the potent greenhouse gases that landfills produce are captured and destroyed. It is also important to note that landfills typically produce gas for several decades after ceasing to receive waste. The delayed emissions from



legacy wastes and material uncertainty in actual emissions are challenges for cost attribution, investment decisions and infrastructure planning.

Incentivised by ACCUs, landfill operators and specialist biogas companies capture the methane generated and convert it into clean, reliable renewable energy or destroy it using flares. The millions of tonnes of abatement achieved using the LFG Method are real, measured and verified. Indeed, with incentivisation in place, there has been a 22.4% reduction in net emissions from landfills between 2005--2020<sup>[1]</sup>. This incentivisation results in ongoing improvements and higher abatement than would be possible under purely regulatory approaches.

WMRR submits that the ERF's carbon credits scheme is critical to the financial viability of landfill biogas to electricity projects (large and small), given that LFG projects have high ongoing capital and operating costs, operate in volatile electricity markets and the modular nature of landfill biogas to electricity power stations means these projects do not benefit from economies of scale that are common for various other renewable energy projects, such as wind and solar. Given the permanent nature of landfills (even after closure), significant ongoing investment is needed in both power station and gas capture infrastructure, which without ACCUs or significant new cost imposts on ratepayers and business, investment in gas capture infrastructure and power stations would cease and increases in methane emissions would occur, undermining Australia's climate goals.

Australia's ERF carbon framework and LFG Method is key to driving continued emissions reduction outcomes and these need to be protected through the ERF review outcomes to avoid any adverse emissions consequences. Existing protections ensure abatement achieved is additional, high integrity and meets the Offset Integrity Standards (including the use of baselines), and as such, only a portion of physical abatement achieved (around 60%) is rewarded with ACCUs, reflecting a conservative level of regulatory additionality. However, to ensure its integrity (perceived or real) is maintained into the future, particular aspects could be reviewed, such as baselines and frequency of review alongside longer crediting periods. Through any review process, it is essential that the important benefits arising now under the LFG Method for a safer climate future are maintained.

## 2. Additional Method Needs

Looking ahead, as Australia has a desire to increase its landfill diversion rate (we have a national target of 80% diversion by 2030), the improvement and development of new methodologies is urgently required in recognition as discussed above, that the WARR sector has an essential role in managing emissions as part of transitioning to a circular economy, given our sector processes and stores, valuable materials that are vital to a net zero future. ACCUs can be integral to assist proponents with overcoming the investment hurdle by providing a revenue source, which will also serve as a strong incentive for proponents to find solutions to abate greater emissions.

As such, WMRR has advocated for an extension of the crediting periods for both the Alternative Waste Treatment (AWT) and Source Separated Organic Waste (SSOW) methodologies to encourage greater take-up and unlock additional projects, which would lead to greater abatement, infrastructure investment (as the ability to receive ACCUs will mitigate a level of financial risk), and jobs. As both AWT and SSOW projects are long life, high capital assets that divert new tonnes from landfill each year, WMRR recommends that a crediting period of at least 12 years and more than 10 years are

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provided to these methodologies respectively. The key first step would be to allow a process for ERAC to review and reconsider credit period extension decisions made, based on changes to market circumstances.

Expansion of the biomethane package to cover additional processes and feedstocks is also sought given that at present the current biomethane package only covers biomethane arising from existing methods therefore it does not apply to solid or food waste, which does not seem logical (or productive) that these wastes have not been included, given these processes would use biogas to displace natural gas, which is the aim of the package, i.e., to displace fossil fuel-based natural gas with biomethane. There are currently a number of existing AD facilities that utilise this feedstock, e.g., Richgro in WA and Earthpower in NSW, along with others in development, and while government asserts the benefits of biomethane, there remains a policy gap in driving the continuation and development of facilities that will generate biomethane from solid or food waste. We believe that there is an opportunity for the ERF to provide incentives to AD proponents to use biomethane from solid and food wastes, which is lacking in the current package. WMRR would also add that there is a need to pursue inclusion of a broader set of agricultural wastes under the biomethane method package. Further, an obvious gap that needs to be looked at is allowing both the use and generation of biomethane to receive ACCUs.

In 2021 WMRR also advocated for the Clean Energy Regulator to develop an Energy from Waste (EfW) methodology as a matter of urgency. Displacing emissions intensive energy sources with a reliable, low carbon alternative: the current ERF methods do not recognise the displacement of higher emissions intensity energy by the generation of energy through EfW projects as a form of abatement. An EfW method would enable emissions abatement from new and additional generation activities through pathways such as energy derived from organic waste fractions as well as energy derived from non-organic waste fractions.

EfW is a capital-intensive technology, project proponents need to overcome significant investment hurdles. EfW plays an important and complementary role in an integrated WARR system; without EfW, residual waste will end up in landfill, which is a lower order solution than EfW. EfW technology can use residual materials to generate useful energy in the form of electricity, heat, fuel, and other useful by-products and in doing so, captures and uses energy from products otherwise destined for landfill – where decomposing materials produce methane for decades, adding to Australia’s carbon footprint. Methane is 28 times as potent as CO<sub>2</sub> over a 100-year period and as much as 84 times over the next 20-year period. Meaningful urgent action on climate change should prioritise methane reduction activities as they have the most immediate effect.

By incentivising additional WARR recovery activities to gain and attain access to ACCUs, the government can reduce Australia’s reliance on virgin materials and drive greater carbon emissions mitigation. A contemporary and robust carbon framework is required to capture current material management trends (e.g., the federal waste export bans) and innovation, including recognition that a circular economy and closed loop models have driven, and continue to drive, emissions reduction. Given the complexity and gaps in the methodologies that currently exist, consideration possibly should be given to a general “resource recovery” methodology that could encompass all activities that recover resources, including recycling, composting, energy recovery, etc that not only assist in

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meeting the national target by 2030 of 80% diversion from landfill, but would also assist other industries in their decarbonising efforts, given that we are generally the recipients of their materials (ie waste).

### **Scheme Participation**

The scheme at present is complex and the requirement to register before commencing the project makes it very challenging for WARR and local government clients to access. For example, under the SSO method, WMRR would submit the lack of take up is due to the complexity/ interaction of the ERF method development/ eligibility/ registration requirements with the council/ contractor/ tender process means that very few projects have been registered and generated credits, despite the same period.

Further the complexity associated with who actually owns the credit and the ease of access (local councils find them very cumbersome to administer), WMRR believes is also hampering participation. With the proposed move towards collecting commercial food waste by industry, this is a great opportunity to reduce food waste from landfill, however the complexity of ACCUs would arguably mean every commercial premise would need to register, which is simply not going to happen. The complex web of “who owns the credits”? “Is it eligible?” “Who can/should register the project”, needs to be simplified in order to be readily and easily accessed by both small businesses and local councils in particular, but arguably for all that are prepared to register for the scheme.

### **Scheme Interactions**

Each state’s regulations for waste and carbon management continues to evolve at its own rate, whilst this is a positive, it often occurs without clear interaction between other jurisdictional policy, or with the critical role that ACCUs under the ERF are successfully playing. The interacting schemes (State vs Federal regulation, ACCU or other schemes) should recognise and consider in their design, the need to complement each other to ensure continuing and increasing, effective methane emission avoidance and improved environmental behaviours. An agreed vision with clear guidance is needed over appropriate terms to enable long-term investment decisions and continuous improvement.

All carbon schemes should provide clarity on interactions in their underlying design and include the following principles:

- Promotion of transition periods (is there a transition process for continuity with review or a cliff – ie abrupt ends despite ongoing waste receipt or waste’s impacts for decades)
- method revision process (governance, consultation, review & arbitration)
- intended trajectory of the scheme
- precedence or appropriateness (relative to other schemes).

Regulatory schemes typically set fixed outcomes or requirements. For example, mandated collection of FOGO is increasing amongst states affecting whether action to take or treat this waste can continue to be considered ‘additional’. Any introduction of more prescriptive LFG collection requirements by environmental regulators in response to building interest in carbon could also have this effect if seen as extending beyond current baselines. This may mean that “early movers” who commit capital and operating costs before state mandates take effect may find their ACCU revenue stream cut off when activity that was previously considered voluntary is no longer seen as additional. However, most

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investments will be unviable without that revenue and increased charges to others may be impossible or unaccepted. In such circumstances, investments can fail, and new ones would fail to be pursued. The net effect of this will be incentivising delay and bare minimum compliance, resulting in emission increases rather than maximising carbon abatement, which must be avoided at all costs if Australia is committed to meeting its stated targets.

**Improved Scheme Processes to better fulfil the objectives?**

As mentioned above the requirement to register before commencing needs to be loosened to enable greater participation, as well as enabling aggregation. This could be achieved by following the model used in soil carbon, tree planting, etc, where each individual site might be too small to register alone but aggregated, they make a good project, making it easier for local councils to participate for example. Consultants/carbon traders/waste companies can do the hard work of registering and doing the calculations, Councils could sign over their rights in exchange for a fair share of the ACCUs (or ACCU revenue). To ensure that there are appropriate checks and balances in place for this exchange, consideration could be given to either a regulatory or voluntary Code of Conduct.

Alternatively (or in addition) we need to link the ACCUs to assets/ processing facilities and not collection or waste generators. This approach would mean aggregating commercial food waste (as mentioned above) for example, much easier. For emerging technologies, when combined with changes to the method development process, asset-linked methods would allow proponents of new or improved recycling/resource recovery operations to support the development of the methods they need, then use the ACCU revenue to support investment in their facility without adding the cost and complexity of aggregation or requiring every waste generator to submit a separate report and claim ACCUs.

Please do not hesitate to contact the undersigned if you would like to discuss WMRR's submission further, we look forward to your positive consideration of the issues raised.

Yours sincerely

A handwritten signature in blue ink, appearing to read 'Gayle Sloan'.

Gayle Sloan

**Chief Executive Officer**

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