



# AUSTRALIAN PARENTS FOR CLIMATE ACTION

Australian Parents for Climate Action  
**Submission to the**

## Independent Review of Australian Carbon Credit Units

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Australian Parents for Climate Action represents over 17,000 parents, grandparents and carers from across Australia. We are Australia's leading organisation for parents advocating for a safe climate. Our supporters are from across the political spectrum, across all Australian electorates, and from varied socio-economic positions. We seek non-partisan responses to climate change and its impacts.

We advocate for Australian governments and businesses to take urgent action to cut Australia's carbon emissions to net zero as quickly as possible. We encourage Australia to take a leadership role on the world stage, leading by example and calling for other nations to take the necessary action to protect our children's futures.

For more information, visit [www.ap4ca.org](http://www.ap4ca.org)

This submission was prepared by volunteer David McEwen and has been approved by Nic Seton, Chief Executive Officer of Australian Parents for Climate Action.

## Submission

Australian Parents for Climate Action **welcomes reform of the Emissions Reduction Fund, Carbon Credits (Carbon Farming Initiative) and Australian Carbon Credit Units** and appreciates the opportunity to provide comment on the consultation paper. It is refreshing to respond to detailed and considered queries. We hope there is a sincere intention to fix the much-rorted ACCU market and ensure it contributes to actual and verifiable emissions reduction.

In summary:

- **We cannot offset our way to net zero.** Carbon credits (offsets) must be used sparingly as there are too few of sufficient quality. *Genuine* emissions reduction must be prioritised over use of offsets.
- Use of **offsets must not justify business as usual**, *particularly not in the fossil energy sector* given the very clear warnings from international bodies about the need to cease approvals for new coal, gas and oil projects immediately.
- We identify a **hierarchy of offsets** in terms of their:
  - Type: *avoidance, nature-based removal, geological removal*; and
  - *Quality*: the extent to which they verifiably meet criteria of additionality, permanence, leakage avoidance, co-benefits, high measurement standards and avoidance of double-counting *over a minimum 100 year period*).
- We note that emitters seeking to claim carbon neutrality or “net zero” on a voluntary or regulated basis must use high quality *removal* offsets.
- While there may be merit in the use of high quality *avoidance* offsets, they *do not neutralise the purchasing entity’s emissions*.
- There is merit in the use of high quality *nature-based* offsets, but again, issues with permanence invalidate their use by entities seeking to claim carbon neutrality or net zero, given the long time frames many greenhouse gases persist in the atmosphere.
- We propose that entities seeking to claim carbon neutrality or net zero should be obliged to purchase a basket of credits for each tonne of emissions they are seeking to offset.
- Given the limited pool of high quality removal offsets, we propose a societal benefit test that should govern access to offsets (and consequential claims of carbon neutrality or net zero).
- The creation of ACCU’s must be subject to the highest standards of integrity, including world class independent measurement, verification, and on-going audit across the full life of the project.
- Publication of Climate Active Certification should be overhauled so that investors, customers and other stakeholders can be clear whether or not an entity is greenwashing. Disclosure should include (as part of the label, not just in the detail):
  - That the entity either has, or has not, included its full Scope 3 lifecycle emissions;
  - The percentage of emissions it has reduced from its operations (absolute and on an emissions intensity basis) versus its baseline year;
  - The type(s), quality(ies) and quantities (relative to its *cumulative* residual emissions since the baseline year, e.g. expressed as a percentage) of offsets it has purchased.

## When Should Carbon Offsets (Not) Be Used

Carbon offsets – even assuming they work, which we will cover elsewhere – were never intended to be a substitute for genuine emissions reduction by countries, businesses or households. We cannot offset our way to net zero: there simply aren't enough offset opportunities available.

Indeed, Oxfam estimated that global oil majors' intentions to plant trees to offset harm caused by their emissions and maintain their core business would quickly exceed the capacity of all viable land on which trees could be planted and threaten global food supplies.<sup>1</sup>

In developing the concept of net zero, **the UN Intergovernmental Panel on Climate Change (IPCC) has always been specific that the use of offsets was limited to *genuinely hard to abate activities***. Specifically, this excludes the fossil fuel sector, which is expected to be shuttered as soon as possible under all viable Net Zero scenarios.

The International Energy Agency (IEA, of which Australia is a sovereign member) and IPCC have both made it abundantly clear that no new fossil extraction or infrastructure projects (as of 2021) are compatible with a safe climate future.

We would like to reiterate this important point: **approving new or expanded fossil fuel projects at this point in history means consigning Australians to an unsafe future and material loss of irreplaceable biodiversity.**

As such, **carbon offsets were *never* intended to be used to supposedly neutralise the impacts of extracting and consuming fossil fuels.**<sup>2</sup> To even contemplate this displays a fundamental misunderstanding of their intended purpose.

To contemplate generating a credit from a carbon capture and storage (CCS) facility that is intended to reduce fugitive carbon dioxide emissions from a methane extraction facility whose product (and associated fugitive emissions from wellhead to appliance) will in turn be unabated is, frankly, farcical and insulting.

As analyst Ketan Joshi has written, carbon offsets are currently being “used to justify continued or worsened emissions from essentially any activity, no matter how wasteful, avoidable or egregious.”<sup>3</sup> This is utterly unacceptable.

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<sup>1</sup> [Net Zero – Time to Tighten the Net | Oxfam GB](#)

<sup>2</sup> [Carbon Removal 'Unavoidable' as Climate Dangers Grow, New IPCC Report Says - Scientific American](#)

<sup>3</sup> <https://ketanjoshi.co/2022/09/16/hello-and-welcome-to-the-offsets-hall-of-shame/>

## All Offsets Are Not Created Equal

Essentially, there are two different types of carbon offset projects:

1. Those that avoid greenhouse emissions that would otherwise have been released into the atmosphere. An example is not cutting down a forest. The critical question, though, is: was the forest actually going to be cut down?
2. Projects that actually remove and sequester atmospheric greenhouse emissions (also known as carbon dioxide removal or CDR).

### Avoid or Remove – The Math

While the offset industry seems to treat avoidance and removal projects similarly, in terms of their climatic outcomes, they are markedly different:

- An avoidance offset allegedly prevents a tonne of carbon dioxide equivalent being emitted. The effect is 0 tonnes of carbon entering the atmosphere instead of 1 tonne.
- A removal offset takes a tonne of carbon dioxide out of the atmosphere. The net effect should be 1 tonne less in the atmosphere.

Using avoidance offsets *slows growth* in annual emissions but doesn't reduce it from already unsafe atmospheric levels. Only removal offsets reduce the amount of greenhouse gases in the atmosphere and therefore slow the warming.

Our climate will keep getting hotter, less predictable, and more tempestuous, *until we achieve net zero emissions* (assuming we don't trip irreversible climatic tipping points before we do, something we may be extremely close to doing).<sup>4</sup> Apart from the relatively short-lived effects of methane emissions, the climate will not cool until we globally achieve net *negative* emissions.

Carbon neutrality implies that an entity's (e.g. a company, product or country) emissions are offset with negative emissions so that the net effect of the entity's activities is 0 tonnes of greenhouse gases per annum. But the math only works if the entity is purchasing removal offsets. Take two examples:

Entity A emits 100 tonnes. It purchases 100 tonnes of avoidance offsets. If it didn't, then theoretically 200 tonnes of emissions would occur (the entity's 100 tonnes, and another 100 tonnes that would have occurred if not for the offset project, *assuming it does what it says on the package*).

That's certainly *not carbon neutral or net zero*. The calculation is:

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<sup>4</sup> [World on brink of five 'disastrous' climate tipping points, study finds](#)

100 tonnes emitted by Entity A + 0 tonnes emitted by the offset project = 100 tonnes of carbon dioxide equivalent greenhouse gases added to the atmosphere (instead of 200).

Entity B emits 100 tonnes. It purchases 100 tonnes of removal offsets. Its calculation is:

100 tonnes emitted by Entity B – 100 tonnes sequestered by the CDR project = 0 tonnes of carbon dioxide equivalent greenhouse gases added to the atmosphere.

See the difference? Entity A has still increased atmospheric carbon and in so doing has depleted humanity’s remaining carbon budget. Only Entity B has actually achieved carbon neutrality.

Or has it?

## Permanence is Critical

Most greenhouse gases are long-lived in the atmosphere. Of the major GHGs, only methane breaks down within the timescale of a human life. Carbon dioxide and other GHGs persist for hundreds to many thousands of years, all the time contributing to warming as shown in Table 1.

Greenhouse Gas	Percentage of current emissions (based on their 100 year impact)	Warming Potential (compared to a unit of carbon dioxide) (20 year impact)	Persists in atmosphere for (years)
Carbon dioxide	74.4%	1	Hundreds to thousands of years
Methane	17.3%	86	12
Nitrous oxide	6.2%	268	121
HFC-134a	2.1% (including all others)	3,710	13
CFC-11		7,200	45
HFC-23		12,000	270
Sulfur hexafluoride		16,300	3,200
Carbon tetrafluoride		49,500	50,000

Source: <https://ourworldindata.org/greenhouse-gas-emissions>

*Table 1 - Longevity and global warming potential of various greenhouse gases.*

Broadly, there are two types of CDR offsets:

- a. Nature based, such as rewilding a farm (letting it revert back to wild bushland, trapping carbon as trees mature).
- b. Geological sequestration, such as direct air capture (DAC) machines that simulate photosynthesis to draw carbon dioxide from the atmosphere and sequester the carbon underground.

While nature based removal offsets have a role to play, they have many issues. First, they may lack additionality (would the project have proceeded without the purchase of the credit?). Secondly, they may lack permanence or durability. Some soil carbon projects, for example, may only trap emissions for a decade, which is useless as an offset.<sup>5</sup> If the farmer sells the land, who confirms that the credit remains? Even changing the crop mix or tillage approach could reverse some or all of the sequestration benefits. Soil carbon also lacks verifiability given measurement challenges.

Both soil carbon and re/afforestation offsets are also subject to extreme weather including erosion, droughts and bushfires. Even when projects include a buffer specifically for such an eventuality, this is not always sufficient - recent California bushfires destroyed the credit forests and a buffer intended to last a century.<sup>6</sup>

There are additional issues with credit schemes that encourage monoculture tree plantations, which may threaten local biodiversity. And of course, harvested trees may yield their carbon in just a few decades if they are used for short-lived purposes such as paper or low grade timber.

Back to the example, and if Entity B has purchased nature-based removal offsets, they could be reversed and rendered useless within years, even if they are of reasonably high quality. Only if they have purchased geological sequestration removal offsets based on direct air capture, such as are being trialled by Climeworks in Iceland amongst others,<sup>7</sup> can they have reasonable certainty that their emissions are actually being neutralised. Even geological sequestration of carbon capture at, say, a cement plant doesn't make the grade, because that is simply an avoidance offset (and likely subject to double-counting).

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<sup>5</sup> [Dynamic Stability of Soil Carbon: Reassessing the “Permanence” of Soil Carbon Sequestration](#)

<sup>6</sup> [Wildfires are destroying California's forest carbon credit reserves, study says | Reuters](#)

<sup>7</sup> [Climeworks and Microsoft sign 10-year carbon removal agreement](#)

## A Hierarchy of Offsets is Required

There's a reason that offsets involving direct air capture with permanent geological sequestration can cost over US\$600 per tonne<sup>8</sup> while some offshore avoidance offsets can cost as little as a few dollars: it's because the latter are ineffectual, and the former potentially has some credibility.

A potential hierarchy of offsets is shown in Table 2. It is critical that high quality CDR based on geological sequestration is differentiated to market participants and stakeholders (such as a purchaser of offset's investors and customers) when compared with low quality avoidance credits.

	Type	Avoidance	CDR - Nature-based sequestration	CDR - Geological sequestration
Quality	High	Potentially useful, but not to justify carbon neutrality or net zero claims	Useful, but not to justify carbon neutrality or net zero claims	Useful - could justify carbon neutrality or net zero claims
	Low	Junk status	Junk status unless additionality can be proven and durability exceeds 100 years.	Junk status unless additionality can be proven and durability exceeds 100 years.

Table 2 - A Hierarchy of Carbon Offsets

We recommend entities that are required (regulated) or seek (voluntary) to achieve net zero should be obliged to purchase a basket of *high quality* offsets (each representing a tonne of carbon dioxide equivalent emissions) for each tonne of its emissions the entity is obliged or seeks to offset, for example as follows:

- At least one high quality geological sequestration removal offset; or
- At least two high quality nature-based sequestration removal offsets; or
- At least three (or more) high quality avoidance offsets.

This would deliver a better reflection of the difference in climate-outcomes from the use of offsets. Use of low quality offsets, by both regulated and voluntary participants, must be eliminated. We also recommend that the ACCU program focus on the creation of high quality nature-based and geological *removal* offsets and minimise the use of avoidance offsets.

The creation, issuance and surrender of ACCUs must be subject to the highest standards of integrity and transparency, including world class independent measurement, verification, and on-going audit across the full life of the project. Regulation of the scheme must be redesigned to avoid the current issues of opacity, poor quality and influence by industry stakeholders. We acknowledge these measures will increase the costs of ACCUs: as they should.

<sup>8</sup> [3 big direct carbon capture deals to know | Greenbiz](#)

## A Societal Benefit Test Should Regulate Use of Offsets

Given the very limited pool of geological removal offsets of a quality that would justify claims of carbon neutrality or net zero, we recommend the development of a societal benefit test, which would assess the social utility of activities relative to their emissions intensity.

Coal, gas and oil intrinsically have no social utility. It's the energy they provide in the form of electricity, as fuel for stationary energy and transport applications, and as feedstock for chemical products that provide a societal benefit. Metallurgical coal is currently used in steel production, a useful product.

However, renewables can and are economically substituting coal and gas in global electricity grids. Given the enormous emissions payload of fossil electricity, we maintain coal and gas has no social utility in electricity, except as a short term measure to firm grids until they can fully transition to renewables and zero emissions forms of storage. Electrification in turn can replace a majority of fossil stationary energy uses.

Steel has multiple low emissions pathways that do not require metallurgical coal. Green hydrogen can eventually replace fossil gas for most chemical and high heat applications. As such, there is no rationale to expand fossil fuel production. An absolute timeline for the end of metallurgical coal use would provide certainty for investment and scaling of green hydrogen industrial development.

Hard to abate emissions intensive activities with low social utility or available low-emissions substitutes must be curtailed. Single use plastics, along with many useless novelty items with minimal utility or longevity, would fall into this category.

In general, all entities should be aiming for absolute zero emissions *without the use of offsets*. On their way to absolute zero, offsets should be used in-line with science-based targets aligned with keeping global temperature rise to 1.5 degrees, adjusted given the Paris Agreement's equity clause. In the case of Australia and Australian companies, the recommended target is a 75% reduction (on 2005 levels) by 2030 and net zero by 2035.<sup>9</sup> We acknowledge with disappointment that the Australian Government has ignored the scientific advice and set unambitious targets of 43% by 2030 and net zero by 2050. This trajectory must be the *floor* for all Australian entities' achievements.

Activities that demonstrably have high social utility (such as the critical minerals mining that will facilitate the broader transition to net zero emissions) but for which there is not a zero emissions pathway, could be granted an exemption from achieving absolute zero emissions.

However, in general, and in granting such exemptions, the regulator must assess the total quantum of high quality nature-based and geological removal offsets and ensure there is sufficient supply to meet Australia's net zero target (noting the basket requirements recommended earlier). Lack of supply would require accelerated genuine emissions reduction.

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<sup>9</sup> [Shifting The Burden: Australia's Emissions Reduction Tasks Over Coming Decades](#)

## Climate Active Certification Requires Reform

The Climate Active scheme has suffered from low levels of integrity, compounded by participants' use of junk status ACCUs or offshore credits. We believe publication of Climate Active Certification should be overhauled so that investors, customers and other stakeholders can be clear whether or not an entity is greenwashing - making misleading claims about emissions reduction. Disclosure should include (as part of the label, not just in the detailed reporting):

- That the entity either has, or has not, included its *full* Scope 3 lifecycle emissions (both upstream and downstream);
- The percentage of emissions it has reduced from its operations (absolute and on an emissions intensity basis) versus its baseline year; and
- The type(s), quality(ies) and quantities (relative to its *cumulative* residual emissions since the baseline year, e.g. expressed as a percentage) of offsets it has purchased.

As a comparator, we note that NABERS star ratings differentiate between a building's emissions performance with and without the use of Green Power. NABERS ratings have high integrity and provide a clear and consistent signal to prospective tenants and property investors and the Commercial Building Disclosure scheme has been successful in genuinely reducing emissions within the sector. We would encourage Climate Active to be reformed to deliver similar benefits.

## Conclusion

It is critical that the review's recommendations include substantially overhauling ACCUs to reduce issues of proponent gaming (rorting), eliminate low-quality offsets, and establish concepts that ensure that claims of carbon neutrality or net zero are justified given the mix of credits used.

Recognition of the limited availability of *quality* offsets is essential. Emphasis must be on genuine emissions abatement. Planning processes and operational regulation must prioritise and incentivise actions that genuinely reduce emissions without relying on offsets. We recommend meaningful penalties for false claims of neutrality.