



2 September 2019

Brad Archer  
CEO, Climate Change Authority  
GPO Box 787  
Canberra ACT 2600

Dear Mr Archer

**RE: July 2019 Consultation Paper: Updating the Authority's Previous Advice on Meeting the Paris Agreement**

RMAC is a policy leadership forum for farmers, lot feeders, manufacturers, butchers and livestock exporters representing 82,500 Australian beef, goat and sheep meat businesses from gate to plate. We work across the supply chain from paddock to plate, working together to present a unified industry voice to government on all matters red meat. With \$65 billion of annual turnover, our industry contributes \$18.4 billion annually to the Australian economy; enabling the red meat industry to grow the combined Australian workforce to 438,000 people.

RMAC recognises that the agriculture sector has an important role to play in Australia's climate mitigation strategy; and is of the view that agriculture can play a positive role in this through our custodial role.

Australian red meat producers are among the most innovative in the world, they know how to overcome adversity and adapt to changing conditions. Coupled with the fact that graziers are custodians of around 355 million hectares of Australia's land, an enormous opportunity exists to benefit from improving carbon storage in the landscape. No other sector of the economy is presented with this opportunity.

Farmers are at the frontline of delivering environmental outcomes on behalf of the Australian community, with 94 per cent of Australian farmers actively undertaking natural resource management. The red meat industry has reduced GHG emissions an impressive 57.6% from 129.3 million tonnes of CO<sub>2</sub> equivalent (Mt CO<sub>2</sub>e) emissions in 2005 to 54.8 Mt CO<sub>2</sub>e in 2016. These numbers were calculated by CSIRO using the Australian Government's National Greenhouse Gas Accounts<sup>1</sup>. Further significant declines are expected as technologies that reduce enteric methane emissions become more prevalent, and the reduction in emissions are captured in the National Greenhouse Gas Accounts. This is a key area of focus for future R&D; driving development and adoption of methane inhibiting technology, and establishing scientific methods that enable emissions reductions to be measured and reported in the National Greenhouse Gas Accounts.

The red meat industry's proportion of national GHG emissions has also reduced from 21.4% in 2005 to 10.4% in 2016, which means our contribution to national GHG emissions has reduced substantially over time. The red meat industry (reported within the Agriculture, Forestry and Fishing sector data set) and the manufacturing sector are the only major sectors of the economy to reduce emissions since 1990<sup>2</sup>, with the red meat industry making by far the greatest reductions. Action within the red meat industry to avoid GHG emissions and improve carbon storage is therefore critical to Australia's aspirations under the Paris Agreement.

We thank the Climate Change Authority for the opportunity to provide a submission in response to their *July 2019 Consultation Paper: Updating the Authority's Previous Advice on Meeting the Paris Agreement*.

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<sup>1</sup> <http://www.environment.gov.au/climate-change/climate-science-data/greenhouse-gas-measurement/tracking-emissions>

<sup>2</sup> <http://www.environment.gov.au/system/files/resources/d4cd38c2-d581-4434-8725-663e3f2a09f6/files/national-inventory-economic-sector-2016.pdf>



After considering the consultation paper and related documents in conjunction with key stakeholders including the Australian Beef Sustainability Framework, the National Farmers Federation and Climate Proofing Australia, we make the following recommendations. These recommendations are expanded in our submission.

**Key Recommendations:**

- Government (State and Federal) should support investment in research, development and adoption initiatives to assist the red meat industry achieving its Carbon Neutral by 2030 target.
- For example, a new national livestock methane project should be considered to build on the outputs from the previous National Livestock Methane Program (NLMP), which unearthed extremely innovative livestock supplements which reduce enteric methane, such as Red Asparagopsis.
- The establishment of a Clean Energy Finance Corporation (CEFC) for the land aligned with carbon farming methods to enable access to capital for adoption of innovative technology and practice change.
- Reassess the method for methane accounting within the agricultural sector in the National GHG Inventory. Including investigating emerging GHG accounting standards for agriculture, best achieved through a joint industry to government working group.
- Incentivise carbon projects that deliver co-benefits to land managers and the community.
- Explore tax deductions for livestock producers who purchase GHG technology to avoid GHG emissions and/or sequester carbon.
- 'Banding' by technology category within the Emissions Reduction Fund to incentivise adoption of technologies and varying stage of development.



## Background

The Climate Change Authority (CCA) previously recommended the following options for the agriculture sector<sup>3</sup>. These remain valid, but need to be combined with RMAC's recommendations with reference to Australia in meeting its Paris commitments:

- **R.28** The land sector (land use and agriculture) should be covered by the Emissions Reduction Fund crediting mechanism. Credits could be used as offsets for facilities with obligations under the safeguard mechanism and the sector should be covered by the ERF purchasing mechanism until the safeguard mechanism provides a source of demand
- **R.29** The Australian Government should support new ERF method development and associated research to reduce emissions in the land sector
- **R.30** The Australian Government should lead a review involving states and territories and other key stakeholders to provide guidance on how natural resource management policies at both the national and farm levels could encourage carbon storage and reduce emissions from the land sector, and deliver increased productivity as well as enhanced natural resource management outcomes like improved biodiversity, water quality and soil conservation.

## Government support and investment for Carbon Neutral 2030

The Carbon Neutral 2030 (CN30) target was set following industry-funded research undertaken by CSIRO in 2017 which confirmed that carbon neutrality, or net zero emissions, is achievable in the Australian red meat production system.

CN30 is a significant collaborative effort across industry and the research community and will contribute significantly to state and federal government carbon emission reduction targets.

However, government must support Australia's 82,500 red meat businesses, which range from farms to butchers, to take on the heavy lifting required to achieve their CN30 target and in doing so make a significant contribution to Australia's Paris Commitments. CSIRO has estimated that **a targeted investment of \$200 million into R&D over the next 10 years is required to further develop technologies for industry to achieve net zero emissions.**

The push to this target needs to be matched with appropriate investment due to its widely recognised importance in mitigating climate change. It will require direct business investment through a range of government-agencies, and greater research and adoption.

The CN30 initiative builds on decades of legume, animal and economic research that has underpinned Australia's red meat production systems. The CSIRO project identified the most promising pathways to achieving carbon neutrality by 2030. Pathways that considered the likelihood of industry adoption, commercialisation opportunities of technology and research gaps were closely investigated. The pathways identified were informed by two previous collaborative research programs:

- Reducing Emissions from Livestock Research Program (RELRP) that ran between 2009–12 and developed knowledge and technologies on methane emissions to enable producers to reduce livestock emissions while maintaining or improving livestock productivity.

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<sup>3</sup>  
<http://climatechangeauthority.gov.au/sites/prod.climatechangeauthority.gov.au/files/files/Special%20review%20Report%203/Special%20Review%20Report%20Three%20Summary%20and%20recs.pdf>



- National Livestock Methane Program (NLMP), that was undertaken in 2012–16 and built on the outcomes from the previous RELRP program. Outcomes from this program are featured in the publication *More meat, milk and wool: less methane*.

In addition, a CN30 plan has been developed to take the next critical step to ensure the successful implementation of the technology identified within these earlier programs. The plan integrates the implementation carbon farming technologies to increase resource use efficiency for profitable livestock production and a reduction in environmental impacts.

With industry, policy and research focus Australia can be the first country in the world to have a carbon neutral red meat production system. It is one way in which the Government can help Australia move towards a net zero emissions economy, whilst enabling continued economic development opportunities for the land sector.

RMAC also recommends the government consider a new NLMP project to continue to provide research and innovation pathways to methane reduction.

### **The establishment of a Clean Energy Finance Corporation (CEFC) for the land**

The CCA recommended a Land and Environment Investment Fund, much like the Clean Energy Finance Corporation for the land in 2018<sup>4</sup> and RMAC continues to support this recommendation.

RMAC believes the CEFC is an excellent model in terms of delivering results that match the public interest with investment and providing businesses with direct support to help reduce their emissions and explore renewable energy.

However, for the industry and the agribusiness finance sector to fully engage with CEFC, adjustments to the CEFC's investment mandate should be considered. For instance, the CEFC could consider investment into emerging ecosystem service opportunities in the land sector which extend beyond GHG emission alone.

Additionally, longer-term investment cycles of up to 10 years is needed, with interest rates guaranteed, in order to align with the investment culture of the agricultural industry. Thirdly, there is a need to bridge the knowledge gap between conventional agribusiness lending practices and CEFC lending practices in order to accelerate the rate of development of innovative financial products to stimulate investment into the low carbon agricultural systems of tomorrow.

We recommend an agricultural investment advisory group be established to work with industry, the CEFC and the agribusiness banks to advise the continued development of future finance products for industry that are aligned with adoption of new technology and practice change options. Red meat manufacturers are looking at whole-of-community energy programs where manufacturing plants could potentially be part of entire regional communities to move off the grid. There is large public interest in scaling these types of projects to enable rural communities to become more resilient.

### **Reassess the method for methane accounting**

There have been recent studies to suggest the current accounting methods for GHGs may need reassessing in order to account for the varying global warming impacts of different GHGs, especially methane, arising from the livestock sector. A collaborative study<sup>5</sup> suggests there are two distinct types of emissions, 'long-lived' and

<sup>4</sup> <http://climatechangeauthority.gov.au/reaping-rewards-research-report>

<sup>5</sup> <https://www.nature.com/articles/s41612-018-0026-8>



‘short-lived’ pollutants. In order to properly address climate change, creating a fair and accurate climate change policy, the authors suggest that these two groups must be treated differently. Long-lived pollutants, like carbon dioxide persist in the atmosphere, building up over centuries. Whereas short-lived pollutants like methane, disappear within a few years.

The study presents an alternative way to assess how methane and other gases contribute to greenhouse gas emissions budgets. It shows that cumulative carbon dioxide equivalent emissions using the current global warming potential (GWP) calculations are actually a poor indicator of peak warming. Carbon dioxide (a long-lived pollutant) breaks down in the atmosphere over hundreds of years, whereas methane (a short-lived pollutant) breaks down over a much short period, having a half-life of 12 years. Just as important is the fact that the carbon emitted by livestock during respiration and enteric fermentation stems from plants (assimilated during photosynthesis) and will eventually cycle back to the atmosphere. Whereas fossil fuel derived carbon, that is carbon extracted from stable, long-term stores underground, is new to the atmosphere when released through combustion or fugitive emissions.

In light of this new knowledge, RMAC recommends exploring a new method of defining equivalence between different emissions from different sources, which takes into account the lifetime effects of various GHG molecules. As well as what this means for greenhouse gas emissions budgets, particularly for industries emitting methane such as livestock.

Further exploration of this area could also substantially reduce Australia’s contribution to our Paris agreements.

### **Incentivise carbon projects that deliver co-benefits**

Carbon sequestration and emissions reductions should not be isolated goals and RMAC believes more should be done to incentivise carbon projects that deliver environmental, economic and social co-benefits such as improvements in biodiversity, soil health, water quality and employment.

The CCA has previously noted<sup>6</sup> there are numerous policy options for creating new markets or incentives that can deliver multiple benefits from carbon farming projects. Additionally, an Australian Farm Institute report released in June 2019<sup>7</sup> examined industry’s ability to build value, create efficiency gains and diversify with government’s help to realise opportunities.

One key example is the Australian Government’s \$30 million pilot Agriculture Biodiversity Stewardship Program<sup>8</sup>, rewarding farmers for their role in both sequestering carbon and improving biodiversity. This program was welcomed by industry with the NFF long calling for a Biodiversity Stewardship Fund (supported by the Craik EPBC review). Additionally, the NAB are actively exploring rewarding Australian producers for their role in maintaining and improving natural capital.

These programs all point towards a higher value market for sustainable Australian food and fibre production playing a role in climate mitigation and should be further explored and supported. Investment into methods for measuring, valuing and reporting ecosystem services to crucial to underpinning the development of these markets as well as engagement with land managers and other important stakeholders.

RMAC has also been involved in the Australian Beef Sustainability Framework (ABSF), launched in 2017. The

<sup>6</sup> <http://climatechangeauthority.gov.au/sites/prod.climatechangeauthority.gov.au/files/files/2018%20Reaping%20the%20Rewards/Final%20Report%20-%20Reaping%20the%20Rewards.pdf>

<sup>7</sup> <http://www.farminstitute.org.au/research-program/research-reports.html>

<sup>8</sup> <http://www.agriculture.gov.au/about/reporting/budget/sustaining-future-australian-farming>



framework defines sustainable beef production with six key priority areas, and tracks performance over a series of indicators, to promote the industry's longevity and prosperity. Managing climate change risk is a key priority area, falling under the Environmental Stewardship theme. For landholders, who often face financial barriers to adopting carbon sequestration or mitigation technologies, delivering co-benefits incentivises these projects.

There are also supplementary policy instruments that should also be considered if Australia is to take a lead in emerging GHG avoidance and carbon storage technologies.

For example, exploring tax deductions for livestock producers who purchase GHG avoidance technology such as livestock supplements that reduce enteric methane emissions.

### **Banding by technology within the Emissions Reduction Fund (ERF)**

There are existing economic and technical barriers in the ERF architecture that have limited the adoption of various methods within the red meat industry; particularly the Beef Herd Method and Nitrate Supplements Method. The current ERF conditions limit the land sector's capacity to generate co-benefits associated with carbon sequestration, such as reinstating wildlife habitat, supporting sustainable agriculture, increasing the plantation forestry estate, and cleaner waters in our rivers.

The government should consider 'banding' by technology within the Emissions Reduction Fund (ERF), such as technology banding approaches used in various renewable energy market mechanisms globally. The use of a single market for all technologies (rather than a system of banding) when combined with an emphasis on cost of mitigation means that the ERF primarily benefits the cheaper technologies. This is to the exclusion of more expensive technologies that may be less progressed in their industrial development. The ERF therefore inhibits the development of early-stage technologies, rather than catalysing acceleration of a diverse set of commercially viable technologies yet to reach economies of scale in production.

A number of organisations support 'banding' or dedicated auctions, where projects of a similar type that offer co-benefits compete only amongst themselves rather than with the broader set of projects that would otherwise participate at auction. Stakeholders are of the view that projects in some sectors including those more likely to deliver co-benefits experience higher implementation costs than other project types and are disadvantaged at auction if the main purchasing criteria is least cost. This is detrimental to the development of a balanced portfolio of technology and practice change options for Australia to avoid GHGs emissions and store carbon in the land sector. This approach also stifles innovation.

The CCA has previously been of the view the ERF should remain focused on efforts to reduce emissions at the lowest possible cost and does not support banded auctions or explicit ERF payment for co-benefits.

RMAC recommends the CCA revisit this view and consider banding by technology or practice change 'category'.

### **Further comments and other policy considerations**

RMAC has an unprecedented cross-sector collaboration with Greening Australia, the Australian Forest Products Association, and Farmers for Climate Action to advance the role of farming, forestry and conservation in meeting Australia's emissions targets. The alliance, Climate Proofing Australia (CPA) takes a whole of landscape approach to improving environmental outcomes.

It was recognised action was needed to not only reduce greenhouse gas emissions, but to also increase the resilience of our farmers, farming landscapes and natural ecosystems to climate change. This alliance advocates for clear and stable policy underpinned by objective science-based evidence that aligns with the



CN30 pathways and enables large-scale investment in sustainable development. CPA key policy principles include:

1. The continuation and enhancement of the Carbon Farming Initiative (CFI) to maximise biodiversity, and food and fibre production benefits alongside carbon sequestration objectives;
2. The development of new mechanisms and incentives for carbon abatement on land projects that brings together institutional, private and public capital;
3. The need for new and improved national environmental datasets and mapping to guide best practice and whole-of-landscape policy making that integrates forestry, farming and conservation outcomes;
4. Primary industries working towards carbon neutrality by 2030;
5. Improving the Australian landscape through a strategic approach of balancing native biodiverse plantings with agricultural production and forestry.

As part of this alliance, RMAC understands Greening Australia has made a submission to the CCA's inquiry.

RMAC believes many of these recommendations align with our own recommendations and offer in-principle support.

The recommendations include:

- Stepping up sequestration
  - Australia holds a strong international position as a land and/or service provider in carbon offsetting. This needs to be included and recognised in the work undertaken by CCA.
- Sequestration vs Energy Efficiency
  - CCA must set out strong points around the international recognition that carbon sequestration is now considered as important as carbon pollution reduction in combating climate change.
- Biodiverse carbon sequestration
  - That CCA includes a section in the final report that discusses and recommends the need for scientifically planning the resilience of biodiverse carbon offset plantings to withstand and survive the coming changes in climate and conditions.
- Co-investments/co-benefits
  - Very similar to RMAC's co-benefit recommendation, that CCA provide a discussion and recommendations on efficiency gains, and overall effectiveness of well-designed co-benefit carbon project structures that are developed overtime at scales that return significant productivity, biodiversity, water quality, indigenous employment and sequestration outcomes.
- Climate Solutions Fund
  - There is an urgent need to increase the price per ACCU to unlock large-scale environmental plantings and to facilitate investments across a much wider geographic area than is currently occurring.
- Improving markets to accelerate the uptake of carbon sequestration.
  - That the CCA seek the Government's commitment to establishing a futures and options carbon market exchange to support growth in the sector

RMAC are also aware and supportive of the following NFF considerations:

- Need for a coordinated State and Federal approach and for the Agriculture Ministers Forum to adopt a Climate Change Adaption Plan that takes a positive approach to supporting the CN30 target in general; and a carbon neutral trajectory for agriculture as a whole.



- As the carbon market further develops, consideration given for an Ombudsman or Commissioner for offset programs.

RMAC once again thanks the CCA for the opportunity to make a submission to the *Consultation Paper: Updating the Authority's Previous Advice on Meeting the Paris Agreement*. We welcome all questions and discussions related to the content of our submission. Should you require further information please contact RMAC CEO Anna Campbell on [REDACTED] or [REDACTED]