

1st November 2024

Productivity Commission
697 Collins St
Docklands
VIC 3009



Via email: circular.economy@pc.gov.au

Dear Secretariat,

SUBJECT: Opportunities in the circular economy

The Australian Chicken Meat Federation (ACMF) appreciates the opportunity to respond to the call for submissions regarding opportunities in Australia's circular economy.

As the peak industry body for the Australian chicken meat industry, we are deeply invested in ways to reduce our sector's environmental impact and contribute to a sustainable and productive economy.

Our submission raises the following opportunities and challenges to support the Productivity Commission's findings:

- The Australian chicken meat industry's contribution to economic circulatory, explored through our industry's sustainability framework and case study examples.
- The role of government incentives to increase uptake in emissions reducing activities and projects that contribute to the circular economy.
- Barriers posed by green tape and regulatory inconsistency between state jurisdictions.

If you have any questions or comments regarding our response, please direct them to our policy officer Amy Roberts

Regards,
Verity Price

Deputy Chief Executive Officer

T: 02 9929 4077

W: www.chicken.org.au

ABOUT THE ACMF AND THE AUSTRALIAN POULTRY INDUSTRY

The Australian Chicken Meat Federation (ACMF) is the peak coordinating body representing all key players in Australia's chicken meat industry. It serves as the voice of the industry at the national level, advocating on behalf of chicken growers, integrated producers, and other industry participants. The ACMF plays a central role in shaping industry policy, fostering best practices, and liaising with government, regulators, and stakeholders on a wide range of issues, including biosecurity, animal welfare, environmental sustainability, and food safety.

The chicken meat industry is a significant contributor to Australia's economy. In the 2024-25 financial year, the gross value of production (GVP) is projected to reach \$3.8 billion, reflecting the industry's growth trajectory and increasing domestic demand for poultry products. The sector supports the employment of more than 58,000 full-time equivalent workers, many of whom are located in regional and rural areas, where the industry provides essential economic stability and job opportunities. These roles span across chicken farming, processing facilities, logistics, feed production, and allied services, underpinning a complex, integrated supply chain.

Chicken meat remains the most popular source of animal protein for Australian households, surpassing all other meat varieties. Annual per capita consumption now exceeds 50kg and continues to grow, underscoring the widespread preference for chicken as a dietary staple. This far exceeds other meats, such as pork, which ranks second with a per capita consumption of 28kg per annum. 68 per cent of Australians eat chicken meat as part of a meal at least twice a week because of its affordability, popularity with the entire household, versatility, and taste.

The Australian chicken meat industry is widely recognised for having the lowest environmental footprint among all land-based animal protein sources. Chickens convert feed to meat with unparalleled efficiency compared to other livestock, requiring significantly less grain, water, and land to produce the same amount of protein. This high level of efficiency helps reduce the overall demand on natural resources.

Additionally, the industry generates considerably lower greenhouse gas emissions than other meat production systems, contributing to national efforts to mitigate climate change. Modern production systems are also designed to minimise waste, reduce water use, and ensure that by-products are managed sustainably, reinforcing the industry's commitment to continually reducing its environmental impact. These practices highlight the industry's ability to meet growing consumer demand while promoting sustainable food systems.

Chicken meat plays a pivotal role in Australia's food security by offering a reliable, affordable, and sustainable source of protein. With a growing population, food affordability and accessibility remain crucial challenges. The high production efficiency of the chicken meat industry ensures a stable supply, helping to keep retail prices competitive and protein-rich foods accessible to all Australians.

OUR RESPONSE

In response to the discussion paper, our submission highlights case studies that demonstrate the Australian poultry industry's active involvement in the circular economy, while also identifying opportunities for greater collaboration between government and industry to expand these efforts. As we present these examples and potential areas for growth, we emphasise the importance of incentive-based models to encourage adoption, rather than imposing regulatory or commercial barriers that could negatively impact the sector.

The chicken meat industry has long placed considerable investment on improving its already high commitment to sustainability and environmental stewardship. The sector boasts the smallest environmental footprint of any land-based meat protein. This has been achieved through efficient feed conversion rates, our comparatively small land and water usage, and innovative approaches to waste management. Industry also invests significantly into research and development to find solutions to further lower industry's environmental impact and increase levels of productivity to meet the growing demand from consumers for Australian chicken.

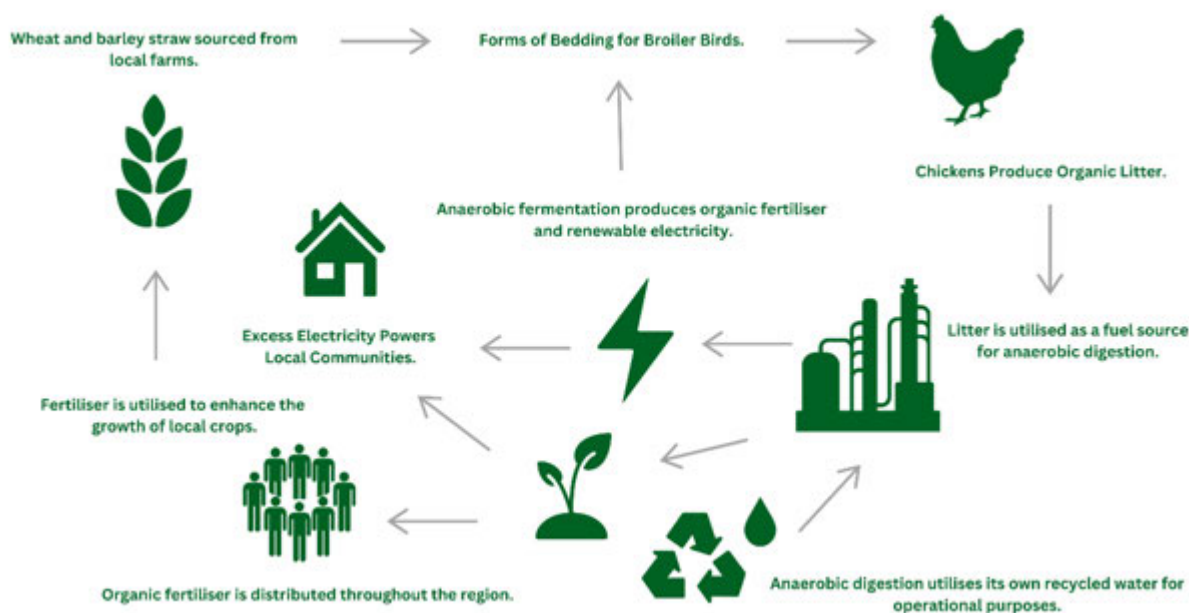
Consumers rely heavily upon our industry in providing a price-stable, nutrient dense and versatile protein source. Chicken meat is the most consumed meat protein in Australia, with an annual per capita consumption rate of over 50 kg per person, far exceeding other protein types. As such, regulatory intervention that could impact the production capacity of the sector or introduce costly new requirements would have significant social and economic impacts on everyday Australians.

We believe a collaborative approach between industry and government, that acknowledges long-standing investment within our sector to support economic circularity, will lend itself to further participation in initiatives to support opportunities within the circular economy.

Case Study – On Farm Biogas Facilities

As outlined in the Australian Chicken Meat Sustainability Framework *“The Australian chicken meat industry continues to invest in and implement significant capital infrastructure and equipment to reduce scope 1 and 2 emissions and bolster renewable energy generation capacity. This includes widespread installation of solar panels; establishment of biogas capture systems; processing equipment efficiencies; and refrigeration and transport system upgrades.”*

A specific example of such integration of biogas capture systems is a broiler operation in Victoria committed to 100% sustainable and circular farming methods. To achieve this, this farm is implementing a multifaceted approach which incorporates responsible stewardship practices of byproducts and litter, renewable energy, bird welfare and organic fertiliser production. Their adjacent biogas facility is set to process chicken litter and other organic materials (manure) to safely convert it to approximately 21,000Mw per annum worth of renewable energy and over 6,000 tonnes of organic fertiliser. A visual representation of this circular system is outlined in the diagram below.



Through transforming poultry manure into organic fertiliser and renewable energy, waste is not only reduced but economic value is added to the supply chain. The benefits of this system extend beyond the poultry industry, providing local communities with an additional source of renewable power and providing a valuable input to other commodities.

To support the widespread adoption of circular economy infrastructure within the poultry meat industry, a targeted funding program commensurate with industry's current level of investment in sustainability, would enable producers to implement circular systems without incurring excessive financial strain.

Government grants have proven to be an effective approach in future proofing on farm infrastructure. For example, the Republic of Ireland's successful Pig & Poultry Investment Scheme subsidises 40% of the costs associated with on-farm infrastructure improvements. This strategic investment program has accelerated the modernisation of Ireland's poultry sector since 2015, facilitating the adoption of energy-efficient systems, such as solar panels and heat recovery units, thereby reducing both production costs and environmental impact. According to the Food and Drink Ireland's Poultry Sustainability Roadmap (2023), Ireland's poultry production system exhibits the lowest emissions intensity within the European Union, with its carbon output per kilogram of chicken produced being one third than the EU average. Further to this, Ireland's poultry industry has also seen a 20% decrease in emissions over the past ten years, even as production capacity has increased. This achievement is a result of substantial industry investments in sustainable production practices, further supported by strategic government investment programs.

A similar industry-endorsed program in Australia would further circularity opportunities while addressing the increasing demand for poultry products and further benefit of our national food security.

Recommendation: the Australian Government commits to an Agriculture Sustainability funding package targeted towards Australian farming businesses to integrate circular and regenerative production practices.

Case Study – Rendering Systems

Rendering has provided industry with the opportunity to explore alternative revenue streams while reducing their waste to landfill. The Australian Renders Association estimates that annually, over 2.7 million tonnes of animal material that would otherwise be disposed of, is instead recycled into fats, oils and protein products. Valorisation technologies have assisted the sector in extracting high value materials from poultry matter for further manufacturing. This has enabled up to 30% of poultry byproducts to be transformed into high value consumer goods, reducing the intensity of waste to landfill.

Some (non-inclusive) examples of by-product or secondary cuts being converted into high value products include:

- **Feathers** – Keratin based vitamins and beauty products
- **Bones & Cartilage** – Broths, stock cubes, collagen supplements
- **Liver** – Pet food, functional medicine products, pâtés
- **Carcases** – Chicken flavouring sachets, petfood

As the industry seeks to embrace more sustainable practices, rendering offers a proven and effective model for circularity. Capitalising upon existing resource-efficient systems and supporting its widespread use will be a key opportunity for the processing industry to fast track its adaption of circular practices.

Recommendation: State governments to introduce land planning policies that are supportive of planning proposals for recycling and protein recovery facilities.

Case Study – The Australian Chicken Meat Sustainability Framework

The Australian chicken meat industry has recently launched the first chicken meat industry specific sustainability framework globally that includes targets and metrics to support continuous improvement in social and environmental stewardship.

The framework has identified key goals to further accelerate industry’s integration into circular economic practices including:

- Utilising litter to be re-purposed into composts and/or in organic fertilisers
- Introducing advanced protein recovery systems during processing to enable up to 30 per cent of by products to be efficiently converted into valuable products through rendering
- Exploring sustainable packaging options as an approach to waste reduction.
- Achieving zero-waste to-landfill through implementing innovative practices and technologies to minimise waste generation and maximise recycling and reuse efforts.

These goals, supported by resource use, circularity and industry performance metrics and targets, will deliver tangible sustainability outcomes in line with the Australian Government's commitment to transition to a net zero economy by 2050.

Importantly, this framework has been developed in conjunction with industry, to align with sustainability priorities specific to the poultry industry, meaning that its outcomes are both relevant and supported by industry participants. Like other sectoral frameworks, this does not seek to introduce a regulatory burden to industry, with participation being voluntary.

Industry's proactive approach to meeting various sustainability targets should be recognised as a best practice approach to supporting the natural integration of circular activities within industry's supply chain. As previously mentioned, identifying and leveraging existing circular practices and systems, like rendering, through supportive regulations will further support their widespread adoption.

Recommendation: The Federal Government acknowledge the agricultural sector's existing sustainability program and initiatives to support economic circularity to prevent regulatory overlap and capitalise on pre-existing industry endorsed initiatives.

Case Study – The Australian Chicken Meat Consortium on Gut, Nutrition and Environment

Research and Development Corporations (RDCs) play a pivotal role in fostering the advancement of the circular economy within the agricultural sector. AgriFutures Australia, the Australian chicken meat industry's RDC, continue to work collaboratively with ACMF to identify opportunities which support ongoing circularity initiatives. A key component of research developed through RDCs is industry's involvement in assessing and developing research proposals, ensuring they are relevant to industry needs and can be implemented at the commercial level.

For example, the Australian Chicken Meat Consortium (The Consortium), is a cornerstone research program investigating the potential of locally grown feed grains to reduce the industry's reliance on imported soybean meal while maintaining high standards of animal welfare and optimal feed conversion ratios. This industry backed research program will propose solutions to further environmental outcomes for the Australian chicken meat sector.

Establishing a research consortium to investigate waste reduction, nutrient recycling, and implementing closed-loop systems, would provide considerable benefit to furthering circular initiatives among the broader agricultural sector. This would provide the opportunity to further knowledge sharing between research institutions and industry partner thus leading to lucrative real-world applications.

Recommendation: The Federal Government invests in the use of collaborative research programs focused on circular economy solutions to drive innovation and accelerate progress in this area.

STRUCTURE & BARRIERS TO UPTAKE

Harmonisation of EPA regulation and removal of state-based regulatory barriers

Regulatory barriers that are prohibitive to the growth of the circular economy within the agricultural sector need to be investigated, particularly on a state-based level. Excessive green tape can be counterproductive to the pursuit of circular economic activities and discourage commercial practices of benefit to the environment, consumers and the broader supply chain.

A core example of a regulatory barrier that is prohibitive to the overarching goal of establishing a circular economy in Australia is the Victorian Environmental Protection Authority's (EPA) decision to classify animal manure as industrial waste. The determination to amend its definition under the Environment Protection Amendment Act 2018, introduced a myriad of restrictions on the transportation of animal manure, including highly prescriptive reporting and licensing requirements. This has ultimately prevented the Victorian agricultural industry from capitalising on the productive reuse of animal manure, thereby preventing a core opportunity for circularity within the sector

As previously discussed, animal manure, (specifically poultry manure) due to its high concentration of phosphorous, makes it ideal for reuse as an organic fertiliser and/or biofuel. The benefits of its adaption as both a fuel and fertiliser goes beyond a value adding opportunity for industry but can further the adoption of renewable energy systems.

It is important that at all levels of government introduce policies that are supportive of circular activities and assess future regulatory decision making within this light.

Recommendation: That the newly established Australian EPA under the Nation Positive Plan, develop a National EPA Strategy on the Circular Economy focused on how state-base EPAs can assist the commercial farming sector in such initiatives AND:

That the introduction of land planning policies at a state level are supportive of circular farming proposals, specifically focusing on the role of local councils and the relevant environmental protection authorities as core enablers of successful circular integration.

Conclusion

The ACMF is deeply committed to advancing sustainable and circular practices within the poultry industry. As demonstrated by the case studies provided, the industry has already made significant investments in incorporating sustainable practices and researching further ways to reduce our environmental footprint throughout our supply chain. Our commitment to environmental stewardship is particularly evident in our industry's sustainability framework, which outlines our journey in becoming the smallest environmental footprint livestock industry in Australia and our dedication to continuous improvement through ambitious sustainability targets.

While industry is spearheading efforts to explore sector specific opportunities for circular economic applications, government at all levels can play a crucial role in facilitating progress by creating supportive regulatory frameworks that enable further industry innovation and adaptation.

We reiterate the importance of supportive policy frameworks among all levels of government in enabling opportunities within the circular economy. This will include capitalising on existing opportunities through targeted funding models, to support wide-scale uptake in circular farming practices. This approach both recognises the value of existing industry efforts and will assist in future proofing the sector against the challenges posed by climate change.

The ACMF looks forward to continued collaboration with governments and other stakeholders to drive the adoption of circular economy principles within the animal production sector. We believe there is ample opportunity for investment in current industry-driven developments to further accelerate our sector's capacity to embrace circularity.

END.