

## Environmental Protection (Powers and Penalties) and Other Legislation Amendment Bill 2024

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Health, Environment and Agriculture Committee  
Queensland Parliament

Submitted via online form

To whom it may concern,

**RE: Australian Pork Limited (APL) response to Inquiry into the  
Environmental Protection (Powers and Penalties) and Other Legislation  
Amendment Bill 2024**

On behalf of the Australian pork industry, we would like to thank you for the opportunity to provide a submission for the Committee's consideration.

**About Australian Pork Ltd**

Australian Pork Ltd (APL) is the peak national representative body for Australian pork producers. It is a producer-owned company combining marketing, export development, research and innovation and strategic policy development to assist in securing a profitable and sustainable future for the Australian pork industry.

The domestic pork industry is a vital part of Australia's food supply chain, with pork the second most consumed meat in Australia and all fresh pork consumed in Australia domestically sourced. In 2022/23, the Australian pork industry produced 453,426 metric tonnes of pork. The largest volume of production is sourced from Queensland, Victoria and South Australia from an Australian domestic commercial sow herd, as at 1 July 2023, of 285,538 sows.

The Australian pork industry contributes around \$6 billion in gross domestic product to the economy and supports a diverse range of careers across the food supply chain. The industry is domestically focused with around 90% of our production supporting food security for Australians. The value of the 10% exported in 2022/23 was around \$182 million.

Approximately 34,600 jobs are supported by the industry nationally, predominantly in regional Australia, supporting the economic and social prosperity of communities and the wellbeing of individuals. The Australian pork industry's workforce is skilled, specialised and generally engaged on a permanent basis.

Like many rural industries, the pork industry is currently being impacted by staff shortages with the industry willing and able to support more than 36,000 jobs nationwide and opportunity for growth up to 38,000 as Australian pork replaces imported pork in the domestic production of smallgoods.

APL holds a number of roles on behalf of the Australian pork industry. APL is:

- The pork Research, Development and Extension organisation leading climate research and extension in partnership with the Australian government and the research community
- The marketing arm of the Australian pork industry managing national campaigns such as “Get some pork on your fork” and the Valuable Provenance campaign raising awareness of how to support the growth of high-quality smallgoods made from Australian pork,
- The peak body for the Australian pork industry, representing pork within the National Farmers’ Federation and other representative frameworks,
- Leading the pork industry’s Sustainability Framework implementation,
- Part of the sector-wide collaborative effort to develop an Australian Agricultural Sustainability Framework, coordinated by the National Farmers’ Federation on behalf of the Federal Department of Agriculture, and
- The industry signatory to the Emergency Animal Disease Response Deed (EADRA).

### **Pork supply chain’s active investment to support reduction of environmental impact**

Pork is already a low emissions protein, emitting 3.3kg of greenhouse gas emission per kilo of liveweight produced, second only behind chicken meat. The industry is making further gains in decarbonisation through investment technologies such as renewable energy and better use of waste.

The pork industry has been actively managing those areas of its production system which may be considered to have an environment impact. The industry has also been actively mitigating climate change risks for decades (a 73% reduction in emissions to date). There is an opportunity to support the industry by providing a regulatory environment which recognises the work of the industry and provides opportunities for the industry to demonstrate the contribution it can make to national climate change targets.

The National Environmental Guidelines for Indoor Piggeries (NEGIP) and the National Environmental Guidelines for Rotational Outdoor Piggeries (NEGROP) were developed by Australian Pork Limited (APL) to promote good environmental outcomes for siting, designing and managing indoor and rotational outdoor piggeries, respectively. They provide information used by producers and regulators to ensure best management practices are being used on-farm and in applications for new developments. To ensure the guidelines continue to represent best practice, they require regular review and updating. The NEGIP was last updated in 2018, and the NEGROP in 2013. APL have invested in a project to review both these guidelines to recommend updates. We expect the updated documents to be finalised by mid-2024. The requirement to meet general environmental duties (Vic and now proposed in Qld) is being considered as part of the update.

APL recognises that farmers and landholders need to continue to be engaged with, in relation to policy development with regards to the regulation of on-farm waste management practices. For the pork industry, an intensive animals industry, many of the negotiations with government have centred around emissions reduction and the management of animal effluent.

Since 2018 APL have invested more than \$1.8 million dollars in research to support on farm environmental outcomes. APL have active project worth more than \$800,000 in both research and extension to promote opportunities for the pork industry to contribute to the circular economy through innovations such as the production of biogas. This investment has extended to include dedicated resource to drive adoption of emissions reduction technologies which has seen good engagement and interest from farmers.

Providing a regulatory environment which supports producers to invest in technology is crucial. For example: Investment in modern anerobic digestion has both public and private benefits. Increased producer investment in biogas digesters would be a multifaceted win for the environment through a reduction in emissions, improvement in soil health and production of biogas.

However, in order to support long-term investment in on-farm innovations, farmers need confidence they are working within clear and consistent parameters. Investment in innovations such as biogas are capital intensive, and the cost benefit analysis can easily be skewed if the regulatory environment is inconsistent. It is crucial that the guidelines developed to provide advice on the new duties and powers support consistent implementation of the requirements across agriculture.

**Recommendation: That the EPA work closely with agricultural sectors to provide industry specific advice and support to meet the general environmental duties requirements.**

APL are currently working with 50 of our member producers across Australia to investigate the feasibility of anaerobic digestion of piggery manure either through digestion in covered anaerobic lagoons or in manufactured digester tanks. We are aiming for an increased adoption of anaerobic digestion by industry which in turn will deliver significant emissions reductions for the pork industry. As a part of the financial and technical feasibility work being undertaken, the digestate use and associated costs including testing, treatment and transport costs are assessed.

**Opportunities to work with the pork industry to understand and take into consideration biosecurity requirements when undertaking any proactive inspection or odour prevention activities.**

The pork industry prioritises animal health and welfare and has a recognised leadership position on biosecurity. Our focus and substantial investment in biosecurity as an industry is due to the range of diseases which pigs are susceptible to and the close proximity of a number of high impact emergency animal diseases in countries neighbouring Australia.

The Australian pork industry has been actively involved in collaborating with broader industry, government agencies and research institutions, to work together on biosecurity preparedness activities, surveillance, disease mitigation and prevention measures.

Following the lessons learned during the pork industries preparation for the African swine fever (ASF) threat and our experience in responding to the Japanese encephalitis virus (JEV) in 2022, additional

on-farm and across supply chain biosecurity activities have been supported by APL and implemented with significant additional investment by the industry.

APL are currently working with other State jurisdictions to support EPA officers to have a greater understanding of the biosecurity requirements when entering pig farms. More than 90% of pig farms accredited under Australian Pig Industry Quality Assurance program (APIQ ®) one of the requirements under the program is accurate records with regards to visitors to the farm and a need to ensure all visitors comply with the farms biosecurity requirements. These can differ between farms so contact with the farm managers prior to entering the property is crucial. This may require complying with full shower-in - shower-out protocols and wearing clothing provided by the farm during the inspection. Pig farms also require an isolation period prior to entering the farm after visiting other livestock farms or processing facilities. This can be between 48 and 72 hours, meaning that visits to pig farms require careful scheduling.

**Recommendation: That the EPA utilise the opportunity to work closely with the pork industry to understand the biosecurity considerations prior to implementing an inspection regime.**

**Opportunities to reduce emissions and build carbon stores in agriculture and the land?  
What are the main regulatory barriers to action?**

APL has developed a low Greenhouse Gas (GHG) emissions roadmap for the pork industry that outlines the key opportunities to reduce emissions in pork production.<sup>3</sup> Options include:

- Improving feed conversion (reduces feed waste and improves growth rates),
- Using by-products in feed and investigating low GHG diets,
- Methane capture from manure – for destruction or use as a renewable energy source,
- Manure solids separation, minimum stockpiling of waste, land application for fertilizer,
- Improving energy efficiency and increasing use of renewables, and
- Some potential for carbon storage in trees and soil if land is available.

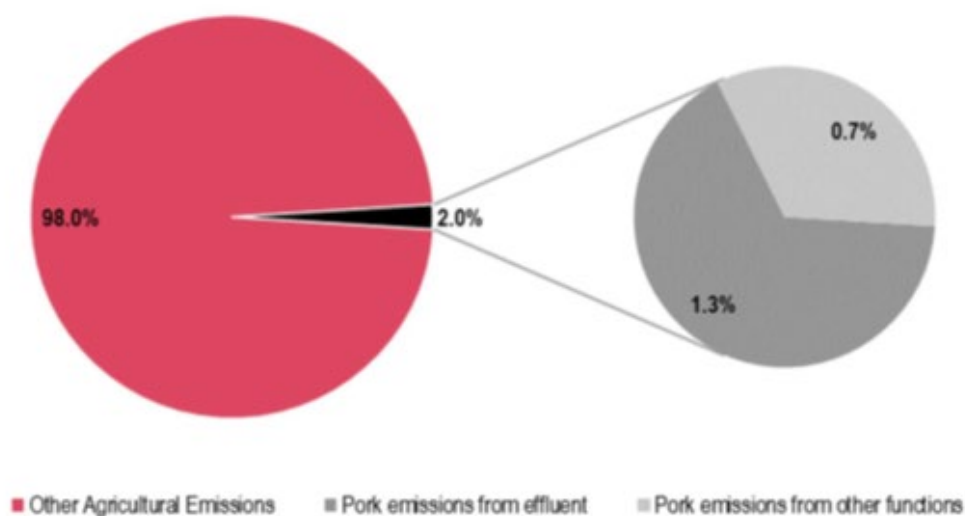


FIGURE 1 Australian Pork industry emissions as a percentage of total Australian agricultural emissions.

In 2023 APL commissioned ACIL Allen to prepare “Contributing to a Sustainable Planet” a case study looking at the opportunities and barriers to the use of biogas extractors on farm (included as Appendix 1).

Although pork has worked to decrease its emissions over time (a 73% decline since 1980) and is a low emissions protein relative to other sources (emitting just 3.3kg of greenhouse gases per kilo of liveweight) and accounting for just 2% of total agricultural emissions, there is further work that can be done. A significant proportion (as high as 66%) of emissions come from pig effluent (a waste mixture containing faeces, water, wasted feed).

There are a number of options pig farmers can investigate to help reduce emissions from effluent ponds which represent the biggest proportion of emissions on a conventional piggery. A 2009 APL funded project analysed these options and demonstrated that emissions from effluent treatment may be reduced by 62-80%. The mixture of methane and carbon dioxide emitted from ponds (known as biogas) has a moderate energy content, which can be used to generate heat or electricity. At the simplest level, the biogas from effluent ponds can be captured and burned, to destroy the methane and eliminate the global warming contribution.

One solution to management of effluent and reduction in emissions from effluent is biogas.

Biogas systems are strongly tied to APL’s sustainability focus areas ‘Carbon cycling and nutrient accounting’ and ‘Closing the loop to reduce waste’ (Figure 1) and contribute to APL’s target of “60% of production utilising waste recycling and renewable energy technology”.

Using biogas in a combined heat and power unit provided the largest reduction in GHG for the on-farm systems. While this is the most expensive system to install, it offers the best utilisation of the energy in biogas and may provide reasonable payback periods for investment.

Piggery effluent contains nutrients as well as carbon. Managing these nutrients is the other key to improving environmental performance of piggeries. Because nutrients are valuable crop and pasture inputs, beneficial utilisation will help improve sustainability of both piggery and cropping or pasture systems. Additionally, using nutrients from effluent (particularly nitrogen) in an efficient and sustainable way will further lower GHG emissions because it can offset the use of energy intensive synthetic fertilisers like urea. Best practice utilisation of effluent nutrients resulted in up to 18% lower GHG emissions for combined heat and power treatment systems.

Clear guidance on the process for reducing emissions (measurement, benchmarking) and information and guides on specific actions that can be taken (mitigation planning) is needed. Pork producers are time poor and may not know where to start in terms of reducing their emissions for their specific production set up. Key opportunities are known for the pork industry but can be hard to action. For example, with biogas capture and use, access to capital as well as time and technical know-how are known barriers. For those looking to reduce emissions through reducing imported soy content in diets there are barriers around access to alternatives and currently limited local low GHG alternatives and while by-products in feed can assist, there is difficulty in measuring the true impact of diverting these from landfill and they can require a specific type of feed system which is not common. Other factors that can act as barriers to action include access to labour (both on farm and for specific emissions reduction activities), access to technologies and building materials, inflation increasing the cost of action and land sizes which can reduce the possibilities to engage in sequestration activities.

### **Pork supply chain's active effects to support the environment and mitigate the impacts of climate change**

The Industry recognises the importance of acting to reduce emissions and mitigate the impacts of climate change. Climate change is expected to impact the pork industry in a number of ways:

- Increased biosecurity threats: Animal health specialists are predicting that increased temperatures, combined with biodiversity and species migratory changes, will lead to an increased risk of species specific and zoonotic diseases. The pork industry has responded to a range of animal disease threats (Swine influenza 2009, Japanese encephalitis virus 2022) while keeping a watchful eye on the potential threats from key exotic diseases such as Foot and mouth disease and African swine fever.
- Availability of stock feed: The grains industry will be particularly susceptible to the impacts of climate change. The quality and quantity of Australian grain produced and available as stock feed is expected to be impacted by:
  - Changes to the length of growing seasons impacting the varieties able to be successfully grown,
  - Erratic weather impacting the sowing or harvest periods,

- Weather damage reducing the quality of the grain, potentially impacting the availability,
- Greater potential for flood or heavy rainfall events to cause soil and crop damage, and
- Increased frequency of droughts or below average rainfall that drive grain prices considerably higher.

One area of considerable concern to the pork industry is the lack of national harmonisation across the environmental regulatory environment. As a national industry this creates considerable challenges for the pork industry and creates inequity and disincentives for investment. Consideration should be given to how the proposed law aligns with those in other states and within the emissions reduction strategies and other climate change mitigation actions being proposed by Local, State, Territory and Federal governments. Harmonisation of Australia's environmental laws and regulatory frameworks should be considered a priority.

We would be happy to share further information in support of our farming businesses, please contact the APL General Manager of Policy and Industry Relations, Tanya Pittard

( [REDACTED] ; [REDACTED] )

Yours sincerely,



Margo Andrae

**Chief Executive Officer**