



8 Dec 2023

Department of Agriculture, Fisheries and Forestry – [REDACTED]
via online survey

To the Branch,

Veolia is pleased to provide written feedback to the questions detailed in the discussion paper on **Agriculture and Land Sectoral Plan**.

Veolia is a global leader in water, waste and energy management. The group has close to 220,000 employees worldwide, including 6,500 employees in Australia and New Zealand. Our solutions contribute to the sustainable development of communities and industries. Through our three complementary business activities, Veolia helps to develop access to resources, to preserve available resources and to replenish them.

Veolia is also one of the world's leading developers of anaerobic digestion (AD), an important technology to support reduction of greenhouse gas emissions in the agricultural and land sector and across the economy. Veolia operates 126 AD and composting operations across seven countries, processing over 3 million tons of materials, and producing over 1 million tons of fertiliser and 44,000 MWh of electricity.

Our submission demonstrates AD is a safe and environmentally sustainable process used around the world to convert organic waste into valuable resources, including biogas and a nutrient-rich by-product known as digestate. AD has significant implications for a net-zero circular economy by reducing greenhouse gas emissions while managing organic waste management through resource recovery. Supporting an AD rollout will not only help the sector meet its climate targets but also National Waste Targets, including halving the amount of organic waste sent to landfill by 2030.

Organic waste is a 14 Mt per year issue for Australia, with primary production (31%) the second biggest source of national food waste – following closely behind households (34%)¹. When left untreated, organic waste (such as food processing waste, spoiled crops and silage/haylage, crop residue, other agricultural byproducts and waste water sewage sludge) breaks down and releases potent methane gas into the atmosphere. One tonne of methane is considered equivalent to 28-36 tonnes of CO₂ if looking at its impact over 100 years, making these emissions a major contributor to climate change.

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<https://www.dcceew.gov.au/sites/default/files/env/pages/25e36a8c-3a9c-487c-a9cb-66ec15ba61d0/files/national-food-waste-baseline-final-assessment.pdf>



AD efficiently decomposes biodegradable materials at high quantities and can deal with organic materials that other processing methods find problematic. In AD, the organic matter is placed in closed vessels where, in the absence of oxygen, microorganisms break it down, producing:

- **biogas**, a renewable energy source composed mainly of methane and carbon dioxide, and
- **digestate** which is used for organic fertiliser and can replace conventional fossil fuel-based alternatives.

However, Australia's current regulatory landscape poses significant obstacles to the widespread adoption of AD and is compounded by disparities among states and territories. Harmonisation of these regulations and alignment with broader national climate and waste goals will create the regulatory consistency needed to facilitate cross-border AD initiatives, simplify compliance, and create a more favorable environment for industry development.

AD facilities are dependent on biogas and biomethane offtake to ensure a consistent and profitable outlet for their energy production. The Agriculture and Land Sectoral Plan should consider a national biomethane certification program (under the new Guarantee of Origin Scheme) and setting a mandatory Renewable Gas Target with a certificate-based scheme (which is already being considered by NSW and Victoria) to both bolster the biogas and biomethane industry and in turn support AD development.

Priority state and territory policies include implementing and enforcing regulations mandating the separation and collection of organic waste at its source, simplifying and expediting the approval processes for AD infrastructure projects and establishing explicit guidelines and regulations for the beneficial reuse of digestate.

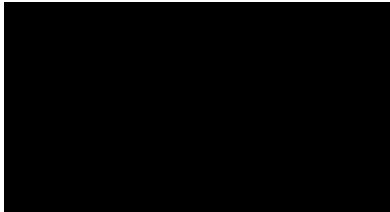
Lastly, not only will an AD industry in Australia lower the sector's greenhouse gas emissions, it will create jobs, stimulate local economies, and foster innovation in waste management. Modelling commissioned by Veolia shows that to meet the national waste plan target of an 80% average recovery rate from all waste streams by 2030, at least 17 organics processing plants with a capacity of 250,000 tons will be required, generating 3,947 jobs.

Bioenergy production also holds immense potential for regional development and the agricultural sector. Many bioenergy feedstocks originate from local agricultural activities, including residues from sugarcane and the livestock industry. Given the predominantly regional nature of these sectors, investing in bioenergy supports sustainable regional employment, offers additional revenue streams for farmers, and ultimately contributes to national economic growth.



Thank you again for the opportunity to provide feedback. We would be glad to meet with the department to share our insights and knowledge of this technology. Should you have any questions or require clarification on our submission, please be in touch with [REDACTED], Veolia's Policy Advisor on [REDACTED].

Yours faithfully,



RICHARD KIRKMAN
Chief Executive Officer & Managing Director