

# Opportunities in the circular economy

1 November 2024

Australian Government Productivity Commission

Inquiry into opportunities in the circular economy

Via online portal: <https://www.pc.gov.au/inquiries/current/circular-economy/make-submission#lodge>

## **Re: Opportunities in the circular economy**

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. Through our three complementary business activities, Veolia helps to develop access to resources, to preserve available resources, and to replenish them. In line with our goal of Ecological Transformation, our solutions contribute to the sustainable development of communities and industries.

Veolia supports the government's desire to reform waste and resource recovery in Australia and turbocharge Australia's transition to a circular economy. We agree that by minimising virgin material use and reducing waste from value chains, a more circular economy can reduce negative environmental impacts – such as greenhouse gas emissions, pollution, and biodiversity loss.

Our submission reflects learnings from Veolia's operations around the world, and the impacts of circular economy policies, in terms of what works, what doesn't, and what's easiest to deploy. We have outlined below the five major current opportunities that we believe will maximise circular economy outcomes in Australia in an environmentally and economically sustainable way. We believe industry leaders should play a greater role in the Circular Economy Ministerial Advisory Group to drive progress and ensure a coordinated approach.

### **1. Prioritise a mandatory packaging stewardship scheme**

Packaging materials represent a significant opportunity for improvement in achieving circularity, due to low current recovery rates, the ineffectiveness of voluntary schemes, and growing concern about the impacts of packaging that enters the environment. Veolia supports the Federal Government's progression of reforms to packaging regulation. Such reforms have the potential to ensure that all

packaging available in Australia is designed to be recovered, reused, recycled and reprocessed in line with circular economy principles. Veolia strongly supports the option of establishing an Extended Producer Responsibility (EPR) Scheme to achieve a circular economy for packaging. An EPR scheme shifts the responsibility for packaging circularity to the industries placing the packaging on the market, instead of burdening local governments and the recycling industry with this responsibility. An EPR scheme will create financial incentives to drive behaviour change, and can provide the necessary funding for improvements throughout the packaging supply chain.

The most important principles for consideration in an EPR for packaging are:

- Designing for recyclability;
- Minimum recyclability standards, based on material types, size, shape and construction;
- Mandatory recycled content requirements;
- Improved recyclability labelling;
- Ensuring sufficient recycling and reprocessing infrastructure; and
- Robust end markets for recycled commodities produced from packaging.

Veolia participates in the packaging supply chain through collection and recycling of discarded materials from municipal, commercial/industrial and construction/demolition sources. In Australia, we have a waste collection fleet of over 2,500 vehicles and operate four Material Recovery Facilities (MRFs), which sort mixed recyclable materials to produce saleable recycled commodities for subsequent manufacture into new products.

The material, size, shape and construction of packaging can all affect its recyclability through MRFs and in re-processing. Multi-layer and multi-polymer packaging is a primary impediment to recyclability. Unnecessary multi-polymer and multi-layer packaging should be disincentivised at the design stage. The EPR scheme should incentivise designing packaging with mono-materials, and phasing out laminated film. For flexible packaging, film should be standardised to a generic LDPE quality standard. Guidelines and limits should be developed for the use of adhesives, inks, lacquers and additional features (such as zippers and closures), which inhibit recyclability. These measures have been effective in changing supply chain behaviour in overseas jurisdictions, for example in Europe. Additives and chemicals of concern that impede recyclability include carbon black, oxo-degradables and PFAS, and these should be banned in new packaging.

Packaging circularity cannot be achieved without sufficient recycling and reprocessing infrastructure. Using the example of soft plastic packaging, even when recently announced new domestic soft plastics infrastructure facilities are built or upgraded, there will still be a gap of hundreds of thousands of tonnes per year between the amount placed on market and the available processing capacity. Funding for new or upgraded packaging recycling and reprocessing infrastructure should be assisted via EPR scheme revenue.

If new materials are to be accepted in kerbside recycling bins as part of circular economy initiatives - such as soft plastic packaging - MRFs will require significant upgrades in order to sort and recover this packaging from a mixed recyclables stream. Such upgrades should be funded by the product stewardship scheme or through the Recycling Modernisation Fund.

Collecting, sorting and processing post-consumer packaging, without viable end markets for the recycled polymers produced, will undermine circular economy principles. A robust domestic offtake market, backed by mandatory recycled content requirements, is required to drive market demand. Infrastructure development will not attract the necessary funding without secure end markets.

Community education is vital to effective circularity for packaging. Contamination of mixed recycling streams with non-recyclable materials is a primary issue for MRF operators. In domestic kerbside recycling streams, research commissioned by Veolia shows that Australian householders are confused about which bin to put household rubbish in, getting it wrong over 40% of the time. Whilst work is underway to standardise and harmonise recycling bin contents across jurisdictions nationally, consumers would greatly benefit from improved labelling on packaging that reflects the whole-of-life impact of the packaging, but more importantly, makes it very clear which bin packaging items should be put into. Additionally, if new materials are to be accepted in kerbside recycling bins - such as soft plastic packaging - a comprehensive, consistent and fully budgeted and ongoing community education program would be required, funded through the product stewardship program.

## **2. Implement nationwide food organics collection mandate and sustainable anaerobic digestion policy**

Veolia believes that mandating the separation and collection of organic waste at its source across the nation, with gradual enforcement of regulations where infrastructure additions by industry are required, will reduce waste disposed in landfills and significantly contribute to circular economy outcomes. These mandates will also support reducing the waste sector's 10 Mt CO<sub>2</sub>-e of annual emissions, which accounts for nearly 3% of Australia's net inventory emissions.<sup>1</sup> These emissions are predominantly methane generated from anaerobic decomposition of organic matter, which is 84-87 times more potent than CO<sub>2</sub> over a 20-year timeframe.

Around the world, governments and companies are recognising food waste as a valuable material in the circular economy. Modelling commissioned by Veolia shows that if all the food organics currently landfilled was processed using anaerobic digestion, this could provide roughly 3% of Australia's annual gas consumption, reducing fossil fuel use.<sup>2</sup> It also showed that at least 17 new 250kt/year

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<sup>1</sup> [GHG Emissions in Australia's Waste and Recycling Sector](#)

<sup>2</sup> Baseline Energy Production Potential of Waste (MRA Consulting Group)

organics facilities (anaerobic digestion and composting) will be needed to close the 4.3Mt gap in reaching Australia's target to halve the amount of organic waste sent to landfill by 2030.<sup>3</sup>

A nationwide mandate is required to guarantee the food organics supply that investors need to commit to the construction and operation of these facilities. The mandate must also be accompanied with investment in a major consumer education campaign to lower contamination rates and increase participation rates.

### **3. Reform landfill levies**

Landfill levies can act as a powerful regulatory tool to improve recycling and recovery rates. Higher waste levies, with increases over time, are positively associated with increased resource recovery rates and reductions in waste landfilled, supported by data from Australia and overseas jurisdictions.

However in Australia, regional and inter-state variations in levy rates have led to a levy avoidance industry, where waste is improperly disposed of in areas with low or no levies. This results in increased stockpiling, illegal dumping and long distance or interstate road transport of waste. The Australian Government, through channels such as the National Environment Ministers' Meetings, should promote harmonisation of landfill levies nationally.

The effectiveness of a landfill levy in contributing to circular economy outcomes also depends significantly on how the generated funds are allocated. A 2019 review by National Waste and Recycling Industry Council (NWRIC) found the portion of levy funds allocated to waste and recycling activities ranged from as low as 20% in NSW<sup>4</sup>. When states allocate a low percentage of levy funds to waste and recycling activities, it diminishes the intended goal of improving waste management and resource recovery. If levies are invested in innovative technologies and infrastructure, such as energy from waste facilities, landfill capacity constraints can be overcome and circular economy outcomes improved.

### **4. Ensure continued global trade in paper and cardboard recovered in Australia**

Global trade of quality recyclates creates buoyancy and security to end markets. Exported recyclates sold to accredited and legitimate overseas recyclers return to Australian shores as packaging for imported foods and other goods, showing the circular economy in action – with a legally defined process protecting the environment. Australia's high-quality recycled commodities export industry is worth an annual \$4 billion and plays an essential role in the circular economy.

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<sup>3</sup> Australian Waste and Resource Recovery Industry & the Circular Economy (MRA Consulting Group)

<sup>4</sup> [NWRIC White Paper – Review of Waste Levies in Australia](#)

Some matters remain of concern to the recycling industry regarding exports of recycled commodities, pertaining to the *Recycling and Waste Reduction (Fees) Amendment (Export of Regulated Waste Material Fees and Other Measures) Rules 2024* (the Rules). We are concerned about the circular economy impacts stemming from the cost and timeframe increases within the following provisions in the Rules:

- In the event a contract variation is required to an export licence, the holder must pay a government fee of \$13,540 for each and every change; and
- Every variation must be approved in writing by the Minister directly, which we believe might be an excessive burden for the government, as opposed to approval from a relevant departmental official, particularly where delays may be incurred due to any scheduling availability, or an event such as caretaker mode;

To successfully operate in export markets, variations to end customers and sales routes are commonplace. The above aspects of the Rules are of concern for the following reasons:

- The impost on exporters of hundreds of thousands of dollars per year for variation fees;
- Time constraints due to needing Ministerial approval for each variation (which also adds unnecessary administrative burden for Ministers who are occupied with matters of government).

These Rules are particularly concerning for the historically very successful recycled paper and cardboard export market, due to the lack of competition in the domestic paper pulping and re-processing sector, whereby Australian companies exporting recycled fibre to access competitive markets would be subject to commercially unfavourable conditions via significant fees and the need for ongoing Ministerial intervention.

If the Rules are passed as they are currently tabled, we strongly believe that more recyclables will be landfilled, cost impacts will be passed onto householders, and inequitable market conditions will result, which will undermine circular economy outcomes for fibre.

## **5. Ensure long term sustainable solutions for residual waste**

Even with a maximised circular economy, some non-recyclable residual wastes will remain and require sustainable best-practice solutions. In NSW particularly, existing landfills are approaching closure, and Greater Sydney will face landfill capacity shortages by 2030. This issue of diminishing landfill capacity requires forward planning and presents an opportunity to replace landfill with more sustainable alternatives for residual waste.

Australia should move to prioritising energy-from-waste (EFW) facilities, which recover valuable energy from material that would otherwise be disposed of in landfills. EfW supports the circular economy through a shift up the waste hierarchy. By converting waste into heat and electricity through combustion, as well as enabling recycling of metals and reuse of aggregates, EfW facilities manage waste effectively and efficiently, providing up to 99% diversion of waste from landfill and avoiding the long-term environmental legacies associated with landfills.

Modelling commissioned by Veolia shows that to close the 3Mt gap in reaching Australia's target of an 80% average resource recovery rate from all waste streams, whilst adhering to the principles of the waste hierarchy, the nation will need at least 12 new 250kt/year energy recovery facilities by 2030.<sup>5</sup>

Veolia successfully operates over 65 EfW facilities globally. Veolia will be responsible for the operation and maintenance of Australia's first EfW facilities: the Kwinana Waste to Energy Project and East Rockingham Resource Recovery Facility, both in WA. These facilities will divert over 100,000 tonnes per year of waste from landfills.

While progress is being made, there are opportunities to further align state regulations, such as those in NSW and Victoria, with established European best practices for EfW facilities. By harmonising these standards, we can create an environment that encourages sustainable development while maintaining high safety and environmental standards. To fully realise the potential of the EfW industry in Australia and reduce our reliance on landfills, it would be beneficial to establish a consistent national policy framework. This approach could help provide the certainty that industry stakeholders need to invest confidently. A collaborative effort between states, territories, and the federal government could focus on developing cohesive policies that address key areas such as:

- Aligning emission standards with international best practice;
- Reviewing and optimising landfill levy structures; and
- Streamlining planning approval processes.

By working together towards these goals, we can create a more sustainable waste management system that benefits both the environment and the economy.

Thank you for the opportunity to provide feedback on the transition to a circular economy. If you require further information, please contact Miriam Cumming, Veolia's Policy Advisor .

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<sup>5</sup> Australian Waste and Resource Recovery Industry & the Circular Economy (MRA Consulting Group)

Yours faithfully,

RICHARD KIRKMAN

Chief Executive Officer & Managing Director

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### **About Richard Kirkman**

**Dr Richard Kirkman** has been CEO of Veolia Australia and New Zealand since 2020, having worked in energy and waste management for over 30 years. He is an engineer and a Board Member of the National Waste & Recycling Industry Council. In Richard's previous position at Veolia UK, he oversaw major waste infrastructure development and completed a PhD on *Infrastructure for the Circular Economy: The Role of Policy in System Change* at Imperial College London. In the UK he was a founding member of The Department for Environment, Food and Rural Affairs (DEFRA) Council for Sustainable Business, a member of Board of the UK Plastics Pact, and Commissioner for the Green Innovation Policy Commission.

