

Submission on “Recycling and resource recovery infrastructure. Evidence base report October 2019”

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Introductory comment

In general, a specific strategy should be developed for each type of waste resource, as each has different properties and different potential markets. Optimally, each strategy should be based on the holistic Pressure-State-Response concept, to optimally identify all needs and effective responses. Here I use plastic waste as an example, where applicable.

Address to your specific questions

- ***Have we identified the right outcomes for Victoria to aim for?***

Yes, in general you have identified useful general outcomes. For instance, waste-to-energy processing should only be used for residual waste.

- ***Have we identified the most effective potential actions for government to take?***

Given your report is limited to a general overview by the terms of reference, you have only made general recommendations for government action. Below I show specific recommendations about improving recycling plastic waste resources, based on my report, “Plastic future: How to reduce the increasing environmental footprint of plastic packaging”, https://www.researchgate.net/publication/337323374_Plastic_future_How_to_reduce_the_increasing_environmental_footprint_of_plastic_packaging.

1. Government actions

- a. Provide regulations and supporting policy, that:
 - i. Robust after-use systems are to implemented, to efficiently reduce environmental leakage and optimise reuse and recycling of plastics.
 1. To standardise collection options across the state, to support improved efficiency of recycling.
 2. To include commercial composting systems to process compostable bioplastics.
 3. Three plastics; PET, HDPE and LDPE are to be recycled, while PP bottles can be reused.
 - ii. To minimise leakage of plastic to the environment, all plastic transport vehicles in the plastic lifecycle train, including pre-fabrication plastics, or plastic packaging, are to be identified by a specific placard located on the rear of the vehicle.
 1. All certified transport vehicles are to have fully closable containment, particularly without open tops.

- iii. Systems be implemented to help consumers to reduce plastic litter and improve plastic recycling:
 - 1. Use of single-use plastics should be minimised, and replaced by compostable bioplastics where possible, combined with local bins that accept compostable bioplastics.
 - 2. A container deposit scheme would help people understand the value of plastic containers, and the importance of recycling these.
- b. For reuse or recycling of particular plastics it is clear that one type of companies is missing in the Victorian waste system. So, there needs to be at least one new company to be setup, to be dedicated to processing each particular type of plastic.
 - i. The State Government to support development of new waste companies of these types through LaunchVic.
- c. Commercial composting companies: there are only two listed on the AORA website for Victoria. It is likely that more will be required to support state-wide composting of compostable plastics, food and green waste.

The government should support related actions in other sectors

2) Packaging suppliers and manufacturers

- a. Be members of the Australian Packaging Covenant Organisation.
- b. Utilise sustainable packaging guidelines.
- c. Use the Packaging Recyclability Evaluation Portal at the design stage.

3) Fast food companies

- a. Preferentially use compostable cups, plates, cutlery and straws.

4) Municipal and commercial waste treatment systems

- a. Collect all frequent types of municipal waste for reuse or recycling, including soft and hard plastics and food waste (infrequent waste, for example, e-waste, be taken by individuals to local collection points).
 - i. Domestic food and garden green waste be collected together, weekly.
 - ii. Fast food organic waste, including compostable plastics, be combined with municipal organic waste for commercial composting.
- b. Preferentially apply reuse or recycling methods for most plastics, to be consistent with the circular economy strategy.
- c. By corollary, downcycling of plastics should be avoided or minimised.

- ***Which, if any, of the initiatives implemented in Wales would you like to see applied in Victoria?***

In general, the approach used by the Government of Wales is reasonable. Though, I don't think fines on local government would be useful.

- ***What do you think of the market design opportunities proposed to improve waste sector outcomes and efficiency?***

Your market analysis is quite reasonable. If possible, processing of waste resources should optimally include International markets as end-users, that is to be part of the international circular economy. For example, efficient plastic packaging recycled to monomers, would potentially have an international market. This is obvious since we buy products from around the world.

- ***Where do you think government should focus their efforts to increase recycling and resource recovery? (for example, through setting targets, promoting consistency or funding local councils?)***

Given the major problems in the current recycling system, The Government needs to act in a number of key areas, including setting targets and consistency in waste resource collection across the state.

The Government could also usefully provide incentives for (a) startup companies to fill in the missing commercial activities in the Australian/Victorian waste resource industry and (b) existing local companies to use recycled materials.

Also, taxes should NOT be made on virgin materials (ref p 27), as this could make local companies uncompetitive in international markets. Also, this is not needed, as for instance, in the plastic sector, compostable bioplastics have a niche market, for which clients are willing to pay extra for the environmental value of compostable bioplastics.

- ***Which materials or infrastructure types present the most opportunity in your region?***

A detailed strategy to support a state-wide approach to the waste resource recycling issues should identify regional opportunities, based on existing local strengths and human resources.

- ***What is a legislative barrier or enabler that you have encountered when trying to use recycled materials?***

Updating Australian, Victorian and local Government procurement guidelines to include sustainability and recycled content requirements is essential. The Government could also usefully consider pre-approval or certification of recycled products for appropriate uses.