

# Recycling and resource recovery infrastructure advice – Consultation summary April to August 2019

In April 2019, the Victorian Special Minister of State asked Infrastructure Victoria to provide advice on the infrastructure requirements for increased recycling and resource recovery. You can read the full request on our website at [infrastructurevictoria.com.au/advice-on-waste-infrastructure-in-victoria/](http://infrastructurevictoria.com.au/advice-on-waste-infrastructure-in-victoria/).

To develop the advice, Infrastructure Victoria is examining the state of the waste sector, drawing on interstate and international comparators and research, and undertaking modelling and analysis. Consistent with our values, stakeholder engagement will shape our advice and we are working closely with the sector to build on existing work and understand stakeholder views, issues and opportunities.

Our program of engagement is underway, with the first phase focussed on gathering evidence on the state of the recycling and resource recovery sector in Victoria and globally, and seeking to confirm the priority issues and areas of focus for further analysis.

This document is a brief summary of what we have heard in this initial phase of engagement.

## Summary of engagement activities

From April to August 2019, we met with and heard from many organisations and individuals from across the waste sector who provided valuable input and helped us to refine the scope of our research and analysis.

Our engagement activities included:

- online feedback/submissions collected via Infrastructure Victoria's consultation website from 23 May to 28 June
- two stakeholder workshops in Melbourne - on 13 June and 6 August
- three stakeholder workshops in regional Victoria – Shepparton, Ballarat and Traralgon
- one-on-one meetings with interested stakeholders.

This phase of consultation sought feedback on the key issues and barriers facing the waste and resource recovery sector in Victoria, and opportunities for new approaches in the future.

We received 46 submissions from a broad range of stakeholders representing individuals, local government, the waste sector, energy, manufacturing, infrastructure and the environment. A further 160 stakeholders attended our workshops in Melbourne and across Victoria where we shared our proposed approach, early technical work and discussed with participants the barriers and opportunities for the sector.

## What we heard

Our approach to this advice is to ensure the infrastructure requirements for the waste and resource recovery sector are considered alongside the policy and market settings that underpin the sector. Feedback so far has validated this approach, covering topics ranging from product design standards, collection and sorting models, education, infrastructure investment and the strategic direction of the sector. Many of the points raised by stakeholders aligned with key areas of focus we identified through our early research and preliminary discussions with stakeholders. We found there was an overarching theme of the need for policy clarity and certainty for households, businesses and waste sector operators. We also received some new information and issues to consider.

Below is a summary of issues that were most commonly raised by stakeholders and/or were identified by stakeholders as the highest priority for consideration.

### Issues for businesses, households and consumers

- Most households don't have sufficient information about what can and can't be recycled, which leads to challenges with separating materials and causes contamination. On top of this, inconsistent sorting and collection approaches

across different local government areas can add to the confusion. Consumer education and consistent approaches to sorting and collection across municipalities would help (e.g. consistent bin lid colours).

- Materials need to be separated higher up the recycling chain than at the Materials Recovery Facilities (MRFs). Sorting at the household level is often cheaper for the system – but households have little incentive to do so.
- Recent examples of recyclables going into landfill have led to mistrust in the system and a loss of consumer goodwill. This can have a negative impact on recycling behaviours.
- Purchasing recycled or recyclable products is difficult. There should be consideration of standards and requirements to design out packaging that cannot be recycled – such as composite materials – and encourage or mandate recycled materials into new packaging. Considerable opportunities exist to improve packaging design and recycling.
- The cost of products and packaging does not reflect the cost of waste disposal or recycling, and virgin (new) materials do not include full cost of their negative impacts, making it hard for recycled materials to compete.

### Issues in collection and sorting

- Better infrastructure to support collection at multi-unit developments (MUDs) is needed – current approaches lead to poor sorting and contamination issues.
- The recovery sector in Victoria is consolidated, with operators holding considerable market power. This has implications for the resilience of the sector in Victoria, leaving it vulnerable to shocks.
- Co-mingling of recyclables can lock in contamination of material streams and increase costs
- Container deposit schemes (CDS) allow higher quality material streams and added value, can be implemented efficiently and cost-effectively, and require high levels of public support. Victoria is the only jurisdiction in Australia that has not introduced, or committed to introduce, a CDS.
- Smaller communities could benefit from alternative collection systems, particularly for organic waste, given the impact of transportation costs on value. Cost of recycling in regional and rural areas can be prohibitive - remoteness, transport costs and lack of scale all present challenges. High transport costs in regional areas incentivises greater compaction of materials, which can impact the quality of recyclables (especially where co-mingling occurs).
- There are opportunities for greater regional recovery and processing, rather than relying on metropolitan Melbourne for these services. This would also resolve some of the transport challenges faced by regional areas.

### Issues in recycling and recovery

- Victoria and Australia have had an over-reliance on exporting waste to international markets that are no longer accepting our waste, therefore there are opportunities to increase Victoria's capacity and capability to manage its own waste. There is a need for increased secondary processing or 'value-add' for recovered materials such as plastics, and end markets for recovered materials need to be further developed.
- Organics has untapped potential for re-use, as one of the largest waste types by volume with a low recovery rate. However, current Food Organic and Garden Organic (FOGO) collection and processing systems do not provide the optimum resource recovery for these potential resources and often result in the production of large volumes of low value contaminated composted material for which there are limited markets.
- Waste management infrastructure hubs and landfills listed as 'key infrastructure' in the Statewide Waste and Resource Recovery Infrastructure Plan (SWRRIP) often do not enjoy broad support from the local community due to environmental and amenity impacts. Protection of these sites from sensitive land use encroachment could be improved.
- The landfill levy settings need to be changed to encourage uses higher up the waste hierarchy than landfilling. The current cost of landfilling in Metropolitan Melbourne is significantly lower than many other Australian and European jurisdictions. This has made it extremely difficult for markets to be established that promote higher order outcomes up the waste hierarchy. Differences in the landfill levy between states are also an issue. Victoria has the lowest metropolitan levy rate on the eastern seaboard, which opens the door to unnecessary interstate waste transportation and disposal.
- New materials pose significant risks unless new approaches to recovery and disposal are developed. For example, lithium batteries are a risk to the environment without appropriate end-of-life management. If stockpiled, there is fire risk, and if fire occurs, contaminated run-off is a threat to waterways.
- State government has a role to play in demonstrating leadership by procuring recycled products across all departments and agencies, particularly for building, civil, and infrastructure works.

- The lack of investment in large scale waste to energy facilities in Victoria is in part due to the lack of a Waste to Energy policy, which would provide guidance and increased certainty to government agencies, local government and investors.

## Regional Victoria

Infrastructure Victoria held three workshops in August in Shepparton, Ballarat and Traralgon. The workshops were an opportunity for local councils, industry and other regional stakeholders to discuss the barriers and opportunities for the recycling and resource recovery sector specific to their region. Here is a summary of what we heard.

### Priority barriers and opportunities

At each workshop, participants were asked to identify region specific barriers and opportunities for the recycling and resource recovery sector, and then undertake a prioritisation exercise. The below table is a summary of the priority barriers and opportunities identified by the workshop participants.

	Shepparton	Ballarat	Traralgon
<b>Barriers</b>	<ul style="list-style-type: none"> <li>• Consistent education is needed, including more focus on waste avoidance.</li> <li>• End market returns are volatile, resulting in a lack of investment.</li> <li>• For the commercial and industrial sector, there is no tracking of waste disposal for skip operators/rubbish removalists.</li> </ul>	<ul style="list-style-type: none"> <li>• There is a lack of regional processing capacity for municipal solid waste.</li> <li>• Some products are hard to recycle i.e. medium density fireboard and polystyrene.</li> <li>• For the commercial and industrial sector, there are small volumes of materials/waste generated across a broad region – costly to find reuse options.</li> </ul>	<ul style="list-style-type: none"> <li>• There should be more education on contamination for municipal solid waste</li> <li>• There is a lack of local infrastructure and technology for processing municipal solid waste.</li> <li>• Cost per tonne and grid connection were identified as barriers for waste to energy.</li> </ul>
<b>Opportunities</b>	<ul style="list-style-type: none"> <li>• There should be more regionally located manufacturers of recycled products.</li> <li>• There could be an offer of 10 cents for recycling glass and aluminium cans.</li> <li>• A government procurement policy could support the reuse of materials.</li> </ul>	<ul style="list-style-type: none"> <li>• There should be investment in regional MRFs and processors.</li> <li>• There is an opportunity for the EPA to play an education role as well as regulator.</li> <li>• Pyrolysis processes were identified as being an opportunity, particularly for biochar from organic waste.</li> </ul>	<ul style="list-style-type: none"> <li>• To support end markets and the waste to energy sector, companies could be guaranteed feedstock to secure investment.</li> <li>• Development of regional commercial and industrial waste management co-operatives would help to facilitate recovery opportunities.</li> <li>• In general, food waste from the commercial and retail industry is an opportunity.</li> </ul>

### Key themes of feedback from regional Victoria

There were some consistent themes raised across all of our workshops in regional Victoria. They were:

- High transportation costs were identified by each region as being a barrier for improved recycling and resource recovery due to long distances between locations. In some cases, it is more economical to use landfill instead of using recycling or reuse processes. Specifically, there is a need to tailor collection systems for small/remote communities due to high transportation costs.
- There is a lack of local MRFs and processing capacity in the regions. More investment in MRFs and processors would create opportunities for lower transport costs and more jobs in the regions.
- There are opportunities in regional Victoria to collocate waste and related facilities. This could incorporate facilities such as waste-to-energy facilities, quarries, landfills, recyclers etc. Zoning changes could be implemented to ensure these areas were classed as special use zones. Co-locating services could maximise resource recovery and recycling outcomes for regional areas.
- Across regional Victoria, FOGO has been rolled out successfully in some areas and presents an opportunity to reduce waste going into landfill. For example, Warrnambool City Council ran a successful pilot of FOGO in 2018. Around 1680 houses participated in the trial and, of the participants surveyed, 88 percent said they would be

willing to pay for the service ongoing. Overall, the trial showed that a permanent FOGO collection was viable. The success of the trial resulted in FOGO bins being available on an ongoing basis in Warrnambool.

- There is a lack of end markets in regional areas for recycled or reused products. This was identified as a priority issue in all the regions.

### Additional feedback

Other specific feedback we heard included the following:

- Regional and rural areas are more likely to have social license for new waste facilities due to their availability of space. This needs to be weighed up against costs of transport and the ability to aggregate significant waste volumes for a viable market. For the region of Gippsland, developing waste-to-energy facilities is a significant opportunity because of the history of the energy sector in the region.
- Although there may be lower landfill levy rates in regional Victoria, gate fees may be higher.
- There is limited ability to obtain insurance for new facilities to operate. There is no domestic insurance available resulting in operators attempting to seek insurance from overseas which presents difficulties, including increased costs.
- Pyrolysis processes were identified as being an opportunity for the sector, particularly for timber waste and biochar from organic waste.
- For those regions that are near the borders of New South Wales or South Australia, there are opportunities for cross-border collaboration, particularly around having skilled workforces and the availability of industrial land.

### Next steps

In October to December 2019 we are seeking feedback on our evidence base and work done to date. Submissions are invited and are open until 6 December 2019.

We will undertake further technical work before providing our final advice to the Special Minister of State in April 2020.

You can find out more about our advice or sign up to receive our updates by visiting [infrastructurevictoria.com.au](http://infrastructurevictoria.com.au).

# About us

Infrastructure Victoria is an independent advisory body, which began operating on 1 October 2015 under the *Infrastructure Victoria Act 2015*.

Infrastructure Victoria has three main functions:

- preparing a 30-year infrastructure strategy for Victoria, which is refreshed every three to five years
- providing written advice to government on specific infrastructure matters
- publishing original research on infrastructure-related issues

Infrastructure Victoria also supports the development of sectoral infrastructure plans by government departments and agencies.

The aim of Infrastructure Victoria is to take a long-term, evidence-based view of infrastructure planning and raise the level of community debate about infrastructure provision.

Infrastructure Victoria does not directly oversee or fund infrastructure projects.