

A Blueprint for household recycling

Recycling at a household level is the most widespread voluntary environmental activity in our community, with many individual efforts leading to significant achievement in resource conservation and carbon reduction. Understandably, there is great frustration when our recycling systems are in turmoil. The challenges in exporting recyclables, the SKM fiasco, and uncertainty about the effectiveness of our efforts are undermining recycling morale.

This week the Victorian Government announced a much-needed overhaul of our kerbside recycling services. In framing an effective service, we need to start with how we are going to turn discarded materials into new products and then work back to design the collection and sorting systems that deliver market ready materials.

Our current systems are focussed almost exclusively on a narrow range of packaging. This needs to be broadened to match the key materials generated in the home. This will mean starting with a bin for the collection of food and garden organics – the biggest components of our current disposed materials. Over twenty councils are already doing this.

The present arrangement of putting a range of recyclable packaging in the one bin is failing us as we lose a third of the glass we present through excessive breakage and seriously contaminate the paper and cardboard with glass fragments which undermine recycling of paper and damage the paper making equipment. For this reason, we need to collect glass food and beverage bottles and jars separately from the other materials. This allows clean glass to go back into new bottles and improves the quality and value of all other materials. This method is used across much of New Zealand and many parts of Europe with success.

The remaining materials (paper, plastics and metals) can be collected and sorted more successfully without glass and this recycling needs to be expanded to cover soft plastics, the fastest growing form of consumer packaging. By asking householders to put all soft plastics in a bag in their yellow top bin we can efficiently sort this material for recycling. Educating householders and designing a comprehensive, consistent and convenient service can reduce contamination. The tiny number of uncooperative households will need a warning and may then have their recycling bin removed.

With food and garden organics and a broad range of packaging and paper diverted for recycling and a focus on avoiding waste, the residual bin should contain very little garbage and can be reduced in size. The four bins – organics, glass, other recycling, and residual waste can mostly be collected fortnightly. The lower frequency of collection and increased value of recyclables helps to offset the cost of an additional bin. For skip collection from multi-unit residential developments, we can also separate paper and cardboard for delivery straight to the paper recycling mill. Once again this is standard practice in most of Europe.

When recyclables are delivered for sorting, we need certainty about the management and destination of this material. All sorting sites need to be structured to sort materials to local recycling specifications (e.g. newsprint separate from cardboard, PET plastic separate from polyethylene). They need to be regularly audited to ensure achievement of set diversion targets and stockpile management. The destination of recyclables should be relayed back to councils and residents to motivate us to drive down waste.

As much as possible we should recycle into new products at a local level. This will mean major expansion of plastics recycling capacity. Some export of material will probably be required but this needs to be monitored to avoid us sending hazardous material to developing countries.

The recycling loop has still not been completed until government and industry purchase the recycled material in the form of new products. Brand owners need to increase the recycled content of their packaging to the technical limits. Government agencies such as VicRoads and Parks Victoria need to receive ministerial direction to prioritise the use of recycled content plastics and other materials into posts, boardwalks, seats and road making materials.

Funds collected from landfill levies need to help fund this transition to a robust world-leading approach, including support for recycling plant establishment and new bin infrastructure at council level.

If we join the rest of Australia in adopting a container deposit scheme, it must be done properly, including all beverages and preferably all rigid packaging. The deposits need to be redeemed for material flowing through our kerbside system to increase its economic value, not confined to a limited number of reverse vending machines.

Our households also generate durable products reaching end of life such as clothing, appliances, furniture, mattresses, bikes, toys and more. We need to develop a network of neighbourhood reuse and recycling drop off points for these.

Once we have these in place, we can make a decision about whether the much-reduced residue of waste should go to landfill or to another form of treatment. Everything outlined here is already working well somewhere else so let's copy the best and recycle right.