Beverage Carton Recycling Webinar Q&A

These questions come from the Beverage Carton Recycling Webinar hosted by Planet Ark on 23 July 2024. Expanded answers can be found in the webinar recording.

Q: How do councils and recyclers access recycling support from Tetra Pak?

To discuss support options directly with Tetra Pak, Vikas Ahuja can be contacted via: vikas.ahuja@tetrapak.com

If you would like further information about how councils have implemented Liquid Paper Board recycling in their area, Lisa Coffa from Yarra City Council can be contacted via: lisa.coffa@yarracity.vic.gov.au

Q: Are there other recycled products being explored that can be made from cartons?

saveBOARD is a full carton solution, that means the whole carton, including caps and straws can be recycled together, and has been chosen as the main recycling solution for that reason. There are currently other recycling options being explored in Australia, for a product called Wet Lap. This is semi-processed pulp that contains about 50% moisture content. Wet Lap is shipped to paper mills where it is used to make finished paper products.

Q: How many tonnes of liquid paper board cartons were being sent offshore before 2019?

Approximately 8,000 tonnes were being shipped overseas for processing prior to 2019. This figure is referenced in the Planet Shapers video shown in the webinar.

Q: Are there any volatile organic compounds (VOCs) associated with saveBOARD?

No, the process of creating saveBOARD does not require adding any glues or resins. Shredded cartons are simply heated and pressed to create the finished product. Existing polyolefins, a thermoplastic polymer now also being derived from renewable resources (e.g., sugar cane), acts as the binding agent replacing the need for compounds like formaldehyde found in

plywood. saveBOARD has the 'Declare' label from the International Living Future Institute certifying its compliance with the Living Building Challenge.

Q: Are you planning to expand to all other Victoria MRFs?

Yes. AI Robotics may not suit all MRFs. Some, including CDS MRFs, are using optical sorters. Tetra Pak is committed to expanding beverage carton sorting for MRFs and can be contacted for tailored support for local MRF developments.

Q: Also given the link to producers like Woolies etc., are there plans to offer in store drop-off collections or inclusion in CDS schemes for all format sizes?

This would require the States & Territory's CDS regulators to expand the range of beverage cartons which are eligible under the CDS. Tetra Pak is very supportive of this and encourages all parties to approach their State & Territory governments to ask for CDS to be expanded.

In store drop-offs do not provide the access, convenience or incentive of kerbside collection and CDS and typically see very low recovery rates. It is difficult to foresee drop-offs except as a back-up.

Q: What is the cost of recycling - is it a free drop off or are there disposal costs?

For kerbside collection, there are no discrete or incremental fees. Collection would be part of recycling services paid for by our rates.

Drop-off services do not incur a fee either.

For containers eligible under CDS, consumers are entitled to a 10c refund per container.

Q: Do we know if any CDS cartons are exported in Victoria, you mentioned that some companies involved in CDS still export them overseas where there's more demand for the product etc.?

Traditionally, CDS cartons have been exported because the demand for this paper fibre is much higher in countries such as South Korea, Malaysia and India. The exact destination for export changes because of the cost for virgin pulp and availability of recovered fibre. At the time of recording, it is understood that the first lot of CDS cartons in Victoria are awaiting export.

Q: While we wait for CDS to expand, is there capacity / appetite for collections to be set up from local government recycling events or programs?

Yes, please contact Tetra Pak to discuss options. Vikas Ahuja can be contacted via: vikas.ahuja@tetrapak.com

Q: If CDS collection is expanded to include Tetra Pak, what proportion of material will likely be collected through CDS compared to MRFs and/or the residual waste steam?

Ideally, a larger range of CDS eligible containers at MRFs will leverage revenue for MRFs so cartons will be sorted regardless of whether they are returned through CDS or through kerbside comingled collection. At present, of the total tonnage of beverage cartons which are collected for recycling, about 80% is through kerbside comingled collection and about 20% through CDS.

Q: Will we have similar issues to soft plastics recycling, with the quantity to be recycled way larger than the capacity to produce saveBOARD and the demand for it? And only relying on limited manufacturing facilities.

Making reliable, consistent quality products from a soft plastics stream is challenging because many different materials are used to make films, bags and other soft plastics packaging. Mechanical methods cannot effectively recycle a mixture of many different materials in one stream.

In contrast, saveBOARD is being sold into the construction panel market, with building standards and environmental certifications. saveBOARD products perform as well as existing options in terms of parameters such as bracing strength, but at a cost which can be up to 30% cheaper. Currently, at full supply, saveBOARD could service about 1.5% of the construction panel market. So, they are selling into a very large established market as a 1 for 1 replacement for existing products.

Q: Also, while finding a solution to recycling Tetra Pak and LPB is fantastic, I'd still really like to see more focus on waste 'avoidance' rather than recycling. What's Planet Arks' thoughts on this?

We acknowledge the greater impact of the higher level 'R' strategies, such as reduce, reuse, etc., and we're always looking to communicate those actions to our audience so that they can be part of the transition to a circular economy. We promote this through our programs such as National Recycling Week, Recycling Near You and the ACE Hub.

Tetra Pak cartons are 30% lighter (or more mass efficient) than comparable rigid packaging for beverages. Using less material is the first 'R' (Reduce) and that means the environmental impacts of Tetra Pak cartons can be lower just because they use less material.

Q: Are there any options being explored in Western Australia?

Tetra Pak is always looking for new solutions for recycling cartons. They are currently in discussions with Adarsh Fibre in Perth to develop a local recycling solution, as well as working with the CDS scheme operator to expand the range of CDS eligible beverage cartons. They have recently established a new recycler in Timor Leste to support the Northern Territory CDS and its proposed expansion.

Q: Are there any comments on other options or end of life management of the saveBOARD?

saveBOARD can be recycled back into itself endlessly. This currently happens with the offcuts returned by builders, as well as the 'multi-use' boards being sold as hoardings for construction sites, and soon for advertising signs.

Q: Aside from saveBOARD, how have the cartons collected through the CDS been recycled? Are there recycling options aside from saveBOARD, that separate the materials etc?

Most recovered beverage cartons are being sent to 're-pulpers'. Beverage cartons remain a high value commodity in markets outside of Australia, in countries such as South Korea, Malaysia, and India due to the high quality of the fibre in Tetra Pak packaging. By leveraging international demand through exports, recycled products can find a broader customer base.

Q: Where is the Curby carton collecting happening?

For beverage cartons they are currently being trialed in Central Coast, NSW.

Q: How much does saveBOARD cost compared to other plasterboard materials?

saveBOARD is more expensive than plasterboard. However, saveBOARD is on parity with plywood and cheaper than MDF. For bracing, saveBOARD is about 30% cheaper than Eco-ply.

Q: Does the AI robot remove all the Tetra Pak cartons at the MRF you mentioned, or are some still in the incorrect material streams?

The robot has a reliability of >90%, so the vast majority are being sorted.

Q: Is the volume of Tetra Pak cartons collected more than the volume of saveBOARD being purchased?

Yes, however the CDS and MRF operators can direct the recovered beverage cartons to saveBOARD or export them for sale. So, there is no limitation on what is collected.

Q: If all councils start to accept and collect Tetra Pak cartons, will the material collected be recycled into product that is purchased and used? As it sounds like there are not enough customers purchasing saveBOARD at the moment.

The saveBOARD plant in Warragamba was commissioned in November 2022, so they are still in their infancy. saveBOARD products will be certified under CodeMark and EPD within the next quarter, which will help them increase sales into large-scale commercial projects.

Tetra Pak is also working with 4 other projects around Australia to increase beverage carton recycling.

Q: What are saveBOARD and Tetra Pak doing to increase the demand for the product, so it is sustainable?

saveBOARD and Tetra Pak are taking steps to increase the demand for their sustainable building products through awareness campaigns and media engagements including Channel 7's The Morning Show, and Better Homes & Gardens, and Channel 10's Planet Shapers. Participating in these shows to showcase their low carbon and circular products allows them to reach a broad audience, demonstrating how the building materials can be used in everyday life and showing that cartons that are already made mostly from renewable materials can also be recycled locally here in Australia.

Have more questions?

If you have any further questions, or would like more information on any of the information shared during the webinar, feel free to contact Planet Ark or Tetra Pak.

Planet Ark can be contacted through: enquiries@planetark.org

Tetra Pak can be contacted via Vikas Ahuja through: vikas.ahuja@tetrapak.com