



Equipment, Features

Game changer in soft plastics stakes

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Australian Paper Recovery (APR Plastics) is tackling the soft plastic issue at its Kerbside Material Recovery Facility. The company's Soft Plastics to Oil initiative aims to provide a solution to help tackle Australia's soft plastic pollution problem.

The roll-out of the project will involve the introduction of the Biofabrik WASTX technology. The unit, the P1000, is an advanced recycling unit that will convert soft plastics such as chocolate wrappers and bread packaging, into feedstock oil for plastic remanufacture.

APR Plastics managing director Darren Thorpe believes the machine will be a game changer in terms of making good use of one of the most problematic waste streams in the world. He realises that the machine is but a small step, but it's all about momentum.

"About 3.5 million tonnes of plastic is made in this country every year, that's how much we have available to be able to recycle," he said.

"We're not going to get all of that, but this is a very good solution to help us reach national recycling targets. It's a drop in the ocean but it starts the ball rolling."

The first one-tonne Biofabrik WASTX unit is undergoing commissioning on site at the APR Plastics Sorting Facility in Dandenong South, Victoria.

APR Plastics worked with Plastoil Australia and Biofabrik Group to deliver the solution to the market in March this year.

This initiative will escalate and almost double Australia's capacity to recycle soft plastics by 2024.

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The project is anticipated to divert soft plastics that are currently not collected and processed through the kerbside stream from going to landfill. Using the pyrolysis method, it is seen as a circular solution for plastic waste. The unit is a sealed system, which means it has little to no emissions compared to traditional disposal methods such as incineration.

The P1000 transforms waste plastics such as multi-layer films into high-quality, energetically usable products. Pyrolysis is the process of applying high temperatures under zero oxygen conditions, to break down products.

This modular-based plastic recycling plant allows for ease of scalability and the opportunity to recycle plastic waste through the innovative pyrolysis process while solving critical environmental issues sustainably.

Manufactured by the [Biofabrik](#) Group in Germany, it is the first of its kind in Australia.

One unit has the capacity to process up to one tonne of plastic per day.

One tonne of plastic waste becomes 840 kilograms of recycled oil.

However, Thorpe is not resting on his laurels. Although with the new one-tonne machine that is being commissioned, he is already thinking 'bigger', with a five-tonne machine that is capable of processing up to 1800 tonnes of soft plastics annually heading Down Under. The five-tonne machinery is anticipated to arrive in August 2022. With this unit, 5000 kilograms of plastic waste can make 4200 kgs of recycled oil.

And if that isn't enough, he has even bigger goals – a massive 50-tonne unit is in his sights, with an application via the Federal Government's Recycling Modernisation Fund having already been lodged to help fund the venture. The one-tonne piece of equipment is seen as the testing ground for bigger and better things.

"We want to make sure we can give the end user a quality material with minimal contaminants," Thorpe said. "For every hour we put 40kgs of plastic in, theoretically we should be getting 32kgs of oil out, but there's a lot of information we don't know about the types of plastics and contaminants.

"There's a lot of testing to be done before we start production. We've got to crawl, walk, and then run."

Thorpe's team includes special projects manager Logan Thorpe, who is adamant that this isn't just about taking soft plastics out of landfill. There is a bigger picture, too.

"We have companies overseas through connections with Biofabrik who will take the oil, but we want to keep it in Australia," he said. "We want to be part of the Remade in Australia [initiative]."

"We've got big aspirations," Darren Thorpe said. "We've done enough homework to see this is the way of the future. There's a lot of seasoned industry people getting excited about this. There are a lot of other companies looking at it in different shapes and forms, but we're the forerunner.

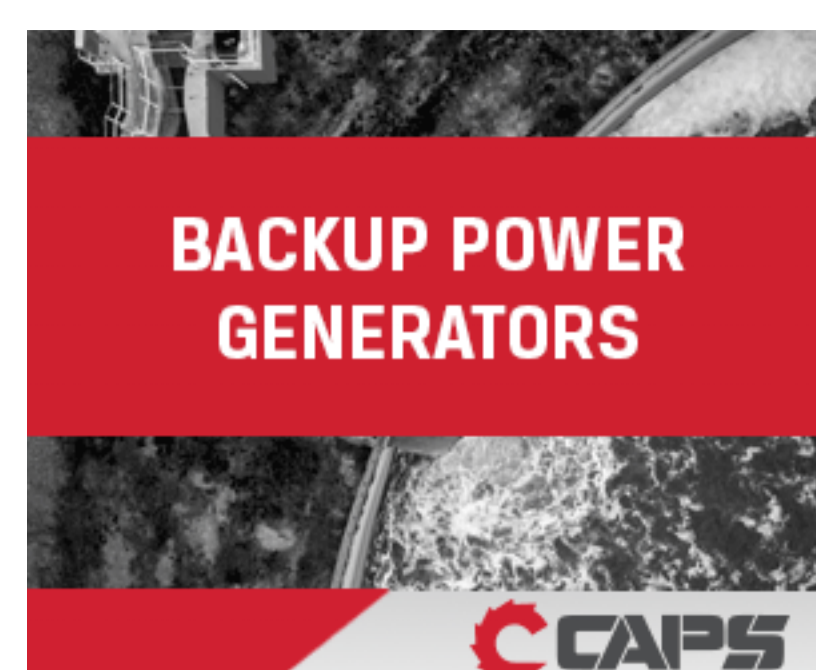


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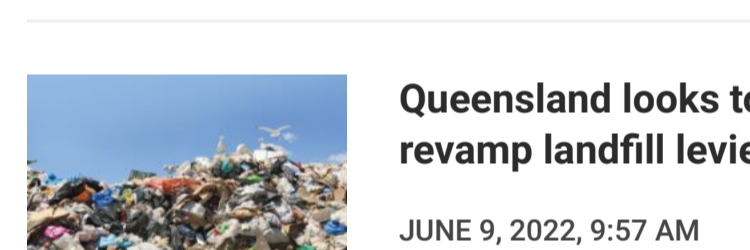
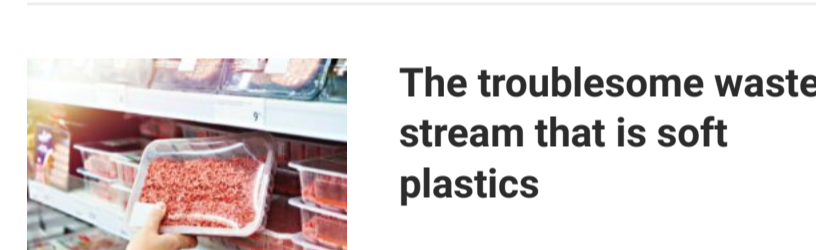
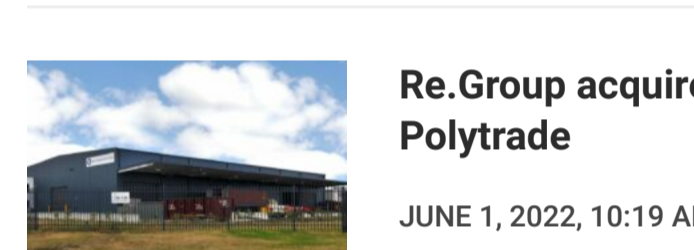
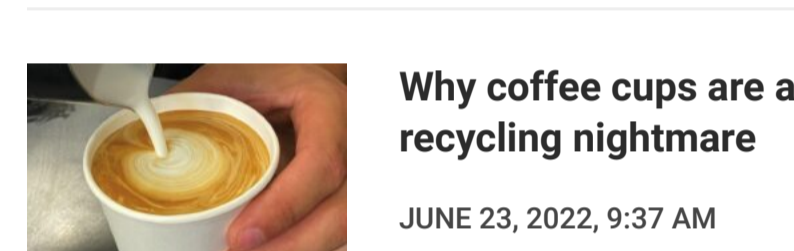
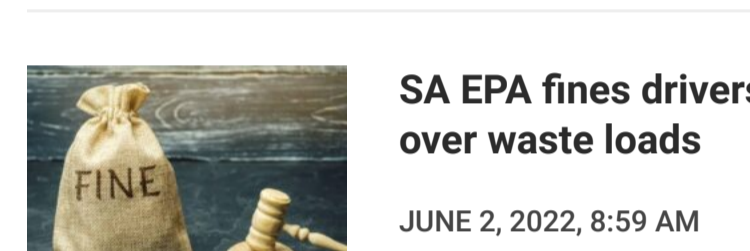
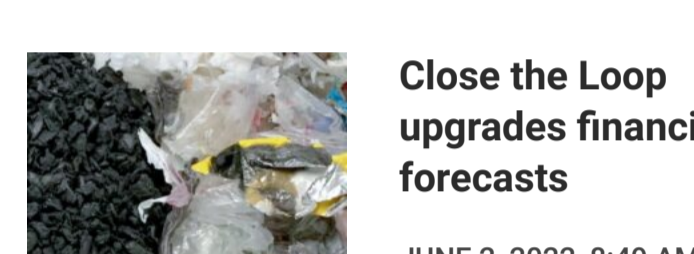
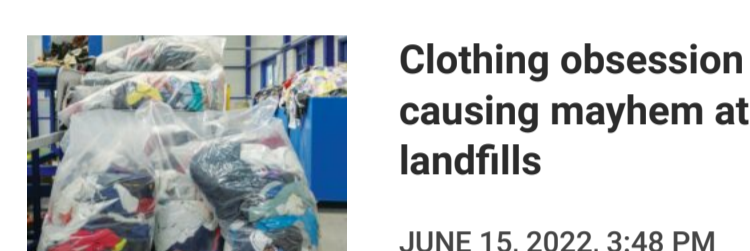
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