Coles, Nestlé, LyondellBasell, Licella and iQ Renew announce study into Australian-first for recycling

A new collaboration marks the first step into a circular economy for soft plastic packaging with technology developer Licella, recycler iQ Renew, Coles, polymer manufacturer LyondellBasell and Nestlé, today announcing a joint feasibility study to determine the technical, economic, and environmental benefits of a local advanced recycling industry.

The feasibility study will look at potential sites in Victoria for an advanced recycling facility using innovative Australian technology called Cat-HTR™ (Catalytic Hydrothermal Reactor), a form of hydrothermal liquefaction technology developed by Licella. The Cat-HTR™ technology has been recognised by Prime Minister Scott Morrison for its potential to help tackle the growing global issue of plastic waste[i].

Advanced recycling offers new life to old soft plastic by turning it back into oil. This oil can be used to produce new soft plastic food packaging from recycled soft plastic, such as flexible packaging used for confectionery, bread bags, cereal liners, biscuit wrappers and flexible packaging used to protect fresh produce.

With the National Packaging Targets requiring industry to use an average of 50% recycled content in packaging by 2025, the demand for recycled content, especially food-grade plastic, is expected to grow significantly.[ii] Without local supply, brands will be forced to source packaging from overseas.

Licella CEO, Dr Len Humphreys, explained that advanced recycling in Australia can give food brands access to the food-grade recycled packaging they want, while giving Victoria an opportunity to lead the nation in creating a circular economy for plastics.

“We believe advanced or chemical recycling has an important place in the future circular economy for plastic, creating greater value and less emissions than waste to energy,” Dr Humphreys said.

CEO of iQ Renew, Danial Gallagher, further explained that advanced recycling would significantly increase the amount of plastic that can be recycled in Australia.

“Advanced recycling complements existing mechanical recycling, as it can process plastics that are difficult to recover mechanically, such as soft plastics, multi-layer packaging and plastic that has been degraded by repeated mechanical recycling,” he said.

Coles Group Chief Sustainability, Property and Export Officer Thinus Keeve said accelerating the development of local recycling forms part of the company’s ambition to be the most sustainable supermarket in Australia.

“We are committed to working together with industry to find ways to reduce the impact we have on the environment and we understand the importance of being part of a more sustainable future for plastic packaging for our customers, our team and the communities we serve. The potential to completely close the loop on soft plastics and convert it into food-grade soft plastics that could then be used in our Own Brand packaging, would be a game changer – we are delighted to be supporting the feasibility study, which is a vital step in bringing this cutting-edge technology to Australia at scale.”

Mitchell Killeen, Managing Director of LyondellBasell Australia, said that as part of one of the largest plastics, chemicals and refining companies in the world, the company aspires to be an industry leader in the production and marketing of recycled and renewable-based polymers.

“Our ambition is to produce and market two million metric tons of recycled and renewable-based polymers annually, by 2030. This is a major commitment which will enable our customers and value chain partners, in turn, to transform their businesses.”

Nestlé Australia CEO Sandra Martinez said that the company wanted to be part of finding new approaches to boosting recycling of plastic packaging.

“While Nestlé wants to reduce its use of virgin plastics and increase our use of recycled packaging, this won’t happen without the whole plastics value chain working together. This feasibility study will provide an important key to developing a better future for soft plastics in Australia,” Ms Martinez said.

FOR MORE INFORMATION:

Licella & iQ Renew: Andrea Polson, andrea.polson@licella.com, +61 433 464 675
Coles: media.relations@coles.com.au, Coles Media Line (03) 9829 5250
LyondellBasell: esther.clason@lyondellbasell.com, +31 6 388 269 30
Nestlé: Margaret Stuart, margaret.stuart@au.nestle.com, +61 412 893 080

NOTES:

- **Soft (flexible) plastics** are those which can be scrunched into a ball, like such as flexible packaging used for bread bags, cereal liners and biscuit wrappers unlike 'rigid' plastics such as bottles and tubs which are moulded and hold their shape. While rigid plastics can be recycled back into food grade packaging, this capability has not been available for soft plastics.
- **The Cat-HTR™ process for plastic** delivers 3-4 times more value and 45% less CO_2 emissions than Waste to Energy. Cat-HTR™ yields around 85% oil, with the balance becoming gas that can power the reactor.
- **Licella Co-Founder and Co-Inventor** of the Cat-HTR technology, Professor Thomas Maschmeyer, was awarded the Prime Minister's Prize for Innovation in Science in 2020, recognising his work in helping to translate fundamental research into two pioneering technologies, including the Licella Catalytic Hydrothermal Reactor (Cat-HTR™).
- The **National Packaging Targets** administered by the Australian Packaging Covenant Organisation (APCO) include the following targets by 2025:
  - 100% reusable, recyclable or compostable packaging.
  - 70% of plastic packaging being recycled or composted.
  - 50% of average recycled content included in packaging.
  - The phase out of problematic and unnecessary single-use plastics packaging.
- Exports of mixed plastic waste have been banned from July 2022 under the Recycling and Waste Reduction Act, meaning that domestic solutions for plastic waste must be in place by this date.

THE PARTNERS:

Licella has developed its patented Catalytic Hydrothermal Reactor (Cat-HTR™) platform- the World's most commercially advanced hydrothermal liquefaction ('HTL') technology. HTL is the 'next-generation' of chemical or advanced recycling, chemically transforming low value feedstocks into oil, which can be refined to high value fuels and chemicals. With more than A$100M invested over 13 years, the Cat-HTR™ technology is now commercial ready and proven across a wide range of feedstocks, including waste biomass and End-of-Life Plastic. www.licella.com

iQ Renew is an Australian recycler, processing kerbside recyclables and creating new links between Australian community and industry. As the early adopter of CurbCycle's Curby Program, iQ Renew is rolling out the collection, processing and measurement of targeted recyclables for product stewards in a secure, fun and rewarding way. www.iqrenew.com

Coles is a leading Australian retailer, with over 2,500 retail outlets nationally. Coles makes life easier for Australians by delivering quality, value and service to the 21 million customers who shop with us each week. We are reliable and responsible for delivering on our purpose to 'sustainably feed all Australians to help them lead healthier, happier lives'. We have been working with REDcycle since 2011 and thanks to our customers across the country have collected more than 1.4 billion pieces of soft plastics that have been turned into furniture, playground equipment, roads and most recently used in some of our supermarket carparks. Coles is a signatory to the Australian Packaging Covenant and an active member of APCO, supporting the 2025 National Packaging Targets including working towards 100% reusable, recyclable or compostable packaging by 2025 for our Coles Brand products.

LyondellBasell (NYSE: LYB) is one of the largest plastics, chemicals and refining companies in the world. Driven by its employees around the globe, LyondellBasell produces materials and products that are key to advancing solutions to modern challenges like enhancing food safety through lightweight and flexible packaging, protecting the purity of water supplies through stronger and more versatile pipes, improving the safety, comfort and fuel efficiency of many of the cars and trucks on the road, and ensuring the safe and effective functionality in electronics and appliances. LyondellBasell sells products into more than 100 countries and is the world's largest producer of polymer compounds and the largest licensor of polyolefin technologies. More information about LyondellBasell can be found at www.LyondellBasell.com.

Nestlé Australia is part of the global Nestlé group. Our vision is that none of our packaging, including plastics, ends up in landfill, in oceans, lakes and rivers, backed by a commitment that 100% of our packaging will be recyclable or reusable by 2025. We're also eliminating non-recyclable plastics, supporting the development of a market for food grade recycled plastic packaging, and committed to reducing our use of virgin plastic by a third by 2025. www.nestle.com

[i] Scott Morrison Address to the UN General Assembly
[ii] 2017-18 Australian Plastics Recycling Survey - National Report