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Australia financing projects to modernize recycling infrastructure

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Integrated Recycling

Integrated Recycling, owned by Pro-Pac Packaging Ltd., has already received backing for a project making railway sleepers containing up to 85 percent recycled waste plastic.

The Australian government has committed A\$250 million (US\$160 million) to a Recycling Modernization Fund (RMF), of which A\$60 million (US\$38.4 million) is dedicated to the RMF's plastics technology stream.

A spokesman for the Department of Climate Change, Energy, the Environment and Water (DCCEEW) told *Plastics News A*\$47 million (US\$30 million) has been allocated so far to 60 plastics recycling projects across the country.

Applications for funding opened in July and will be accepted until Nov. 13.

Successful applicants can get grants ranging from A\$1 million (US\$640,000) to A\$20 million (US\$12.8 million) but must commit to providing at least 50 percent of the project funding themselves. Additional grants may be available from state and territory governments.

The DCCEEW spokesman said projects approved so far account for more than A\$320 million (US\$204.9 million) of joint government and private sector investment.

Mike Burns, director of the DCCEEW's RMF team, in a webinar, said the type of eligible projects are:

- Advanced recycling projects targeting hard-to-recycle plastics such as mixed, multilayer, flexible or contaminated plastics.
- Commercialization and scaling up of emerging and trial technology targeting circularity of hard-to-recycle plastics.
- Infrastructure upgrades and innovative technology to help extract and process plastics contained within products, such as e-waste, into higher-value products.
- Proposals to equip existing or new material recovery facilities or plastic recovery facilities with advanced sorting, separation and decontamination technology, such as optical or robotic machinery to increase the diversion of plastics from landfill.
- Proposals by consortia that provide "end-to-end solutions and circularity in the plastics supply chain."

Federal Environment Minister Tanya Plibersek told ABC Radio the RMF aims to shift 1 million metric tons of waste into recycling to help meet the national target of recycling 70 percent of plastic packaging by 2025.

She said a review by the industry-led group Australian Packaging Covenant Organization (APCO), which set the voluntary 70 percent target, showed only 18 percent of Australian plastic packaging was recycled which was "shocking" and showed voluntary targets had "failed dismally."

In June, the nation's state, territory and federal environment ministers together agreed to mandate plastic packaging design standards and targets for recycled content, but their joint communiqué issued after the meeting did not include specific percentages. Plibersek said the mandatory targets will be in place by 2025.

"It's a tough job but we have to make the effort because too much plastic is leaking into our environment and waterways, and micro and nanoplastics are getting into our bodies through the meat and fish we eat," she said.

Plibersek said the government also plans to introduce a "plastic passport", which will track the type of plastics in products. DCCEEW issued a discussion paper on traceability of resin types in July and comments closed at the end of August.

Plibersek told the ABC: "Plastic packaging manufacturers say they would be more confident in using more recycled content if they are 100 percent sure of the different polymers in the pellets they get from recycling facilities."

In a webinar on the passport proposal, a DCCEEW spokeswoman said traceability has benefits for businesses from greater efficiencies.

"Traceability requires a close look at the route recycled content takes, from the source to the end market, which can provide a clearer view of ineffective processes or risks, helping to achieve operational efficiencies and cost reductions. It will increase transparency, as traceability can help companies prove green claims, giving consumers confidence and providing a competitive advantage," she said.

The discussion paper said traceable products can attract a price premium to capitalize on the growing demand for them. "In Europe, for example, post-consumer recycled PET flake commanded a higher price in 2019 than virgin PET," the paper said.

Plibersek also told the ABC the Australian Government is playing a leadership role in international negotiations to establish a global, legally binding instrument to end plastic pollution. The United Nations Environment Assembly on March 2, 2022, agreed to seek to finalize the treaty text by the end of 2024 in a multinational Coalition to End Plastic Pollution.

Projects approved for funding under the RMF's plastics technology stream include:

• Integrated Recycling, owned by Pro-Pac Packaging Ltd., which is adding a production line at its Mildura, Victoria, facility to manufacture railway sleepers containing up to 85 percent recycled waste plastic.

- Queensland-based pipe manufacturer Vinidex Pty. Ltd. is installing infrastructure to recycle polymers into new pipe products.
- Injection molder Socobell OEM Pty. Ltd. Is manufacturing slab foundations for the construction industry from 100 percent recycled plastics.
- Astron Sustainability is establishing a new facility in Albury, New South Wales, to convert 3,000 to 5,000 tonnes annually of low-grade, post-consumer plastic into high-grade high density polyethylene, low density PE and polypropylene resins.
- IM Holdings (Tas) Pty. Ltd. Will produce injection molded aquaculture cages from waste plastic from the aquaculture sector.
- Sydney-based Licella Holdings Ltd. has a trial project to commercialize mixed plastics recycling using a hydrothermal liquefaction technology platform.