



13 November 2020

Envirostream Australia Update

Envirostream Australia Pty Ltd (‘the Company or ‘Envirostream’) – a 90% owned subsidiary of Lithium Australia NL (ASX: LIT) wishes to announce its continuous improvements to safety, environmental performance and permitting further to its announcements of 29 September 2020 and its Quarterly Report for the period ending 30 September 2020.

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Environmental protection and sustainability

Envirostream is Australia’s national leader in battery recycling, providing sustainable solutions for the disposal of end-of-life batteries (‘EOL’) and the ‘rebirthing’ of the energy metals contained in EOL lithium ion batteries (‘LIB’s’). Envirostream’s Melbourne plant is the only commercial facility in the country capable of recycling all types of EOL batteries to produce a range of materials, including mixed metal dust (‘MMD’). Comprising the ‘active’ compounds recovered from EOL LIBs, including critical battery materials such as cobalt, nickel, lithium and manganese, MMD can provide a sustainable feed source for the manufacture of new batteries.

Envirostream’s LIB material recovery rate of +90% is very high compared with overseas competitors that incinerate the batteries at the commencement of the recycling process. The incineration process reduces mass yield and creates a risk of toxic atmospheric emissions. In contrast Envirostream’s low-temperature processing, unlike its competitors, recovers volatile components, including plastics, resulting in much higher mass yields and lower carbon emissions.

Victoria banned the disposal of batteries to landfill in July 2019. Many of those batteries contain toxic materials capable of polluting soil, groundwater and waterways. Envirostream, being the only mixed battery recycler in Australia, is focused on diverting the maximum amount of battery material from landfill and improving sustainability of the battery industry by creating the circular economy.

On 11 September 2020, the Company applied for an EPA Victoria works approval for one of its Melbourne premises to operate above 500 tonnes per annum (tpa) of specified e-waste due to its expected growth in both battery collection and recycling volumes. Envirostream has never operated above 500tpa of specified e-waste at any of its Victorian sites and was previously not required to hold an EPA license to operate. Envirostream notes there has been industry wide confusion around battery classifications as specified e-waste and that battery recycling is a new industry where best practice is still evolving. Envirostream has had regular discussions with regulators about its licensing requirements. Following discussion with EPA Victoria in mid 2020, the Company commenced preparing an application for an EPA license to operate a scheduled premise. The EPA has not issued Envirostream with any breach notices following its visits to the Company’s premises. The Company is currently working very closely with the EPA to demonstrate industry best practice at Australia’s first battery recycling facility. Envirostream continues to work through the EPA’s process with the view to its application for a license to operate a scheduled premise. The Company continues to operate at below the 500tpa of specified e-waste processing rate and has



taken steps to significantly minimize the stock levels at each of its premises to mitigate risk.

In early September 2020, the ACCC authorised the Battery Stewardship Council ('BSC') to establish and operate a national stewardship scheme for managing EOL batteries. The intent is to commoditise EOL batteries: placing a levy on new batteries at the point of sale to supplement the cost of subsequent collection and recycling. Implementation of the stewardship scheme should significantly increase the volume of EOL batteries Envirostream recycles as well as significantly increasing its margins on its collection and recycling operations.

Envirostream is committed to establishing a LIB and mixed battery recycling industry in Australia which is critical to removing this hazardous and toxic waste from landfill, and returning the recovered components to the circular economy. Envirostream believes it has the safest and most environmentally sustainable solutions to the battery collection and recycling in Australia and is also a global leader on closing the loop on battery materials.

Safety in battery collection, transport and recycling

	2020 YTD	Industry Benchmark
Lost Time Injuries (LTI)	0	n/a
Lost Time Injury Frequency Rate (LTIFR)	0	10.7

Envirostream is pleased to report that during the 2020 calendar year it has not had a single LTI since Lithium Australia acquired its controlling interest in November 2019. Envirostream has now gone 14 months since its last LTI.

Envirostream does note WorkSafe Victoria has visited Envirostream's premises on a number of occasions to inspect the Company's safety practices and has issued the Company with a number of improvement notices. All of the improvement notices have now been actioned by the Company. Envirostream's safety culture is a high priority for the Company and it continuously reviews its safety procedures and systems with a view to keeping all its stakeholders safe and improve on its safety record.

Envirostream has been developing industry wide improvements to ensure safety improvements in collection, storage and processing of batteries and to further reduce associated fire risk. During the time Envirostream has been collecting and recycling batteries, it has become apparent that one of the highest fire risks is the incorrect packaging of EOL mixed or lithium ion batteries at collection locations. Whilst Envirostream cannot control the battery packaging from externally managed collections, a number of mitigating strategies have been implemented by the Company at its facilities to reduce the likelihood of a fire, including:

- installation of an early heat detection system and fire detection alarms to its recycling facility with site continuous monitoring,
- the storage of mixed battery types has been changed from steel to plastic containers, with LIB's processed as a priority to minimize inventories of dangerous goods,

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- significantly increasing its mixed battery sorting capacity to allow the safe storage of LIBs,
- following EPA Victoria guidelines for management and storage of combustibles recyclable and waste material,
- process equipment modifications, which include additional cooling water points, procedural changes to safe operating practices and additional operator training to reduce fire risks, and
- actioning risk mitigation advice from Fire Rescue Victoria.

The biggest challenge for Envirostream is handling mixed batteries collected from its network of collection points. It's clear that sorting and separation of battery types at these collection points will be difficult if not impossible given the wide range of battery types and the confusion this generates.

To mitigate the risk of an incident, Envirostream has commenced research and development of fire-resistant collection containers for roll out in its network. Significant effort has gone into designing fire resistant collection boxes, bags, crates and containers to reduce the fire risks associated with battery collection and storage.



Photo 1 & 2: Fire resistant bags and container to minimize fire risks



Photo 3: Battery storage boxes



Photo 4: Secure battery storage boxes



Photo 5: Class 9 battery storage and transport stillage

It is important to note that there are no other EOL mixed battery shredding and processing facilities in Australia and with lithium ion batteries becoming part of everyday activities, there is a growing need for the industry to continue to evolve to manage this constantly increasing hazardous e-waste stream and fire risk.

Envirostream will continue to improve its own collection network and will continue to work on improving and leading the industry in this area through its affiliation with its existing suppliers and the Australian Battery Recycling Initiative.

Envirostream has begun identifying additional storage, sorting and recycling sites to expand its operations nationally as EOL battery volumes are expected to grow significantly. The Company has also begun a process to partner in additional recycling facilities in other priority jurisdictions around the world.

Nothing disclosed in this announcement is expected to have any material effect on either the December 2020 Quarter or the FY21 revenue for the Lithium Australia NL Group.

Envirostream continues to work very closely with the regulatory bodies to ensure its management systems, safety and environmental procedures are better than industry accepted standards and to minimize the risks to the local communities. Envirostream is focused on continuous improvement to ensure its battery recycling in Australia safe, environmentally friendly and the most sustainable practice.

Authorised for release by the Board.

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About Lithium Australia NL

Lithium Australia aims to ensure an ethical and sustainable supply of critical materials to the battery industry by creating a circular battery economy. In particular, the recycling of EOL lithium-ion batteries to create new battery cathode materials is intrinsic to this plan. While rationalising its portfolio of lithium projects/alliances, the Company continues with R&D on its proprietary extraction processes for the conversion of all lithium silicates (including mine waste), and of unused fines from spodumene processing, to lithium chemicals. From these, Lithium Australia plans to produce advanced components for the battery industry globally, including for stationary energy storage systems marketed in Australia. By uniting resources and innovation, the Company seeks to vertically integrate lithium extraction, processing and recycling while enhancing energy security.

About Envirostream Australia Pty Ltd

Envirostream is a national leader in battery collection and recycling. It operates the only commercial facility in Australia capable of shredding all types of EOL batteries to efficiently recover a range of recyclable materials – in particular mixed-metal dust, which comprises the critical ‘active’ materials in EOL lithium-ion batteries. Mixed-metal dust contains cobalt, nickel, lithium and manganese, making it a sustainable feed source for the manufacture of new batteries. The Envirostream process is designed for zero atmospheric emissions and very low soluble losses, and only minimal amounts of material are consigned to landfill. Together with its high mass yields, this positions Envirostream as the planet’s most environmentally credentialled battery recycler.

Forward-looking statements

This document contains forward-looking statements. Forward-looking statements are necessarily based on a number of estimates and assumptions that, while considered reasonable by the Company, are inherently subject to significant technical, business, economic, competitive, political and social uncertainties and contingencies, involve known and unknown risks and uncertainties that could cause actual events or results to differ materially from estimated or anticipated events or results reflected in such forward-looking statements, and may include, among other things, statements regarding targets, estimates and assumptions in respect of commodity prices, operating costs and results, capital expenditures, ore reserves and mineral resources and anticipated grades and recovery rates and are, or may be, based on assumptions and estimates related to future technical, economic, market, political, social and other conditions.

The Company disclaims any intent or obligation to update publicly any forward-looking statements, whether as a result of new information, future events or results or otherwise. The words ‘believe’, ‘expect’, ‘anticipate’, ‘indicate’, ‘contemplate’, ‘target’, ‘plan’, ‘intends’, ‘continue’, ‘budget’, ‘estimate’, ‘may’, ‘will’, ‘schedule’ and other, similar expressions identify forward-looking statements. All forward-looking statements made in this presentation are qualified by the foregoing cautionary statements. Investors are cautioned that forward-looking statements are not guarantees of future performance and, accordingly, investors are cautioned not to put undue reliance on forward-looking statements due to the inherent uncertainty therein.

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Many known and unknown factors could cause actual events or results to differ materially from estimated or anticipated events or results reflected in such forward-looking statements. Such factors include, but are not limited to: competition; mineral prices; ability to meet additional funding requirements; exploration, development, operating and sales risks; uninsurable risks; uncertainties inherent in ore reserve and resource estimates; dependence on third-party smelting facilities; factors associated with foreign operations and related regulatory risks; environmental regulation and liability; currency risks; effects of inflation on results of operations; factors relating to title to properties; native title and Aboriginal heritage issues; dependence on key personnel, and share-price volatility. They also include unanticipated and unusual events, many of which it is beyond the Company's ability to control or predict.

