
Battery recycling
for our future.
tasmanian
independent
retailers
IGA
ecobatt
your battery recycler
WHEN IT'S FLAT
THINK ECOBATT.
ecobatt
1300 32 62 92
www.ecobatt.net

About us

Ecocycle and subsidiary **Ecobatt** is a national recycling company specialising in Mercury recovery Battery and E-waste recycling.

Ecocycle is Australia's only National EPA Licenced, purpose-built Mercury distilling/recycling facility and is highly recognised by all Industry & Government bodies as the only 'End of Life' recycler of mercury bearing wastes (Inc. E-waste, Batteries) across the country.

Battery recycling has now become a major component of our business through subsidiary Ecobatt.
Our multimillion-dollar state of the art Automated Battery separation and processing plant is located here at our Victorian facility and is an integral piece of our fully integrated battery recycling process.

In addition, Ecocycle have invested heavily in the development of battery safety and fire prevention here in Australia. Providing industry best risk migration from transport, storage, sorting and recycling for all battery chemistries. Ecobatt industry leading lithium storage containers are purpose built to provide world class battery fire risk migration.

The Recycling group of companies

The **Ecocycle** group focuses on specialty waste streams. Recycling mercury bearing materials, e-waste, lighting and batteries.

Recycling mercury bearing material, batteries, lighting and e-waste.

The **Recycal** group focuses on ferrous and non-ferrous metal recoverings. With a unique closed loop approach to the metals life cycle throughout our Tasmanian foundries.

Ferrous and non-ferrous metal recovery.

Ecocycle history of battery recycling

2003

Battery recycling has been a core business for Ecocycle since we first started recovering mercury from a myriad of waste streams. Mercury based batteries firstly came in the form of button cells and progressed through to industrial and Defence submarine batteries.

2005

Ecocycle's mercury recycling technology was adapted to recycle all these types of mercury based batteries – recovering the mercury, metals and in some cases precious metal powders (like Silver).

2015

Battery collections would often come in with mixed batteries including button cell and it became a necessity to sort these batteries safely, efficiently and accurately. It also became important that with mixed batteries we developed safe collection and storage system from retail stores to industrial bulk clients.

2017

Over the ensuing years Ecocycle spent much time and R&D on solutions to these problems and with the help of our European partners was able to put into production the first automated battery sorting plant in Australia and possibly the world.

2018

With the advent of lithium batteries and the need to sort, store and recycle Ecocycle developed purpose built Lithium storage containers for bulk lithium battery storage whilst mitigating the risks of a thermal event using the latest available technologies.

2015-20

With sister company Recycal and their experience in shredding, milling and metal separation and sorting we also developed technology to recycle Alkaline, NiCAD, NiMH and Lithium batteries in batches to ensure uncontaminated recycling results.

Smart collection unit

We have learnt major retail chains around the world are the most successful collection points for household batteries. Our cabinets that we have implemented have been in service for over 14 years throughout Europe with huge success. Purpose built for the safe and convenient collection of batteries that offers retailers a fully managed and monitored collection service for their customers.

Our unique Battery collection units are the only one of their kind here in Australia as units are completely self-managed, with Heat detection, fill rate sensors and GPS tracking. All facets of the unit are monitored from a centralised platform which will also send notifications via email/sms with any safety messages and of course an accurate material level inside the cabinet and when changeover is required. This information all fed back to our monitoring centre, pick-ups are automatically dispatched removing need for any of our recycling partners staff/personal to get involved or call for change-overs.

We understand and appreciate the importance of retail floor space so we have carefully taken this into consideration with our unique design but also feel the environmental benefits of this program far outweighs the small impact of your retail space.

We provide an option for each Smart Collection Unit to be fully sign-written with your own branding with minimal limitations to what you might want on the cabinets.

Smart collection unit

Unit Dimensions

450mm W x 450mm D x 1000mm H

Header Dimensions

480mm W x 610mm H

80L
DG certified
bucket.

Ridged
rubber exit
proof waste
shoot

Custom double
skin HDPE
rotomolded body

UV grade
powder coat
steel

Lockable
door and top
section

Locations and capabilities

Victoria

- EPA Licenced & ISO Certified
- 500 Tonne EPA Licenced storage capacity
- 150+ Tonne Electronically Thermal monitored Li Storage
- Automated Sorting Plant
- Processing Plant

All Other States

- EPA Licenced & ISO Certified
- Manual pre-sorting stations
- Fire Safe Storage
- Company owned & operated DG Licenced transport to Victoria for final processing

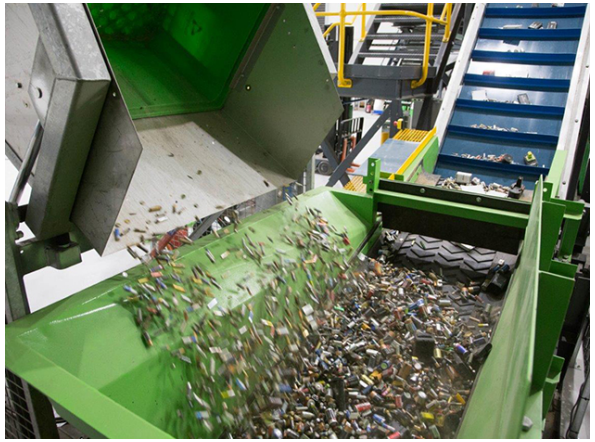
Logistics

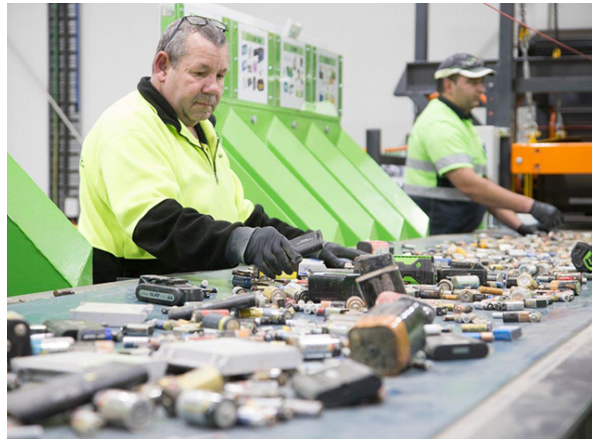
- All DG licenced drivers
- Purpose built battery collection from vans to trucks.
- GPS tracked
- Vehicles are centrally managed by logistics department
- FirePro Aerosol systems

We have a fleet custom purpose built Battery Collection Vans for Metro collections & other small 3 and 5 tonne trucks for region at collections in each state. All Company owned and operated by DG licenced drivers, bright green and well branded as Ecobatt, these vehicles are, GPS tracked and traced, with built-in smoke detectors, FirePro Aerosol systems, and hand held Lithium specialised Fire Extinguishers.

Sorting plant

The Ecobatt sorting plant is a accumulation of 5 plus years of R&D and experience in safe, efficient and accurate sorting of batteries. Using multiple technologies to achieve our objective and produce a sorting plant that is scalable for the future.





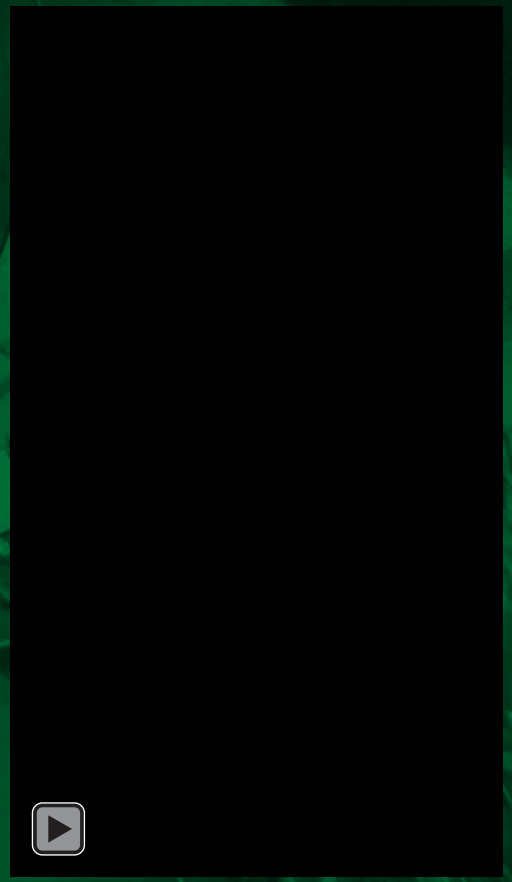
- All battery chemistries
- Mechanical sorting
- Size and shape sorting
- Magnet sorting
- Initial capacity of 1000kg per hour
- Optical vision technology – 99.8% accuracy
- Future proof – capacity upgrade, AI upgrades
- Waste removal
- Mobile phone sorting

Processing plant

The batteries once sorted and separated into their various grades are then processed to recover the metals. With lithium based power storage and EV batteries from Tesla it is important to process them in batches. They are Milled, separating out the steel casings and plastics leaving a non-ferrous rich black sand.

The separated steel is then further bailed and used in the manufacture of steel based products. Plastics depending on quality/type can be granulated further and sent to local plastic recyclers. The black sand, depending on battery types and composition will be rich in Copper, Cobalt and other Non Ferrous metals and is sent for further downstream separation.

Processing plant



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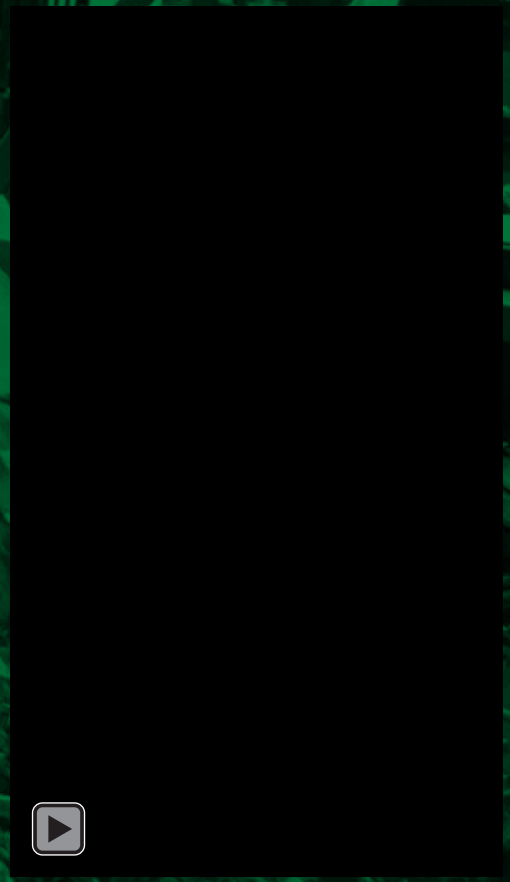

Out

Lifecycle of a battery