

# RECHARGING BATTERY STEWARDSHIP

Removing 353 million batteries from the nation's waste stream for recycling makes good sense, and ABRI is determined to lead the charge. By Helen Lewis.

As federal, state and territory governments finally move ahead with a national co-regulatory scheme for computers and televisions, it is timely to start planning product stewardship schemes for other high priority waste products.

The Australian Battery Recycling Initiative (ABRI) was established in 2008 to promote responsible environmental management of batteries at end-of-life. Batteries contain valuable metals and they're a potential hazard in landfills and alternative waste facilities, so they should be recovered.

In 2010, ABRI commissioned consultancy Warnken ISE to develop a mass balance for batteries in Australia. The aim was to develop a better understanding of battery stocks and flows, in particular how many batteries of different chemistries we consume each year and how many of these we recycle or send to landfill.

The study looked at all categories of batteries – hand-held, automotive and industrial – and estimated about 353 million are consumed each year. Hand-held batteries (weighing less than 1kg) make up the largest proportion by number, accounting for about 345 million or 98 per cent of the total. This category includes all of the common household batteries, such as AAA, AA and D alkaline and carbon zinc batteries, as well as more specialised batteries for laptops, mobile phones, power tools, MP3 players and hearing aids.

Only four per cent of these are recycled at present. The majority are disposed to landfill at the end of their life (about 183 million), or informally 'stockpiled' in defunct electrical and electronic products (69 million).

The situation is quite different for the larger automotive batteries. Australians consume some six million each year and recycle approximately 87 per cent. While there is a well-established recovery infrastructure, the report highlighted some important gaps, including collection of batteries from remote and regional areas.

## Why recycle batteries?

There are a number of arguments for recycling that collectively support the need for a national product stewardship scheme.

Many of the materials used to make batteries, such as lead, cadmium, mercury, lithium, manganese, nickel and zinc are non-renewable. They can, however, be recycled an indefinite number of times and have a commercial value.

Some of these materials, particularly lead, cadmium and mercury, are potentially hazardous to human health and the environment. Disposal in landfill runs the risk of heavy metals leaching into surrounding groundwater and surface water. Like



Battery World offers in-store recycling bins across the country.

all other products containing hazardous materials, including computers, mobile phones, paints and fluorescent lights, it is more resource efficient to recycle them.

Finally, alternative waste facilities are becoming more common, but batteries present a problem for the organic materials they depend on. Lead acid batteries are often damaged in waste collection vehicles or the early stages of processing, contaminating the organics before they can be removed, while the smaller household batteries are difficult to separate from mixed waste. All batteries should therefore be removed from the mixed waste stream to support increased diversion of organics from landfill to high value applications such as compost.

## Next steps for stewardship

Data from the ABRI report will inform the development of an active program this year to promote battery stewardship.

One of the priorities is to expand the infrastructure for collection and reprocessing of hand-held batteries, building on existing programs that operate on a relatively small scale.

The most active program is in Perth, where local and state governments have established a network of more than 150 drop-off points for batteries. Battery World stores offer a recycling service for their customers nationally and Sustainability Victoria



is running a pilot program in Melbourne. Single use alkaline batteries are recycled at a pilot facility in Port Kembla, NSW, and rechargeable batteries are exported under licence for reprocessing overseas.

In the absence of industry and community-wide support for voluntary battery recycling programs, some form of government regulation may be required. ABRI will be engaging with federal, state and territory governments this year on the most appropriate form of regulation for hand-held batteries, with a national policy required to support the establishment of a viable long-term recycling solution.

Over the next 12 months, ABRI will develop product stewardship plans that identify actions required by governments, industry and consumers to ensure batteries of all types are removed from the waste stream for recycling.

For automotive batteries, for example, ABRI's objectives include recovering the approximately 135,000 batteries disposed to landfill each year; working with government agencies to stop illegal exports; and taking steps to recover batteries informally stockpiled around the country.

### The business case

ABRI is seeking to expand its membership to include companies involved in the manufacture, use and recovery of batteries. Product stewardship is based on the principle that organisations at every stage of the supply chain, as well as governments and consumers, share responsibility for environmental management, including recovery at end of life.

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ABRI's membership already includes battery manufacturers, consumer electronics suppliers, recyclers, government agencies and environmental organisations, but there are some important gaps. It is keen to involve other manufacturers and retailers as it moves into the next stage of its program. There are many benefits of working through ABRI to develop product stewardship programs. One is that taking an active role in the development

of national policies and programs ensures they support your business goals.

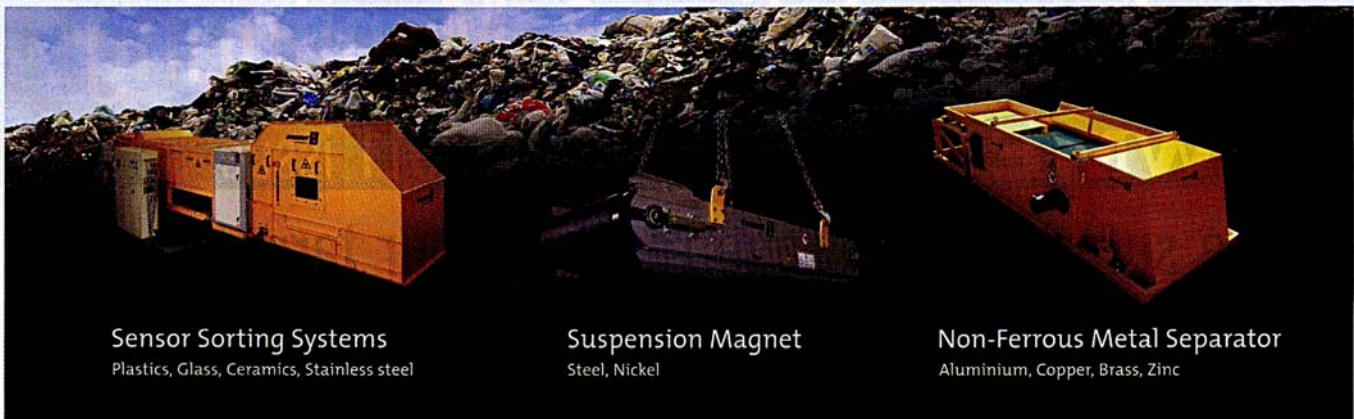
State governments in NSW, Queensland and Western Australia have identified batteries as products of concern in the waste stream. The NSW Government's draft implementation plan for the Waste Avoidance and Recovery Strategy proposes national schemes for priority wastes, including lead acid and hand-held batteries, but in the absence of such schemes proposes producer responsibility schemes by 2013.

The second key reason for companies to join ABRI is to support their corporate sustainability and social responsibility goals. Consumers and other stakeholders expect companies to take responsibility not just for their operations but their products at the end-of-life. This includes batteries, as shown by Planet Ark's 'Recycling Near You' website in receiving more than 120,000 queries on how to recycle batteries in 2009-10, a 20 per cent increase on the previous year.

Helen Lewis is chief executive of ABRI.

Download a summary of the research findings at [www.batteryrecycling.org.au](http://www.batteryrecycling.org.au). **WME**

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