



**rmt**  
renewed metal technologies

## Regional investment delivers national impact

**A lead recovery plant in the New South Wales town of Wagga Wagga is set to make a major contribution to Australia's recycling capacity and the environment.**

The \$55 million plant, due to go into full production in March 2010, incorporates \$15 million worth of equipment from the Italian company Engitec Technologies, the acknowledged world leader in battery recycling technology. The plant will produce 25,000 tonnes of lead a year by processing 42,000 tonnes of used lead acid batteries – the batteries used in cars and other applications.

This processing facility is the first major project of Renewed Metal Technologies (RMT), a private Australian company dedicated to turning potentially hazardous waste into new resources. The company's total initial investment is \$61 million, and a staff of 55.

### Why Wagga Wagga?

RMT's Managing Director and CEO, Wayne Richardson, said the aim was to make Wagga Wagga the centre of excellence when it comes to resource recovery.

"This inland city might seem an unusual choice, but it has a number of factors in its favour. One of the most important is that it is an ideal transport hub. It is midway between Sydney and Melbourne, with excellent links to other major centres."

"Because of this central location, our aggregation partner Orbitas Resource Recovery has also based itself in Wagga Wagga – to more easily supply us the used batteries they have collected from all over the country."

Orbitas has a countrywide network of agents and service providers to collect recyclables and provide them to processing companies like RMT. It also collects used non-lead acid batteries, used oil, metal scrap, plastic and biomass.

Another plus for Wagga Wagga is the thriving Bomen Industrial Park 12 kilometres outside the city centre, where the plant has been built on a 10-hectare site.

The city has a population of approximately 63,000 and serves a region of 200,000 people, so is able to provide a strong workforce. It has a campus of Charles Sturt University, and a lively cultural life. "The city can provide a good lifestyle for our employees," said Richardson.

### Resource security

Richardson's career includes senior management positions with Pacific Dunlop, followed by 10 years running his own company, engaging in joint ventures with motoring organisations in the United States and other countries.

He is president of the Australian Battery Recycling Initiative (ABRI), a recently formed industry association dedicated to the ideal of 'no batteries in land fill' and recovering the valuable resources from all battery types and technologies. According to Richardson: "Every battery is a potential source of valuable materials – and a potential pollutant. Some of the more exotic battery technologies are those used in hybrid or "plug in" electric cars, and at present the car manufacturers do not have a sustainable recycling solution available to them."

He said Australian manufacturers could potentially face shortages as the global growth engines of China and India feed their voracious appetite for raw materials by buying up the entire output of our primary resources. "For example, research indicates that the world market for lead will double by 2050, and we are already exporting most of what we mine. Resource recovery is a way of creating certainty of raw material supply for Australian manufacturers."

In addition, primary lead production uses four times more energy than lead produced by recycling and in the carbon-constrained world of the future this will become increasingly important.

Australia is a signatory to the Basel Convention, which seeks to regulate the transport of hazardous waste and its movement across borders. "The convention provides the framework but it has not been able to eliminate illegal exports. Anecdotal evidence suggests that Australia illegally exports up to 20,000 tonnes a year of used lead acid batteries to countries like Korea, China and other emerging economies, which can have limited or very poor pollution and OH&S controls."

"And back home, tonnes of used batteries are dumped – into rubbish tips and the marine environment. So while lead is a great news story, there is a whole cocktail of chemicals and heavy metals within a used car battery that present environmental problems when disposed of thoughtlessly."

Richardson added: "Now, with our plant in operation, I believe the government is in a position to make it clear that no more export permits will be granted, because Australia now has the capacity to process all its old batteries. By doing that, they'd be sending a very clear message to the illegal exporters."

## Leading the way for the environment and sustainability

RMT's plant will also produce 3,000 tonnes per annum of broken plastic which is reused in the manufacture of new batteries and 7,000 tonnes per annum of sodium sulphate (used in a range of products, including washing powders, glass and paper) – and will do all this in a way which sets new benchmarks of environmental responsibility and sustainability.

"One of the most important technical aspects of the plant is the process by which the sulphur is removed as a salt cake – a useful material instead of being emitted into the air as sulphur dioxide," said Richardson.

In addition to the battery plant, the group has a significant stake in Southern Oil Refineries, which is also based at Bomen Industrial Park. This plant, rather than working with crude oil like its traditional counterparts, produces a range of products from used lubrication oil.

This 45-employee company refines 32 million litres per annum of used oil and transforms it into 25 million litres of oil products and 5 million litres of furnace fuel. "Before this project, most of the used oil would simply have been burnt, which is of course an extremely unfriendly environmental outcome," said Richardson.

"Oil is another resource on the endangered species list, and this project is yet another demonstration of the enormous benefits of recycling. At RMT, we see resource recovery as one of the most important routes to a sustainable business and planet."



Margaret Begg, Compliance Manager, RMT