

ILUKA RESOURCES FINE-TUNES NEW PLANT FOR MORE THAN \$200,000 IN ENERGY SAVINGS



Iluka Resources Ltd is the world's largest producer of zircon and second largest of titanium dioxide. In Hamilton, Victoria the company is involved in the production and processing of mineral sands.

Iluka opened a new resource-efficient processing plant in Hamilton in 2007. Since becoming involved in the Environment and Resource Efficiency Plan (EREP) program, the company has identified opportunities to save more than \$200,000 in annual energy costs. No capital cost is required to reap these savings.

'The major annual saving of \$149,000 has come from power factor correction, where the company's electricians fine-tuned the plant's energy consumption and expects to cut usage by 7884 GJ per year,' says Genai Roberts, Iluka's Environmental Specialist, who is coordinating the EREP team.

'Optimising the operation of the filterbelt – which removes water from minerals before the drying process – is estimated to save around \$64,000 annually.'

Iluka has also changed laboratory processes which formerly discarded samples of minerals. By directing these minerals back into the processing line, the company expects to save 68 tonnes of solid waste annually and gain additional sales of around \$15,000.

Iluka is already highly water efficient, as the company invested \$1 million in a sewerage treatment plant in 2003 through a joint venture with the State Government and Wannon Water. This means only reclaimed water is used in the plant's mineral processing.



Iluka Resources' Hamilton Mineral Separation Plant



Investment and savings (from actions with a payback period of three years or less)

Estimated annual savings

Financial:	\$235,471
Energy:	19.3 TJ
Greenhouse gases (CO ₂ -e):	4090 t
Solid waste:	68 t

Financial outlay and payback

Capital outlay: Zero, so payback immediate



Iluka fine-tunes new plant for more than \$200,000 in energy savings

EPA Victoria's Environment Resource and Efficiency Plans (EREP) program is helping businesses achieve large resource savings and improve their bottom line through reduced energy, water and waste costs. EREP participants often find improvements can be made without major capital expenditure, so financial returns are fast.

Introduced in 2008, the EREP program is already set to achieve annual savings of around \$70 million each year for the 250 Victorian sites participating in the program.

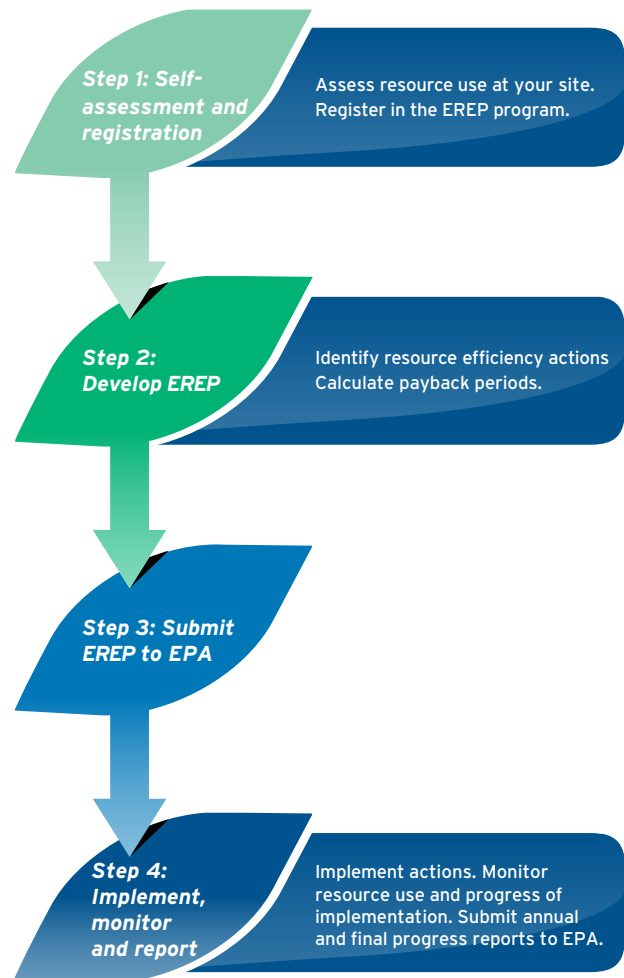
Large energy and water users are required to show they have assessed their operations, identified opportunities to improve resource efficiency and prioritised these actions. Importantly, actions that pay for themselves within three years must be implemented. To date, EPA has found that the average payback period of mandatory actions is about 10 months.

EREP participants come from a range of sectors including metals and chemicals manufacturing, food and beverage manufacturing, shopping centres, metropolitan hospitals, universities and sporting facilities.

What's in an EREP?

- Resource profile (baseline): site level energy, water and waste.
- Major energy-using, water-using and waste-generating activities.
- Actions to reduce energy and water usage and reduce waste.
- Costs, savings and efficiency gains expected from each action.
- Payback periods for each action.
- Time frames and responsibilities for implementing actions.
- Monitoring, reporting and review process.

EREP program steps



Annual EREP program savings (from actions with a payback period of three years or less)

Energy:	more than 4500 TJ (enough to power around 90,000 households*)
Greenhouse gases (CO ₂ -e):	at least 900,000 t
Water:	more than 5000 ML (around 90,000 Melburnians' annual water usage**)
Solid waste:	more than 100,000 t
Liquid waste:	more than 900 ML
Financial savings	more than \$70 million
Average payback period of actions:	around 10 months

* Based on 2005 average usage (source: www.environment.gov.au) ** Based on Target 155 (source: www.ourwater.vic.gov.au)

To find out more about the EREP program visit www.epa.vic.gov.au/erep, email erep@epa.vic.gov.au or call EPA on 03 9695 2722.

