

Case study – Geofabrics Australasia



Albury geotextile specialist saves energy and money with focus on sustainability

The superstar footballers of the 2010 FIFA World Cup in South Africa – and billions of fans watching around the globe – would not have known the games were played on surfaces supported by drainage material manufactured in regional NSW.

Geofabrics Australasia supplied more than 20,000 lineal metres of megaflo drainage system for stadiums in Capetown, Johannesburg and Durban to help drain water and create the best possible playing conditions for the world's most-watched sporting event.

From its high-tech plant in Albury, Geofabrics manufactures and distributes a range of geosynthetics throughout Australia, New Zealand, Asia, the South Pacific, Europe and Southern Africa. These products are used for drainage and filtration, separation and reinforcement, road maintenance and rehabilitation, mine remediation, waste containment and erosion control.

Geofabrics, which now employs over 150 people throughout Australia and New Zealand, has been working on sustainability projects since 1999.

Howard Yen, Operations Manager at the Albury site, says the main motivation for Geofabrics to get involved in the Sustainability Advantage Program was to improve resource

In brief

Geofabrics manufactures and distributes a range of geosynthetics that drain or filter water, reinforce building works, hold waste, maintain roads, and prevent erosion.

In seeking to be more sustainable, Geofabrics has made continuous improvements through a lean manufacturing program and is saving time, effort and money in resource efficiency and waste management. For example, the company:

- cut electricity use by 10 per cent between 2009 and 2010
- saved more than \$200,000 by improving transport logistics
- installed a new air compressor which reduced electricity consumption from 1.28 kilowatt hours per kilogram to 1.17 kilowatt hours per kilogram – a saving of 1600 megawatt hours per year and \$240,000
- installed new power factor correction equipment which is expected to save another \$30,000 in energy costs
- made design and process changes to conserve 258 tonnes of raw material in 18 months – a saving of \$310,000
- worked with local council to reduce waste to landfill by 31 per cent.



- ▶ efficiency, incorporate sustainability more closely in the company's operations, and improve staff awareness of sustainability issues.

After brainstorming a variety of ideas on how to improve sustainability, Geofabrics chose a range of activities dealing with electricity, gas, energy-efficient compressors and motors, lighting, insulation, ducting, natural light, purchasing and process design.

Geofabrics implemented continuous improvements through lean manufacturing to make its use of resources more efficient. The company incorporated sustainability in day-to-day work by engaging staff, measuring ecological footprints, and improving communication with all employees.

To demonstrate good corporate citizenship Geofabrics developed a greenhouse gas inventory and a carbon audit scope to measure environmental impacts. The company also created a list of actions to address climate change risks and opportunities.

As a result, Geofabrics has saved time, effort and money by being more efficient in its use of resources, and better at managing waste. In attaining Silver Recognition as part of the Sustainability Advantage Program the company:

- cut electricity use by 10 per cent between 2009 and 2010
- saved more than \$200,000 by improving transport logistics
- installed a new air compressor which reduced electricity consumption by 1600 megawatt hours per year or \$240,000

- made design and process changes to conserve 258 tonnes of raw material and save \$310,000
- worked with Albury City Council to reduce waste to landfill by 31 per cent.

Since 2006, Geofabrics has reduced its energy intensity – the amount of kilowatts per hour used per unit of material produced – by 50 per cent. Being able to reduce energy consumption while increasing production has helped Geofabrics to lessen the impact of electricity price rises.

'We are making more but consuming less power,' says Yen. 'Since we started this program, the cost of energy has gone up 20 per cent, but we have been able to reduce our consumption by 10 per cent. And that's important in manufacturing because we are always looking to do what we can to control costs.'

'We have kept our focus on triple bottom line results in order to get the real benefits of our sustainability projects. This approach, and making sure we get everyone involved, is the basis of our whole program.'

Your next step

To find out how your business can join the Sustainability Advantage Program, contact the team:

Email sustainbus@environment.nsw.gov.au

Call 02 8837 6000

Visit environment.nsw.gov.au/sustainbus/sustainabilityadvantage.htm