

THE UNIVERSITY OF MELBOURNE
REPORT TO UNIVERSITY COUNCIL

ENVIRONMENTAL SUSTAINABILITY CHALLENGES AND INITIATIVES

PURPOSE

The purpose of this report is to advise the University Council of some of the University's significant environmental impacts, current environmental sustainability initiatives and initiatives that are planned to be implemented to reduce the environmental impact of the University's operations.

BACKGROUND

The University has been a leader amongst Australian universities in environmental sustainability, commencing with the decision to seek certification to ISO14001 Environmental Management Standard in 1997. The University is also a signatory to the Talloires Declaration, committing to minimising the environmental impact of the University's operations and optimising teaching and learning and knowledge transfer in environmental sustainability.

ISSUES / INTENDED OUTCOMES

The University's environmental sustainability programs and management systems are overseen by the Environment, Health & Safety Unit within Property & Campus Services. Some central programs are coordinated and managed through the various sections within Property & Campus Services. In addition, local programs are initiated, coordinated and managed through Faculties and Departments.

The University's environmental impacts are grouped in three broad categories: waste generation, water consumption, and resource consumption and emissions.

Some of the University's significant environmental sustainability programs include:

Waste and Recycling

- Office waste recycling program (95% by weight of all office waste from Parkville is recycled by Visy).
- Computer recycling program (a significant proportion of the University's waste computers are recycled and reprocessed).
- Polystyrene recycling (approximately 200m³ of uncompressed polystyrene per year is recycled).
- Battery recycling (a battery recycling program is offered through the mail room).
- Toner cartridge recycling (many of the Departments of the University choose to recycle toner cartridges and purchase remanufactured cartridges through CartCollect).
- Promotion of recycled paper purchasing (negotiation of preferred supplier prices).
- Hazardous chemical waste (minimised through the application of a high standard laboratory practice).
- Solvent waste recycling (solvent waste generated from laboratories is reprocessed and recycled).
- Trade waste (trade waste discharged to sewer is monitored 6 monthly and results continue to indicate the University performs well above industry standard practice).
- Chemicals stored at the University are banded to prevent spillage to waterways and sewers.

Water

The University's water consumption (Parkville campus) has reduced by approximately 30% since 2004. Water savings initiatives recently undertaken include:

- Installation of drip feed hoses for significant trees on the grounds.
- Trial of waterless urinals.
- Installation of recycled water infrastructure at Werribee campus (currently awaiting commission).
- Initiation of installation of a bore at Dookie campus to reduce the need for water from Broken River.
- Investigation of bore and underground water storage facilities at Parkville Campus.
- Investigation of bore at Creswick Campus.
- Initiation of installation of bio-retention units at VCA campus in conjunction with Melbourne Water to treat storm water runoff from VCA and St Kilda Road.
- Review of plant operation in various buildings across Parkville campus to reduce excess water consumption (e.g. air conditioning plant, Law Building).

Resource and Emissions Minimisation

- A number of the university's vehicles have their emissions off-set through a subscription to Greenfleet. A university-wide subscription to Greenfleet is currently evaluated as a component of a broader review of the university's vehicle fleet. This initiative could reduce the university's greenhouse emissions by approximately 1,255 tonnes per year.
- The electricity supplied to the Alan Gilbert Building from the electricity grid is supplemented by Photovoltaic cells which can provide up to 40kW of electricity.
- An energy audit has been undertaken to review the energy efficiency of seventy of the University's buildings at the Parkville campus. The energy audit has identified a significant number of energy savings initiatives. Funding of \$ 1 million in 2007 and \$ 2.5 million in 2008 is currently being sought to implement the recommendations of the energy audit. This capital expenditure is calculated to result in a reduction in carbon dioxide emissions of approximately 30,000 tonnes (approximately 23% of total emissions) per annum. Therefore, energy savings initiatives can permanently reduce carbon dioxide emissions with one-off capital expenditure of approximately \$115 per tonne.
- The University has purchased Green Power since 2000, and currently purchases 5% of total electricity as Green Power. This reduces the University's carbon dioxide emissions by approximately 5,575 tonnes per annum. The estimated recurrent cost of purchasing 100% Green Power at the current market price is approximately \$3.4 annually. Therefore, further Green Power purchases can reduce carbon dioxide emissions with recurrent expenditure of approximately \$30 per tonne (at current market price).
- The Environment, Health & Safety Unit is assessing the merits of subscription to the Federal Government's Greenhouse Gas Challenge, which involves establishing targets for greenhouse gas emission reduction and monitoring and publishing progress.

Other Sustainability Initiatives

- Commissioning of the new Economics & Commerce building, which aims to achieve at least a 5 Green Star rating in accordance with the Green Building Council's rating for education buildings.
- The development and drafting of a policy establishing minimum Green Star ratings for all new and significantly refurbished buildings.

- A draft Environmental Sustainability Strategic Plan has been published for input from interested parties, and is planned to be tabled at Planning & Budget Committee. There are four key objectives:
 1. Reduce the occurrence or re-occurrence of environmental incidents and reduce the University's environmental impact.
 2. Continually improve compliance with environmental legislation and conformance to ISO 14001:2004.
 3. Improve environmental sustainability leadership and culture throughout the University
 4. Provide high quality consistent and practical environmental sustainability information and advice to the University community

RECOMMENDATION

It is recommended the University Council note the environmental sustainability initiatives that are currently undertaken and are planned for future implementation.

Mr Stefan Delaney
General Manager, Environment Health & Safety