

Sustainability Strategy 2016-17



CRICOS Provider No. 00103D



Purpose

The purpose of the Sustainability Strategy is to set clear principles, goals and actions to improve sustainable education, research and behaviour at all campuses. Long term, the Strategy will assist to incorporate sustainability into all planning, education and policy.

Scope

The University has 7 campuses located in the townships of Gippsland, Horsham and three campuses in Ballarat. The Primary Industries Training Centre and Equine Centre are also located on the outskirts of Ballarat.

The Sustainability Strategy covers all activities at all campuses (including on-campus accommodation) but excludes tenants of Technology Park.



Achievements to date

The University made a commitment to sustainability by appointing a Sustainability Officer in 2005. Since then, the following has been achieved:

- became one of the first institutes to offer the Diploma of Sustainability in 2005
- sustainability policy endorsed by Council in 2007
- established a Sustainability Champions staff network with over 100 volunteers
- added environmental sustainability clause to the academic and general staff enterprise agreement 2010-2012. The clause specifically covers student and staff education, public reporting and ensuring sustainability is included in all strategic documents
- introduced co-mingled recycling for all campuses in 2006 and currently 38% of all waste is recycled
- became a founding member of Australian Campuses Towards Sustainability (ACTS)
- National Centre for Sustainability (NCS) trained one TAFE teacher in every department in a twelve month program called 'Sustainable Futures'. Participants had to undertake industry placement, develop action plans for embedding sustainability into their curriculum, provide professional development to staff and participate in a community of practice
- as part of the TravelSmart program, UB developed a green travel plan, installed secure bike parking at Mt Helen campus, introduced an online carpooling system for all staff and students, improved bike paths to Mt Helen campus and assisted in improving the bus service to Mt Helen and Technology Park
- worked with community groups such as Ballarat Renewable Energy and Zero Emissions (BREAZE) to provide information and advice to community on making your home more sustainable
- Sustainability Officer has worked with a number of departments to educate students on sustainable practices in their field. Training restaurants take all food scraps to worm farms, wood waste from Building & Construction is taken home by staff and students and scrap wood is being used to make nesting boxes for fire devastated areas in north east Victoria
- reduced energy consumption by 17% per m² of floor space since 2005
- Reduced GHG emissions by over 6,000 tonnes
- reduced water consumption by 50% per m² of floor space since 2005
- Staff and students recycle 38% of their waste
- Paper consumption has fallen by over 60% since 2009



The Trade Training Centre at SMB campus was officially opened in 2014. The building features a number of sustainability designs including a geo-exchange heating and cooling system.

Over 400,000 litres of water are stored underneath the building and either warm or cold water is pumped through the concrete floor for heating and cooling. Other sustainability features include natural ventilation through automatic louvres, low energy lighting with occupancy sensors, water harvesting for toilets & solar hot water.

Public Reporting

The University has been publically reporting on sustainability activities since 2006. We report on the following areas:

- energy
- waste and recycling
- vehicle fuel
- paper consumption
- water consumption
- air travel

The University provides a comprehensive carbon inventory for scope 1, 2 & 3 activities in the Annual Report. Our sustainability reports can be found on the sustainability website: www.federation.edu.au/sustainability

Carbon Inventory with targets (Baseline 2013)

Emissions source	Consumption units	Consumption 2013	Actual Emissions (tonnes) 2013	Target emissions (tonnes) 2017	Change from 2013 %
Direct emissions (Scope 1)					
Natural Gas	GJ	76,278	3,508	2,806	-20%
Petrol for vehicles	kL	137	314	251	-20%
Diesel for vehicles	kL	89	240	192	-20%
Total Scope 1			4,062	3,249	
Indirect emissions (Scope 2)					
Electricity	kWh	12,646,389	15,109	12,087	-20%
Optional Emissions (Scope 3)					
Electricity (trans & dist losses)	kWh	12,646,389	1,904	1,523	-20%
Flights	km	9,597,947	1,398	1,118	-20%
Waste - landfill	tonnes	489	538	430	-20%
natural gas extraction	GJ	76,278	267	214	-20%
Train travel	\$	44,200	28	42	+50%
Water consumption	kL	79,848	187	149	-10%
Paper consumption	reams	20,328	67	54	-20%
Petrol & diesel fuel extraction	kL	266	44	35	-20%
Total scope 3			4,433	3,565	
Scope 1 + 2 + 3			23,604	18,901	
Less AGL Green power	kWh	310,580	-414	-331	
Net Emissions			23,190	18,570	-20%

Above is the 2013 carbon inventory of all associated University activity including on-campus accommodation for Mt Helen and Gippsland campuses. Our goal is to reduce greenhouse gas emissions by 20% over the next 4 years through reductions in energy, vehicle travel, landfill waste, water, and air travel. The 2013 baseline data includes Gippsland campus activity.

Sustainability Principles

1. Increase reporting on social indicators in the annual report
2. Provide regular consultation with staff, students and the local community on sustainability@FedUni achievements
3. Continue to grow courses offering sustainability as a core or elective
4. Increase the awareness of sustainability in graduates
5. Reduce University vehicle fleet greenhouse gas emissions, water and energy consumption
6. Increase staff patronage of V/Line train travel
7. Reduce waste to landfill and increase recycled waste
8. Construct new buildings and retrofit existing buildings to reduce energy, waste and water consumption

2016-17 Goals (2013 baseline)

1. Reduce energy consumption campus wide by 20% (from 114,044 gj to 91,235 gj)
2. Reduce GHG emissions campus wide by 20% from (from 23,190 to 18,570 tonnes)
3. Reduce waste to landfill by 20% (from 489 to 391 tonnes)
4. Increase recycling by 20% (from 218 to 261 tonnes)
5. Reduce water consumption by 10% (from 79,848 kl to 71,863 kl)
6. Increase patronage on V/Line train travel by 100% (from \$44,200 to \$88,400)
7. Reduce University vehicle fleet GHG emissions by 20% (from 600 to 480 tonnes GHG)

Action Plan

Goal	Mt Helen	Gippsland	SMB	Camp St	Horsham
Reduce energy consumption by 20% per m ² GFA	<ul style="list-style-type: none"> Variable speed drives on pumps and air handling units. LED Lighting replacements in indoor and outdoor areas Large scale solar installations New gas boilers on several buildings New chiller for T building 	<ul style="list-style-type: none"> New gas boilers and 1 replacement chiller systems LED lighting replacements for indoor and outdoor areas Variable speed drives on 4 pumps and 8 air handling units 	<ul style="list-style-type: none"> Variable speed drives on pumps and air handling units LED lighting replacements in indoor and outdoor areas 	<ul style="list-style-type: none"> Variable speed drives on pumps and air handling units LED lighting replacements in indoor and outdoor areas 	<ul style="list-style-type: none"> Install 70 kw solar panel system LED lighting replacements New Chiller
Reduce GHG emissions by 20%	Reduction in energy consumption will have an associated effect on GHG emissions	Reduction in energy consumption will have an associated effect on GHG emissions	Reduction in energy consumption will have an associated effect on GHG emissions	Reduction in energy consumption will have an associated effect on GHG emissions	Reduction in energy consumption will have an associated effect on GHG emissions
Reduce waste to landfill by 20%	<ul style="list-style-type: none"> Introduce concrete/brick, furniture, steel and wood recycling in facilities Food waste in U building 		<ul style="list-style-type: none"> Introduce brick recycling in bricklaying course Food waste recycling at prospects and cafe 	Install 1 metre recycling bins in new north carpark	
Increase recycling by 20%	<ul style="list-style-type: none"> Introduce concrete/brick, furniture, steel and wood recycling in facilities Food waste recycling 		<ul style="list-style-type: none"> Introduce brick recycling in bricklaying course Food waste recycling 	Install 1 metre recycling bins in new north carpark	
Reduce water consumption by 10% per m ² GFA	<ul style="list-style-type: none"> Continue to replace singles flush toilets Smart water meters 		<ul style="list-style-type: none"> Continue to replace singles flush toilets Smart water meters 	<ul style="list-style-type: none"> Continue to replace singles flush toilets Smart water meters 	<ul style="list-style-type: none"> Smart water meters

Increase patronage on V/Line train travel by 100%	<ul style="list-style-type: none"> • Provide myki cards to all campuses 				
Reduce University vehicle fleet GHG emissions by 20%	<ul style="list-style-type: none"> • Continue to replace petrol vehicles with diesel • Encourage public transport travel • Trial hybrid vehicles 				

