

## 2013 Sustainability Report

The University set a number of goals in the 2012- 2013 Sustainability Strategy. The strategy used 2008 as a benchmark and a number of economic, social and environmental targets were set. Below is a our achievements at the conclusion of 2013. A new strategy will be developed for 2014-15.

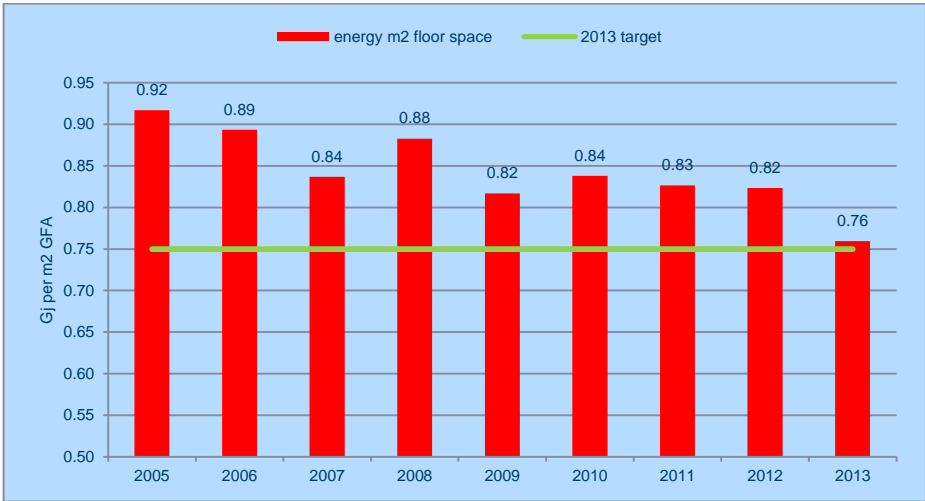
Goal	Baseline 2008	Target 2013	Achievement 2013
Increase social reporting in the annual report beginning in 2012			No. Have not increased social reporting in the annual report
Provide regular consultation with staff, students and the local community on sustainability achievements			Yes. Regular sustainability via social media, sustainability champions network and UB communicate
Become a signatory to the Tallories Declaration			Yes
'Knowledge of sustainability' as a key graduate attribute			No
Continue to grow the number of higher education courses that offer sustainability as a core unit or elective			Yes Bachelor of Sustainability, and sustainability courses in Education and Engineering
Increase research into sustainability related issues			Yes. Refer to sustainability research on website
Construct new buildings that continue to reduce energy, waste and water consumption			Yes, Science & Engineering and MTTC
Reduce energy consumption by 15% per m <sup>2</sup> GFA	.89 GJ m <sup>2</sup> GFA	.76 GJ per m <sup>2</sup> GFA	.75 GJ per m <sup>2</sup> GFA
Reduce greenhouse gas emissions (Co <sub>2</sub> -e) by 15%	18,818 tonnes	16,000 tonnes	16,425 tonnes
Maintain 2008 water consumption levels per m <sup>2</sup> of floor space	512 litres per m <sup>2</sup> of floor space	512 litres per m <sup>2</sup> of floor space	476 litres per m <sup>2</sup> of floor space
Reduce landfill waste generation by 30%	408 tonnes	286 tonnes	306 tonnes
Increase recycling to 35% of total waste	18% of total waste	35% of total waste	28% of total waste
95% of passenger fleet vehicles to be 4 cylinder	72% 4 cylinder	95% 4 cylinder	92% 4 cylinder
Increase patronage and spend on V/line train travel by 300%	\$ 15,125	\$ 45,000	\$ 42,368
Reduce vehicle fleet greenhouse gas emissions by 10%	604 tonnes	543 tonnes	492 tonnes

**How we performed in 2013**

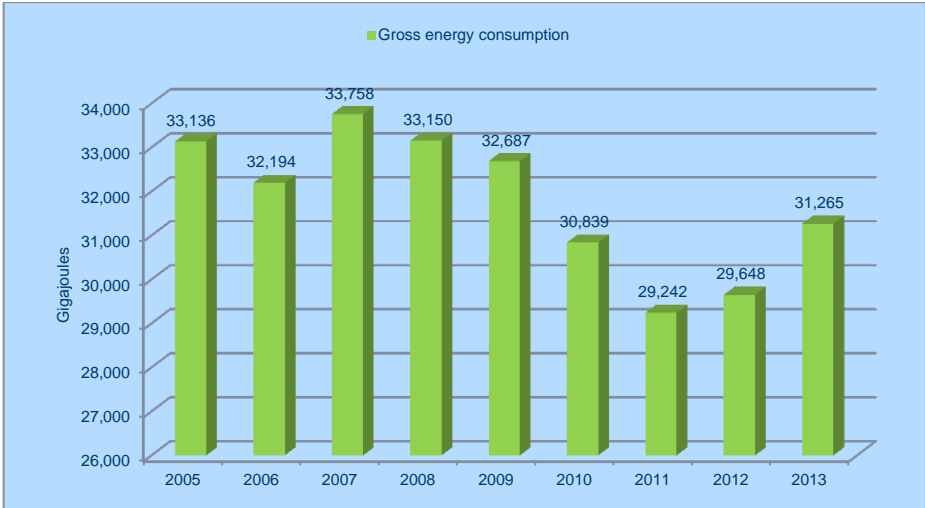
The University continues to reduce its environmental impact through the reduction of utility consumption, landfill waste, vehicle fuel and greenhouse gas emissions. The sustainability achievements for 2013 are:

- Greenhouse gas emissions (GHG) were consistent with 2012 levels. The University has achieved a 13% reduction in emissions over the past 5 years.
- Gross energy consumption was consistent with 2012 levels, a significant achievement considering building space increased by 10% in 2013.
- Gross water consumption reduced by 19% or 7 million litres
- Recycling increased by 32 tonnes, a 40% increase over 2012
- Waste to landfill decreased by 23 tonnes
- Fuel consumption decreased by 11% or 20,300 litres
- Staff travelling to Melbourne with V/line has increased by 33%
- Paper consumption has fallen by 18% or 3,700 reams

**Energy consumption 2005-2013**

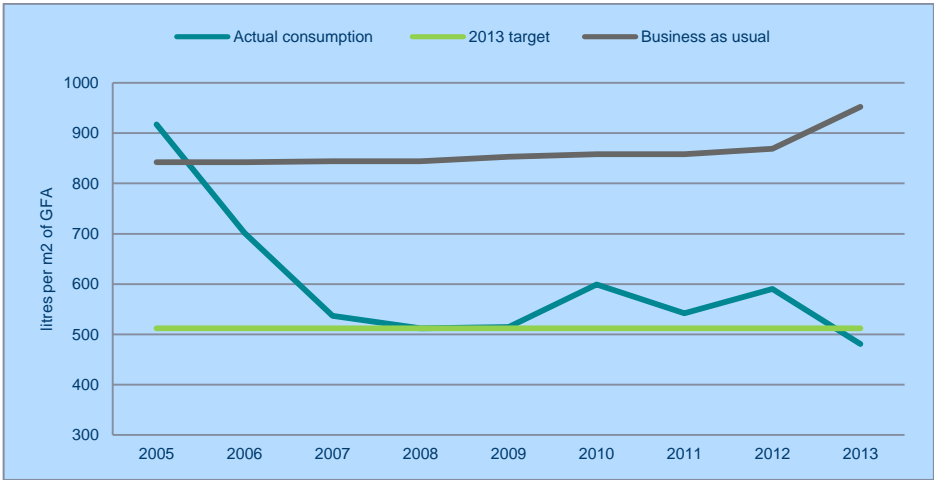


- Energy consumption per m2 floor space has reduced by 7% in the past 12 months.
- Over the past 5 years the University has reduced energy consumption by 15% per m<sup>2</sup> of floor space.
- University is hopeful of installing energy reducing infrastructure over the next 2 years as part of the Greener Government Buildings program. Solar panels, efficient lighting and improved heating and cooling systems are being considered for most campuses.



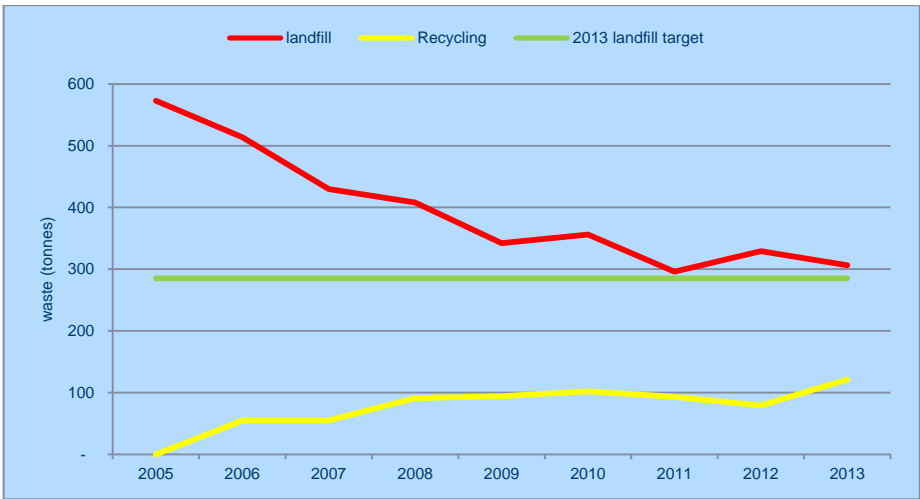
- Gross energy consumption has increased by 5% in the past 12 months. This is a small increase considering the University increased floor space by 20% with the opening of 3 new buildings.
- Gross electricity consumption increased by 5%
- Gross natural gas consumption decreased by 2%

**Potable water consumption 2005-2013**

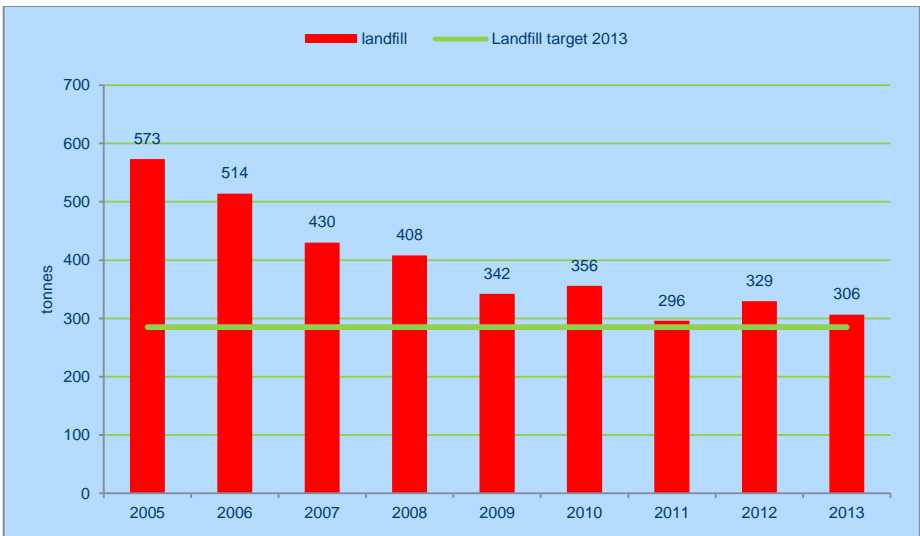


- Potable water consumption has decreased by 18% or 7 million litres against 2012.
- University set a target to reduce potable water consumption to 512 litres per m<sup>2</sup> of floor space by 2013. This target was met.
- Drinking fountains have been installed at Mt Helen, SMB, Camp St and Horsham campuses. The fountains have provided over 15,000 litres of water to students since their installation in March 2013.

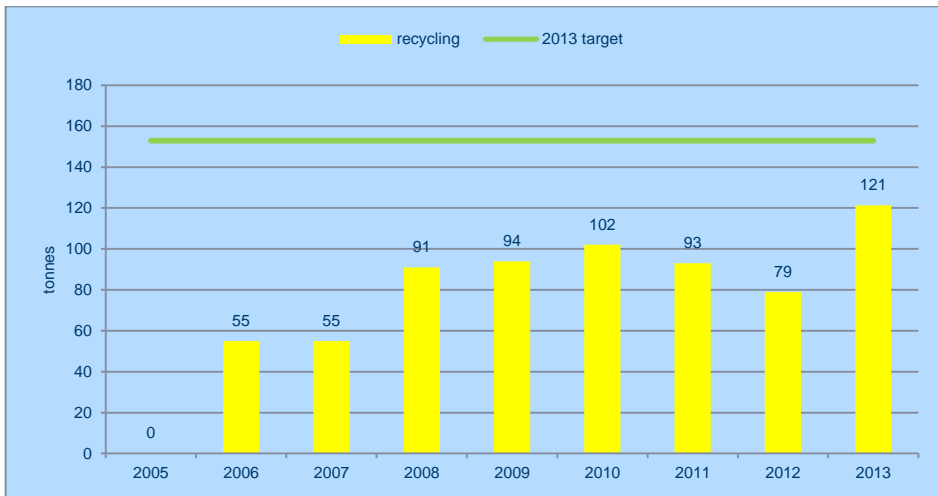
**Waste and Recycling 2005-2013**



- In 2013, landfill waste decreased by 23 tonnes.
- In 2013, recycling has increased by 32 tonnes.
- The University now recycles 28% of all waste, up from 22% recycled waste in 2012.

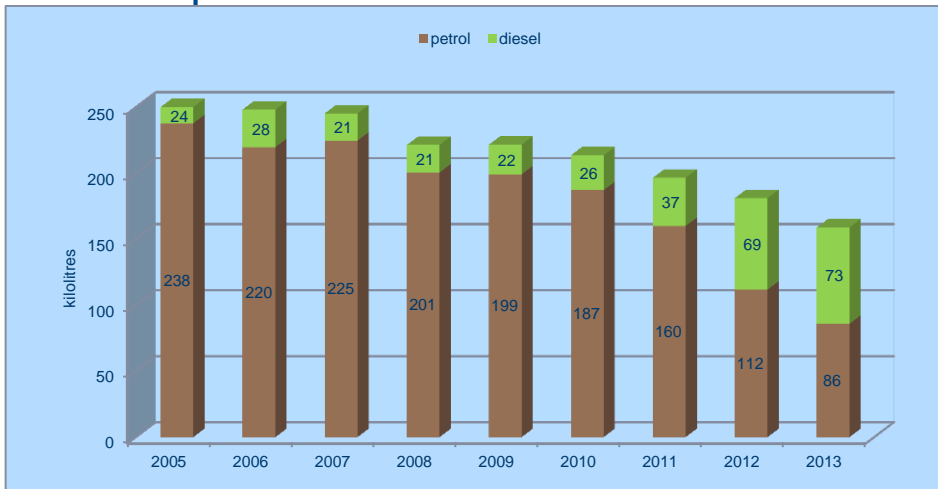


- The reduction in landfill and increase in recycling is attributed to the introduction of desktop bins at staff workstations. The smaller bin encourages behaviour change and improves recycling rates.
- In 2014 we hope to begin a recycling program for brick waste from bricklaying course



- Although recycling has increased by 36%, we did not achieve our target of 150 tonnes.
- Targets will be set in 2014-15 to encourage staff and students to recycle more of their waste.

### Fuel Consumption

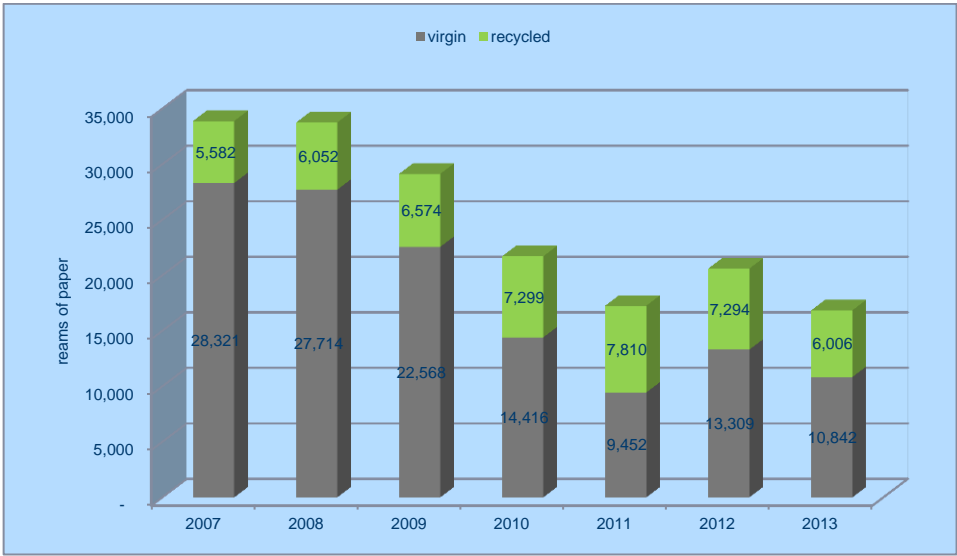


- University fuel consumption continues to decline with a 11% reduction in 2013. This equates to a 20,300 litre saving.
- The savings are attributed to the replacement of petrol vehicles with diesel. 60% of the passenger fleet is now diesel powered. 93% of the fleet are 4 cylinder.
- Many staff have switched to train travel to Melbourne with V/line expenditure increasing by 33% in 2013.

### Motor Vehicle Inventory

Category	2009	2010	2011	2012	2013
Total vehicles	96	94	89	89	89
Passenger vehicles	64	63	58	57	57
Commercial vehicles	32	31	31	32	32
Fuel consumption (l)	221,575	213,057	196,442	181,063	169,912
Diesel vehicles	7	12	18	42	40
Greenhouse gas emissions	605	571	558	518	471
Hybrid vehicles	0	0	0	1	1
6 cylinder	24	21	16	13	13
4 cylinder	72	73	73	76	76

**Paper**



- University purchased 16,848 reams in 2013. A reduction of 18% or 3,700 reams over the previous year.
- 36% of paper purchased has a recycled component.
- Over the past 5 years paper consumption has fallen by 50%.

**V/Line train Travel**



The University encourages staff to utilize V/line over motor vehicles when travelling to Melbourne.

Between 2012 and 2013 expenditure in V/line has increased by 45%.

All departments have been issued with myki cards with auto top up feature enabled so staff don't need to worry about travel reimbursements.

The Regional Rail Link will make train travel to Melbourne even better from 2014.

## 2013 Carbon Inventory

The University set a target of 16,000 tonnes and this target was almost achieved with actual emissions of 16,402 tonnes for 2013. Again this is a significant achievement considering 3 new buildings have added an additional 20% of floor space to the University. We're hopeful of setting a 5% emission reductions for 2014-15.

Emissions source	Consumption units	Consumption	Target emissions (tonnes) 2013	Actual Emissions (tonnes) 2013	Actual Emissions (tonnes) 2012	Change from 2012 %
<b>Direct emissions (Scope 1)</b>						
Natural Gas	GJ	59,552	2,900	3,057	3,116	-2%
Petrol for vehicles	kL	86	419	222	277	-20%
Diesel for vehicles	kL	73	37	197	187	5%
Petrol for hire vehicles	kL	40	50	20	31	-35%
<b>Total Scope 1</b>			3,406	3,495	3,611	
<b>Indirect emissions (Scope 2)</b>						
Electricity	kWh	8,684,737	9,800	10,161	9,800	4%
<b>Optional Emissions (Scope 3)</b>						
Electricity - transmission & distribution losses	kWh	8,684,737	1,200	1,303	1,235	5%
Flights	km	9,597,947	1,367	1,058	1,280	-17%
Waste - landfill	tonnes	306	314	337	394	-14%
Extraction of natural gas	GJ	59,552	330	232	243	-4%
Train travel	\$	12	45	0	17	-100%
Water consumption	kL	58,773	128	138	152	-10%
Paper consumption	reams	16,848	90	57	69	-18%
Emissions from fuel extraction for petrol	kL	126	30	17	22	-22%
Emissions from fuel extraction for diesel	kL	73	7	15	14	7%
<b>Total scope 3</b>			3,511	3,156	3,426	
<b>Scope 1 + 2 + 3</b>			16,717	16,812	16,837	
<b>Reduction measures</b>						
AGL Green power	kWh	310,580	-717	-410	-889	
<b>Net Emissions</b>			16,000	16,402	15,948	-3%