

Key sustainability results for the past 12 months at FedUni:

- greenhouse gas emissions (GHG) reduced by 10% or 2,200 tonnes
- electricity consumption reduced by 9%. (A 9% saving equates to 96 years of electricity consumption for a typical household of 4 occupants)
- gas consumption reduced by 1.5%
- water consumption reduced by 11% or 10 million litres. (it would take a typical household of 4 occupants 27 years to consume 10 million litres of water)
- recycled waste increased by 25 tonnes, an 11% improvement
- waste to landfill reduced by 38 tonnes, an 8% improvement
- FedUni recycled 38% of all waste, up from 34% last year
- fuel consumption for the vehicle fleet reduced by 12% or 26,700 litres
- Spend on V/Line travel was consistent with 2014 at \$79K
- paper consumption reduced by 14% or 2,400 reams

Greenhouse Gas Emissions

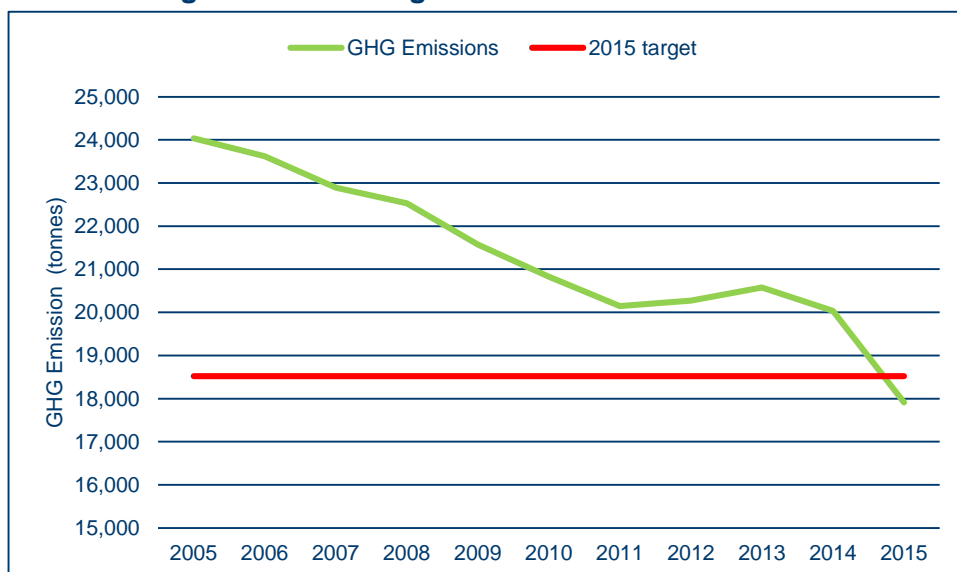
2015 Target – reduce GHG emissions by 10% (baseline 2013)

Result – Achieved a 15% reduction since 2013

Initiatives for 2016 – Large scale solar, LED light replacements and new gas heating systems

In the past 2 years FedUni has invested \$1.5 million to reduce energy and greenhouse gas emissions. This investment has achieved a 5% reduction in 2014 and a further 10% reduction in 2015. A further \$1 million will be invested in 2016 that will see more solar, LED lighting and new heating systems installed.

Greenhouse gas emissions - gross



Since 2005 the University has reduced greenhouse gas emissions by 25% (including a 15% reduction in the past 2 years).

The University Charter sets a goal to reduce emissions by 5% every year and works will be carried out in 2016 and beyond to ensure GHG emissions continue to decline.

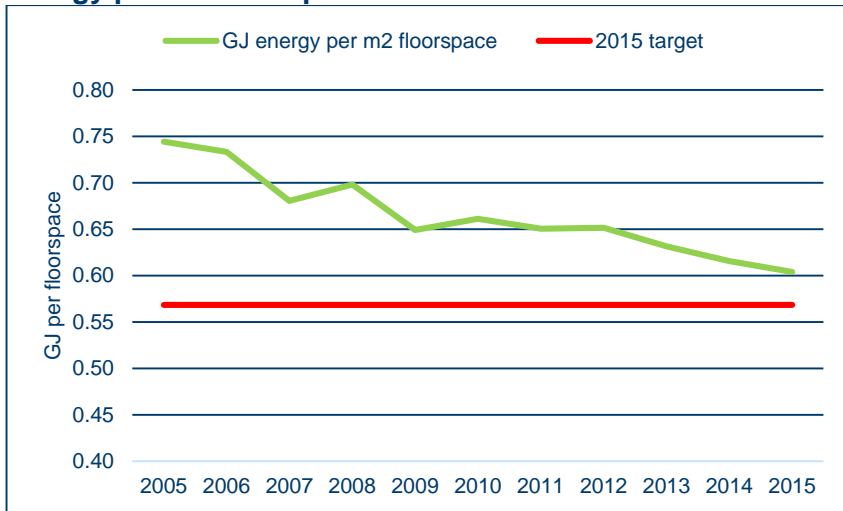
Energy

2015 Target – reduce energy by 10% per m² of floor space

Result – Achieved a 5% reduction in energy consumption per M² GFA since 2013

Initiatives for 2016 – Large scale solar, LED light replacements and new heating systems

Energy per m² floor space



Energy consumption continues to decline with a 9% decrease in electricity and a 1.5% decrease in natural gas in the past year.

Even though energy consumption has fallen, the University did not achieve the 2015 target to reduce energy consumption per m² of floor space by 10%.

Energy efficiency infrastructure will continue to be rolled out in 2016 including large scale solar systems, new gas boilers and LED lighting upgrades for all campuses.



Horsham's 70 kilowatt solar system has help reduce the campuses electricity consumption by over 30%.

More solar panels are planned for Mt Helen campus in 2016.

The University has replaced over 5,000 light fittings to LED in the past year and this program will continue in 2016.

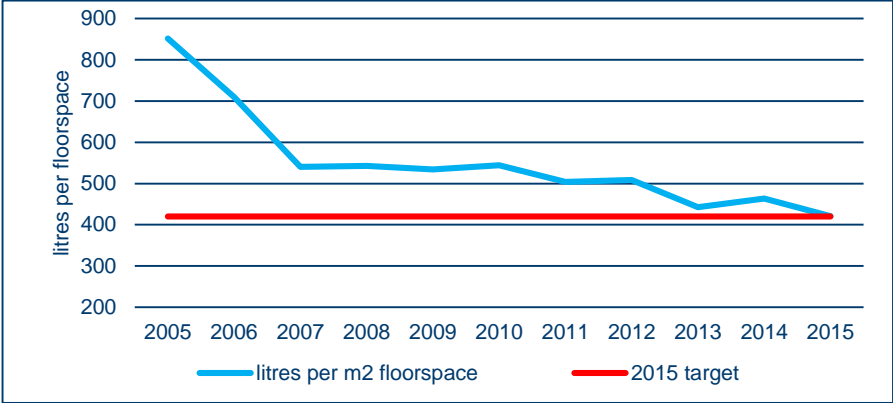
Water

2015 Target – reduce water consumption by 5% (baseline 2013)

Result – a 7% reduction in water consumption since 2013

Initiatives for 2016 – Install a 3G smart meter system that detects burst water pipes within 24 hours.

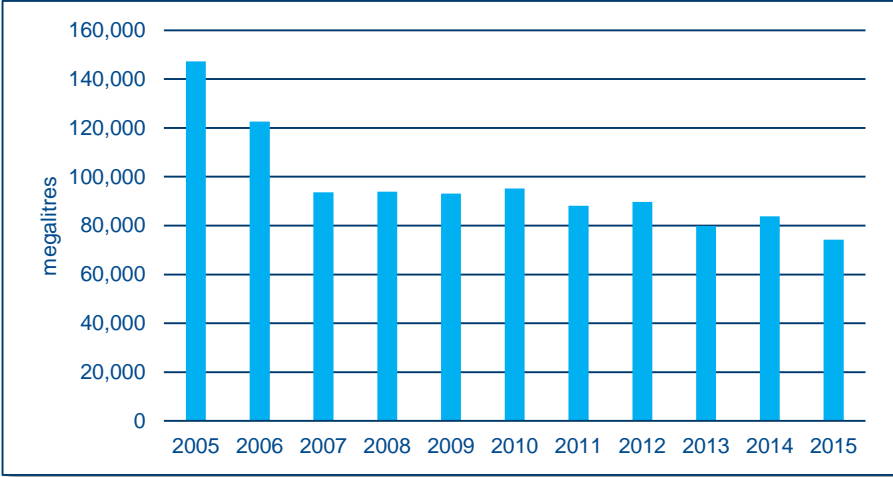
Water Consumption per m² floor space



Potable water consumption has reduced by 7% or 5.5 million litres in the past 2 years.

All campuses now have 3G smart water meters and this will detect unusually high water consumption such (eg. Burst water pipes) within a 24 hour period.

Gross Water Consumption – 10 year trend



2015 was the lowest consumption of water for the past 10 years.

74 million litres was used across the university in 2015, the second lowest was 79 million litres in 2013.

Fact: It would take the typical 4 family household 202 years to consume 74 million litres

Waste & recycling

2015 Target – Reduce landfill waste by 10% and increase recycling by 10% (baseline 2013)

Result – Achieved a 14% reduction in landfill waste and 19% increase in recycling

Initiatives for 2016 – Organic waste program for Ballarat campuses

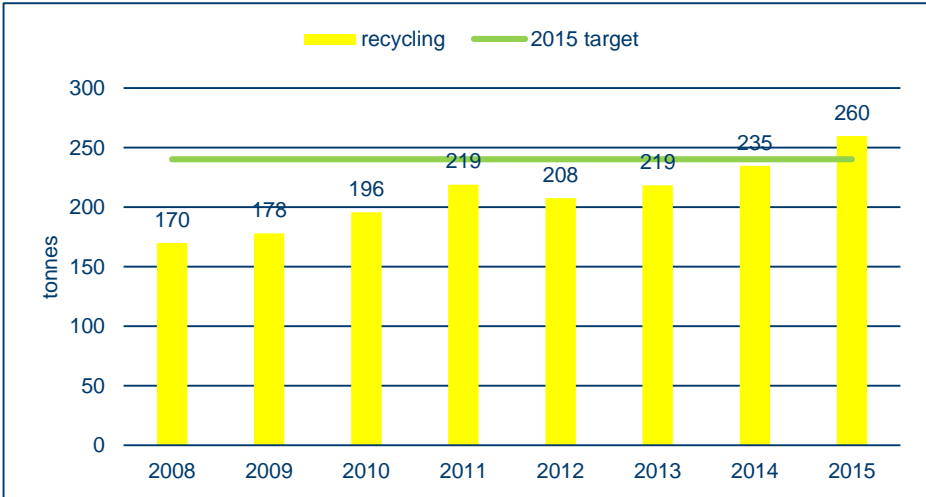
Landfill volumes



In 2015, landfill decreased by 38 tonnes, an 8% improvement.

Since 2008 the University has reduced waste to landfill by 50%

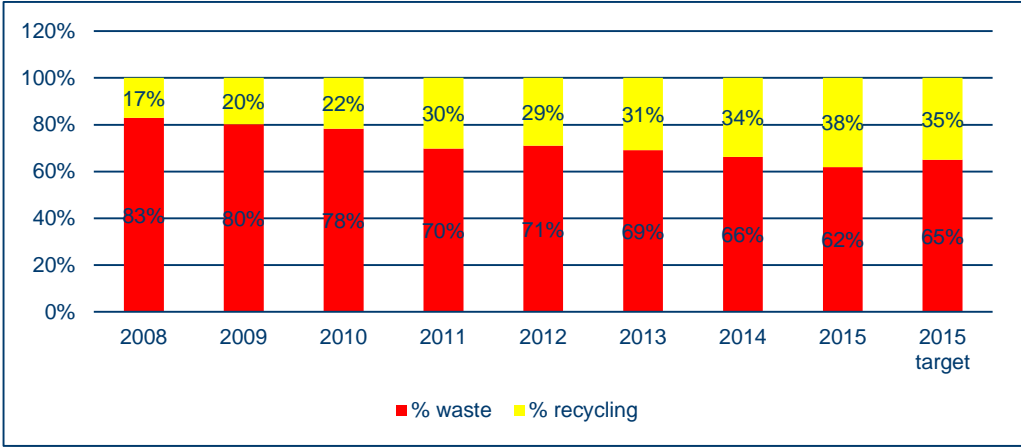
Recycling volumes



Recycling increased by 25 tonnes, and 11% improvement.

The University is now recycling food waste at the Mt Helen cafeteria, Ruby's, Mt Helen crèche and Prospects Restaurant at SMB campus.

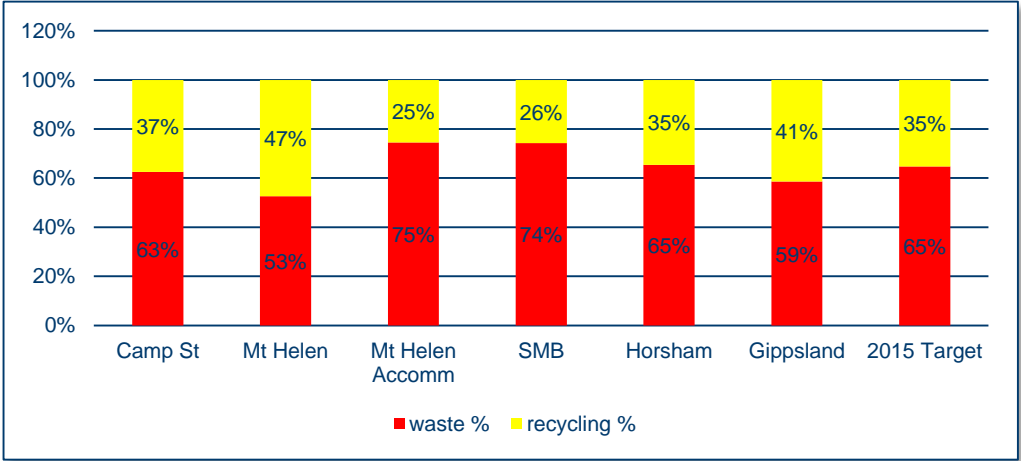
Recycling Rates



Since 2008 the rate of recycling has increased each year.

In 2015 the University recycled 38% of all waste, well above the target of 35%.

By Campus

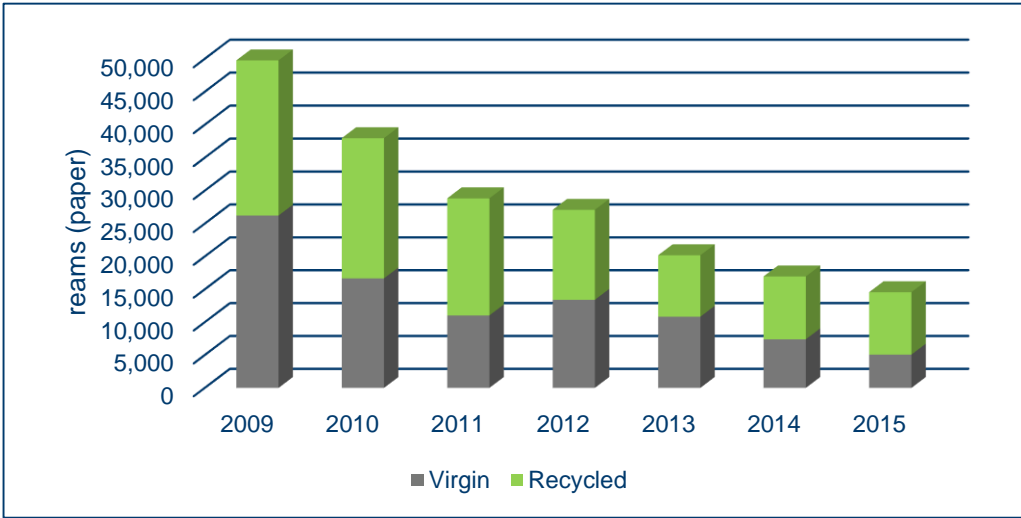


In 2015 Mt Helen was the leading recycler with 47% of their waste diverted from landfill.

Gippsland recycled 41% and Camp St 37%.

Horsham was the most improved campus going from 25% recycling rate in 2014 to 35%.

Paper Consumption



University purchased 14,500 reams of paper in 2015, a reduction of 14% or 2,400 less reams on the previous year.

65% of paper purchased had a recycled component.

Over the past 5 years paper consumption has fallen by 62%.

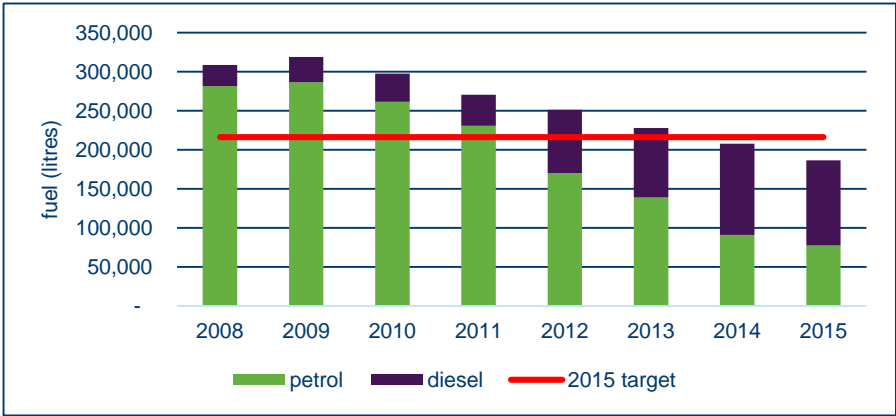
University Travel

2015 Target – Reduce University vehicle emissions by 5% (baseline 2013)

Result – Achieved a 18% reduction (105 tonnes) in University vehicle emissions between 2013 and 2015

Initiatives for 2016 – vehicle rationalisation, promotion of public transport travel

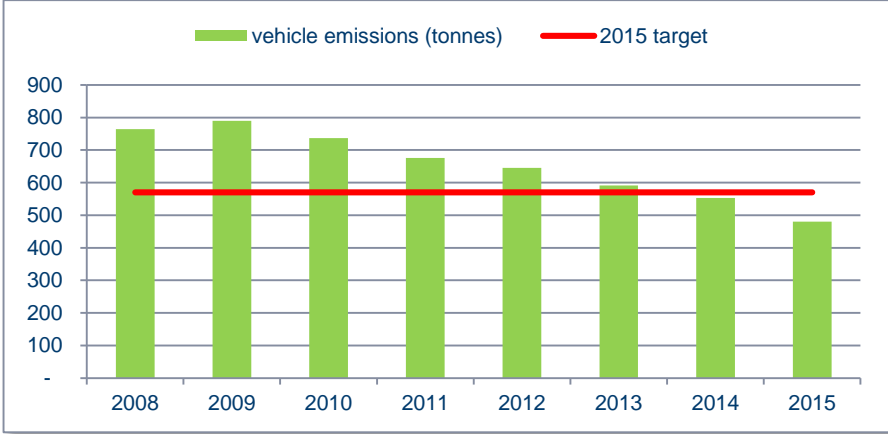
Vehicle Fuel



University fuel consumption continues to decline with a 12% or 26,700 litre reduction in the past 12 months.

The savings are attributed to the replacement of petrol vehicles with diesel. 75% of the passenger fleet is now diesel powered. 96% of the passenger fleet are 4 cylinder.

Motor Vehicle fleet - GHG emissions

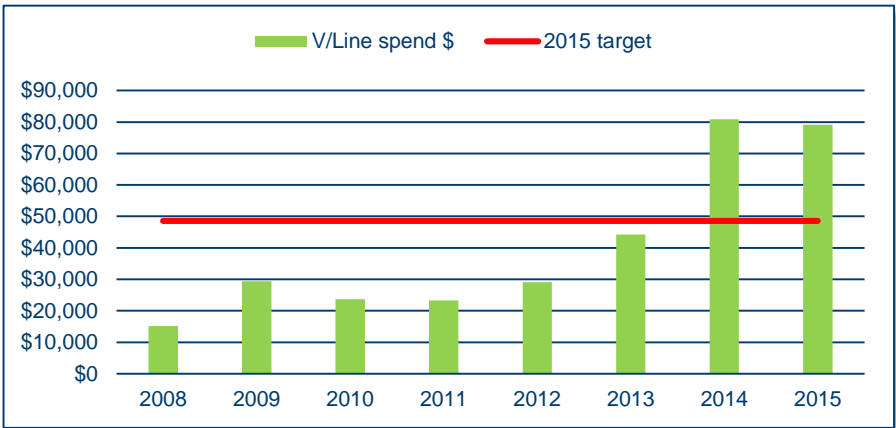


FedUni has 101 fleet vehicles and these combined to emit 486 tonnes of GHG gases in 2015.

The result is down 12% compared to the previous year and down 30% over the past 5 years.

These saving are attributed to more staff utilising public transport and improvements in vehicle efficiency through the adoption of diesel and 4 cylinders.

V/Line train expenditure



Staff have continued to utilise V/Line trains to and around Melbourne with a \$79K spend in 2015.

This spend was well above the \$48K target set for 2015.

Staff are finding public transport faster and more convenient with Myki's easy touch on, touch off and auto top up features.

2015 Carbon Inventory

The University emitted 19,939 tonnes of greenhouse gases in 2015, a reduction of 10%. The University Charter has set a goal to reduce emissions by 5% per annum for the next 2 years.

Emissions source	Consumption units	Consumption	Actual Emissions (tonnes) 2014	Actual Emissions (tonnes) 2015	change from previous year	Target emissions (tonnes) 2015
Direct emissions (Scope 1)						
Natural Gas	GJ	65,889	3,445	3,395	-1%	3,101
Petrol for vehicles	kL	79	201	184	-9%	300
LPG for vehicles	KL	0	5		0%	0
Diesel for vehicles	kL	102	315	278	-12%	299
Total Scope 1			3,966	3,857	-3%	3,700
Indirect emissions (Scope 2)						
Electricity	kWh	11,296,678	14,539	12,765	-12%	13,085
Optional Emissions (Scope 3)						
Electricity - transmission & distribution losses	kWh	11,296,678	1,848	1,469	-21%	1,663
Flights	km	9,965,689	1,062	1,094	3%	1,230
Waste - landfill	tonnes	422	506	549	9%	484
Extraction of natural gas	GJ	65,889	262	257	-2%	236
Train travel	\$	79,150	47	46	-2%	52
Water consumption	kL	74,280	196	174	-11%	186
Paper consumption	reams	14,567	60	53	-11%	54
Emissions from fuel extraction	kL	182	41	24	-41%	40
Total scope 3			4,022	3,665	-9%	3,945
Scope 1 + 2 + 3			22,527	20,288	-10%	20,730
Reduction measures						
AGL Green power	kWh	276,645	-410	-349		-381
Net Emissions			22,117	19,939	-10%	20,349