

# Environmental KPIs 2008/9 vs 2013/14

Middlesex University has taken significant steps to improve the physical estate, increase our resource efficiency and reduce our environmental impact. Actions such as new buildings, built or refurbished to a higher environmental standard, on site generation through Solar Photovoltaic and Gas CHP, replacing of lighting with high efficiency LEDs, improved insulation and upgrading of Building Management System controls. These actions combined with the consolidation of the estate into one modern campus at Hendon have enabled us to dramatically reduce our environmental impact and save money.

Below you can find a summary of the key performance indicators and the reductions in energy, water and carbon.

The financial savings this approximately equates to in terms of annual running costs is **£808,000** - who says environmental improvement cannot bring economic benefit!

## Reduction in Consumption 2008/09 vs 2013/14

Measure	Absolute	Per Student FTE
Gas kWh	-48.2%	-50.1%
Electric kWh	-25%	-27.8%
Water M <sup>3</sup>	-49%	-51.3%
tCO <sub>2</sub> e	-30.4%	-33%

Note: tCO<sub>2</sub>e – tonnes of Carbon Dioxide equivalent relating to emissions from gas and electricity.

## Travel Management

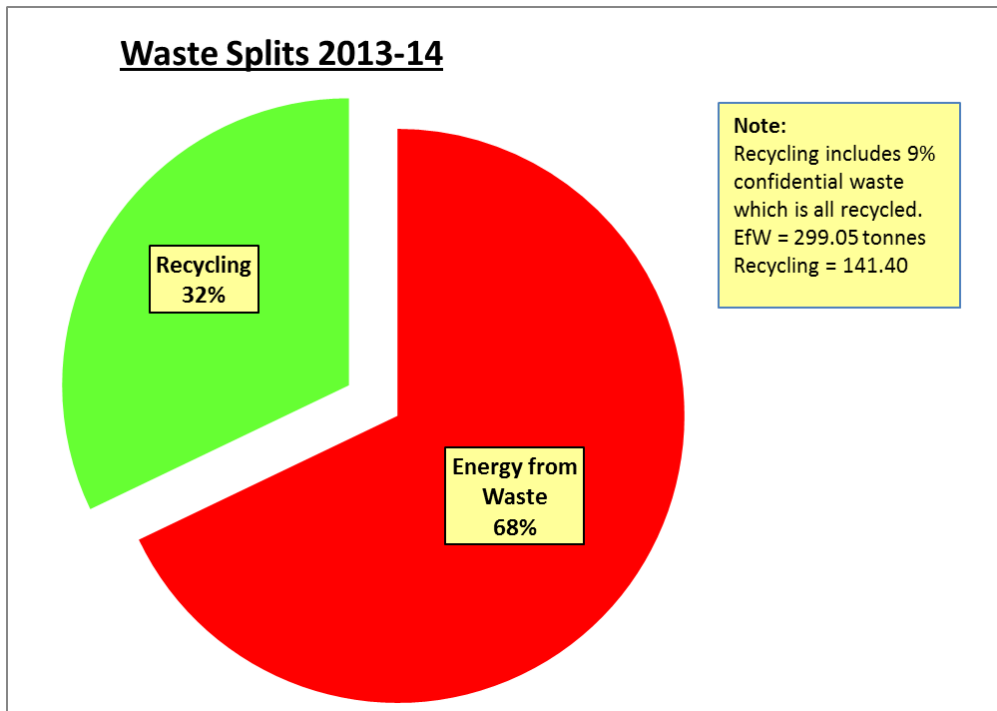
### Staff Travel Modes

Modal split from surveys					
Main Mode of travel	2012		2013		2014
	%		%		%
Driving alone	40		34		41
Car sharing	8		9		9
taxi	0		0		0
motorbike	1		2		1
bus	11		13		11
train	10		12		8
underground	18		20		17
cycle	5		4		5
walk	6		6		8
<b>TOTAL</b>	100		100		100

### Student Travel Modes

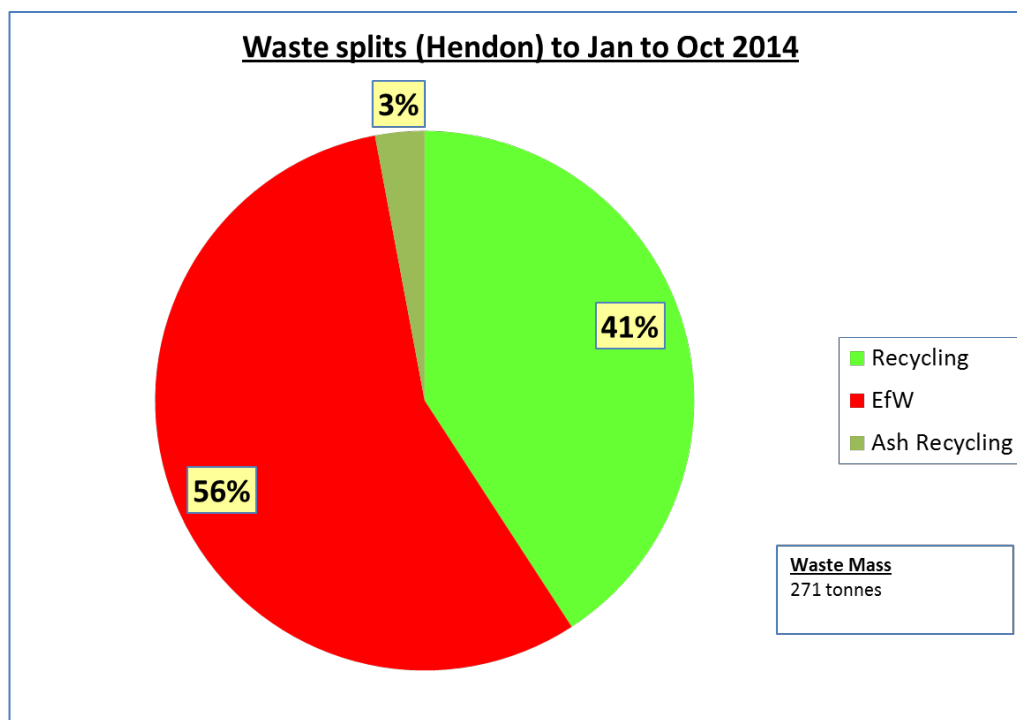
Table 1: MODE SPLIT 2010 -2014				
Mode of Transport	Mode Split			
	2013	2012	2011	2010
Cycle	1	2	3	1
On foot	18	26	34	20
Bus	26	19	20	23
Tube	29	23	21	23
Train	12	10	7	13
Drive alone	10	12	9	14
Car share	3	6	4	4
Motorcycle	1	1	1	1
Other	0	1	1	1
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

## Waste Management



Waste Management contract re-tendered in partnership with ISS and a much improved service with Grundons was introduced in January 2014. All general waste streams are now Zero to landfill, metal waste collections have increased and food waste collections have been introduced. Splits between EfW and recycling much improved as shown below:

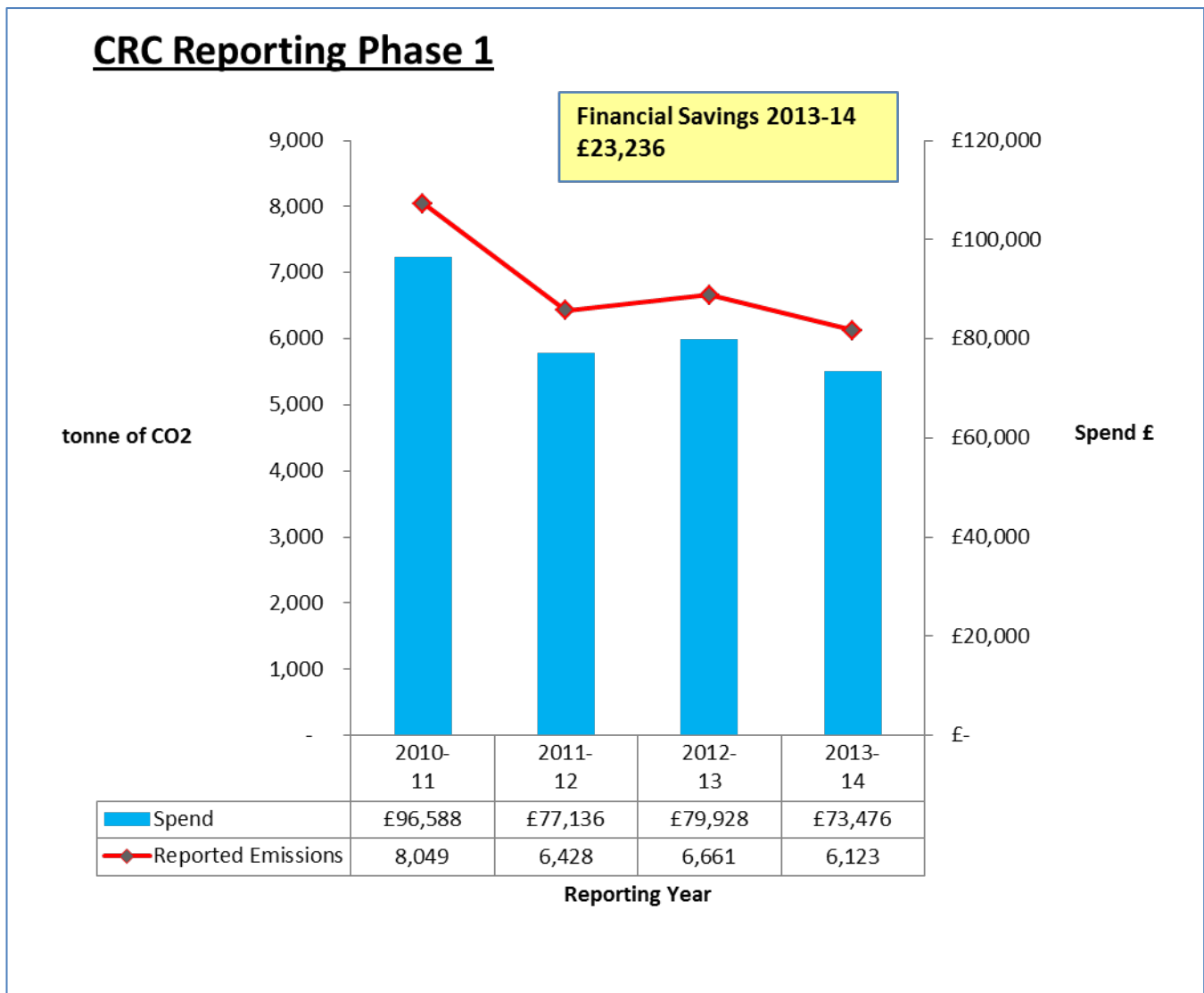
### **Waste splits under New Contract at last reporting quarter**



## CRC Energy Efficiency Scheme performance

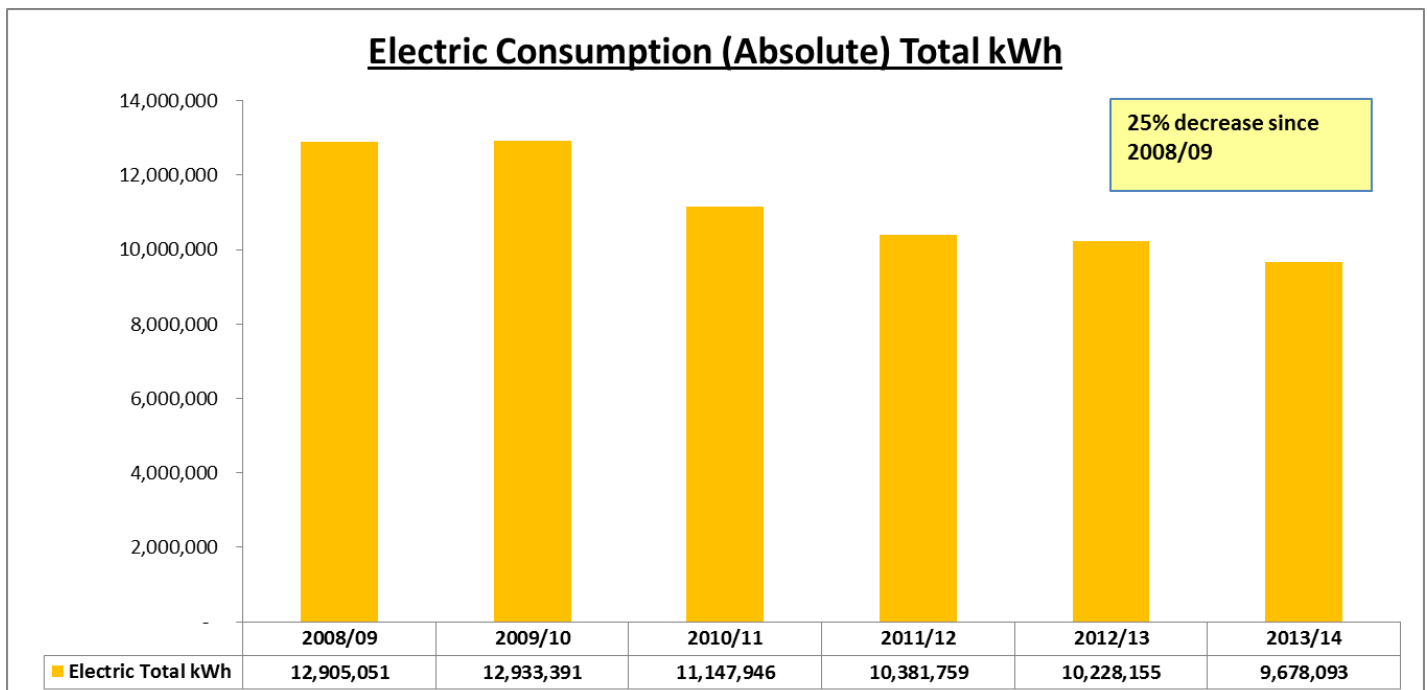
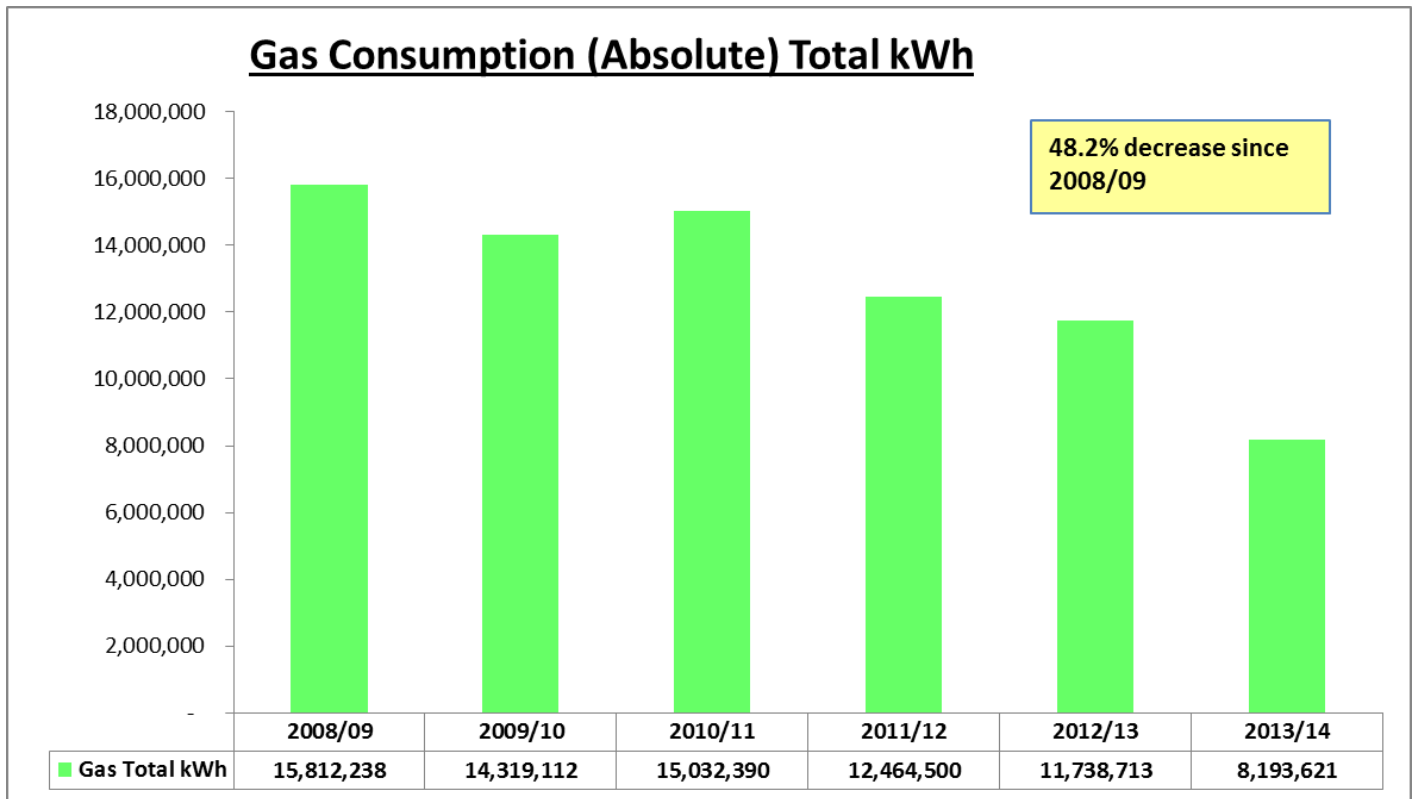
Middlesex University is required by law to participate in the above scheme which involves benchmarking all relevant energy consumption that falls into the reporting criteria, determining the carbon emissions produced and then purchasing allowances at £12 per tonne for every tonne of Carbon Dioxide equivalent released (increasing to £16.40 from April 2014).

The actions taken over the last four years outlined earlier have reduced our financial exposure to this scheme and emissions by nearly a quarter.

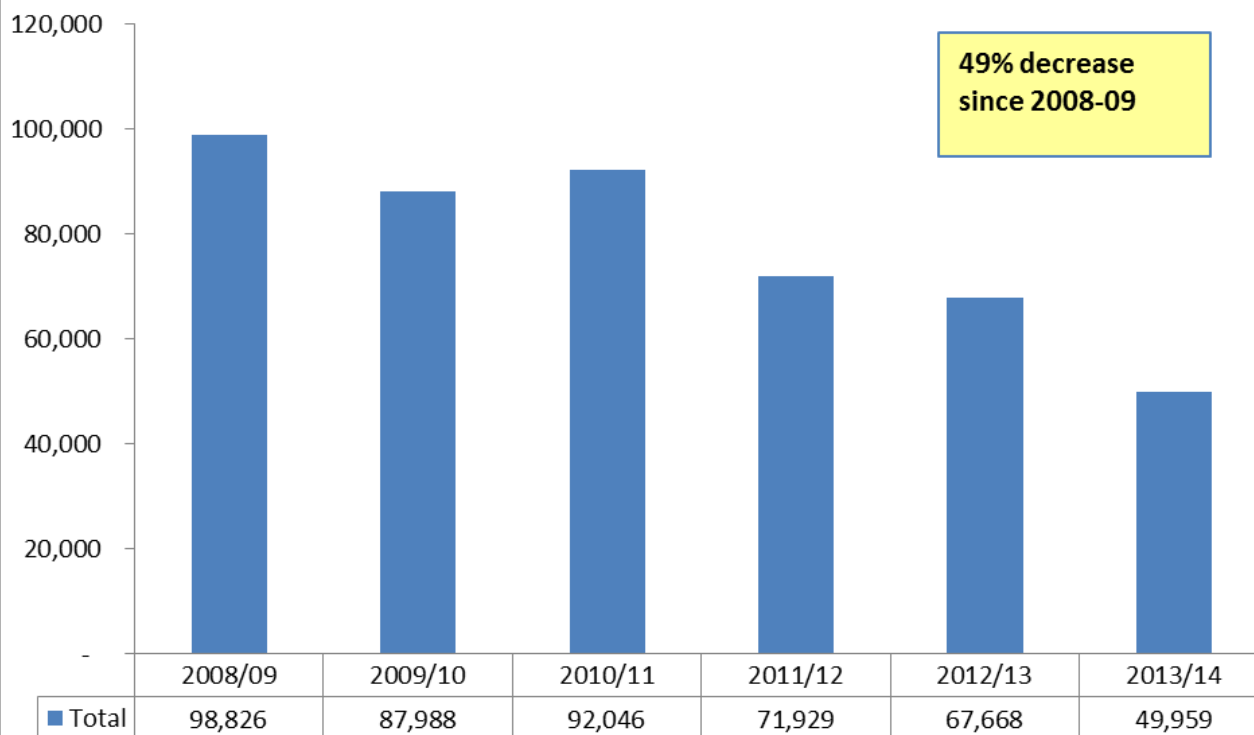


Note: Emissions will differ slightly from those reported elsewhere in this document and in other reporting benchmarks as some supplies of gas and electric are exempt from reporting under the CRC Energy Efficiency Scheme.

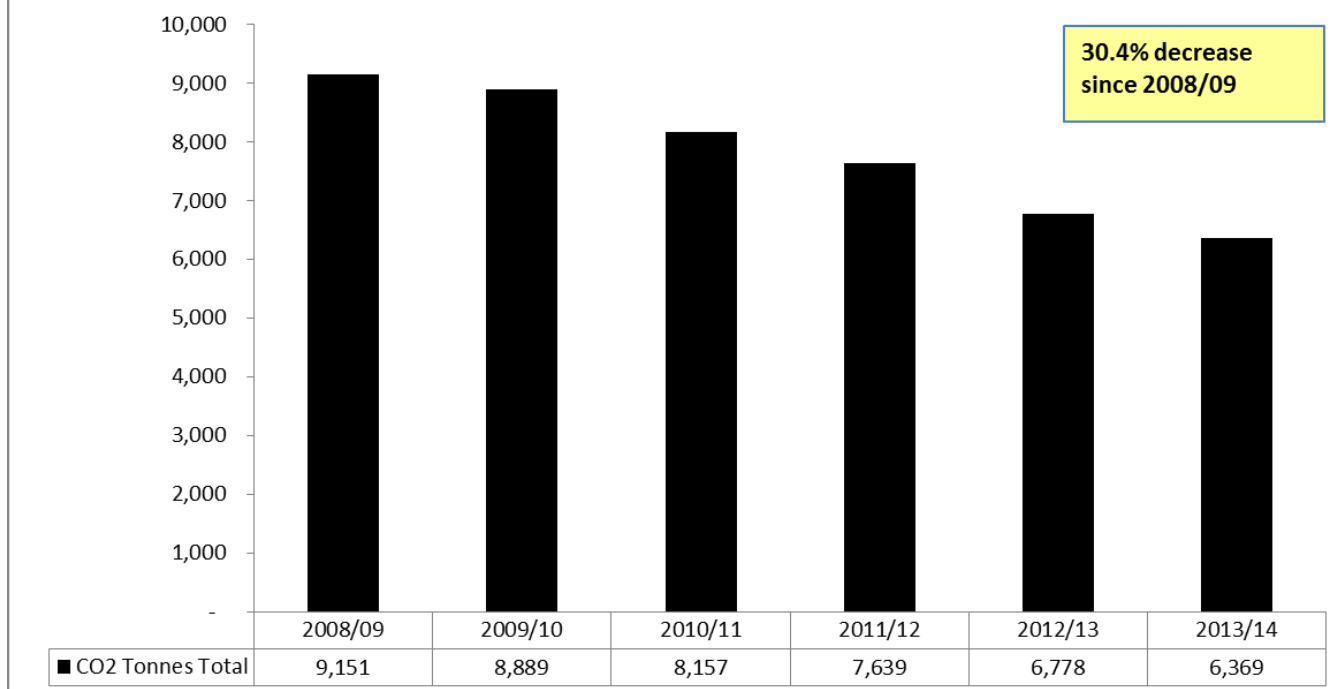
## Key Energy, Water & Carbon metrics - Absolute



### Total Water Consumed (Absolute) M<sup>3</sup>

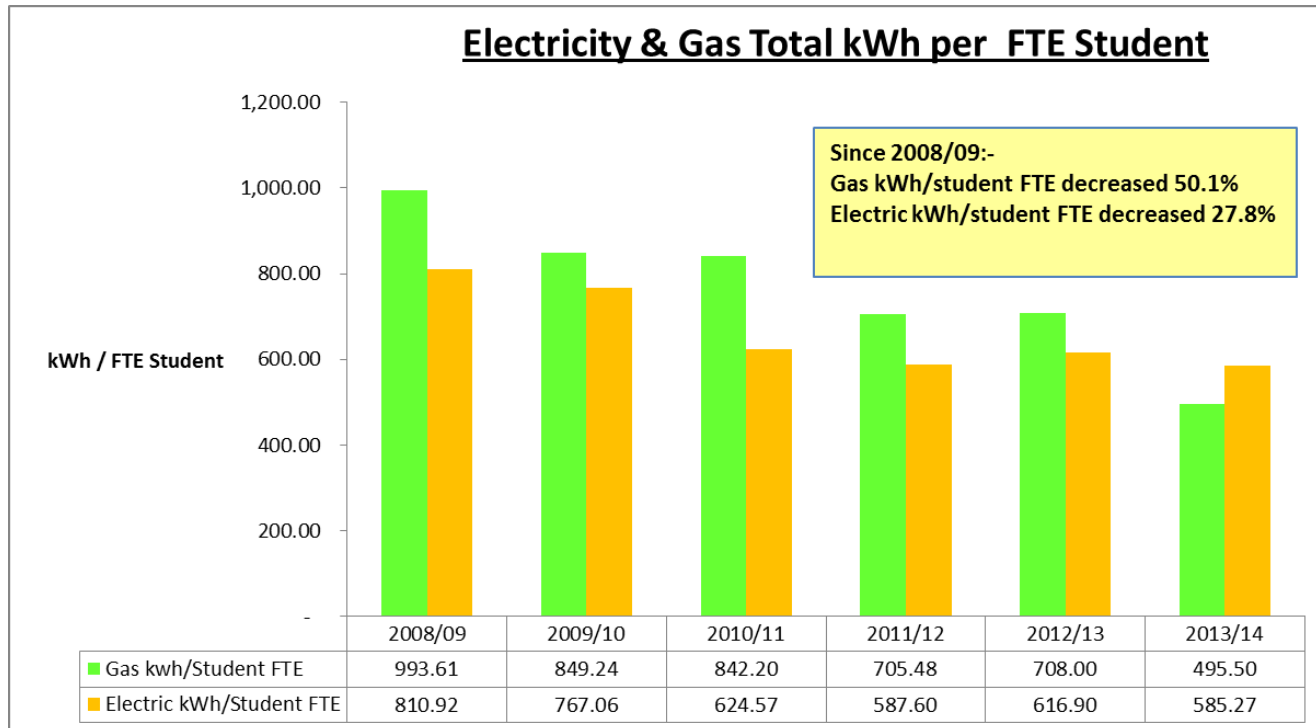


### Tonnes of CO<sub>2</sub> Emissions Scope 1 & 2 (Absolute)

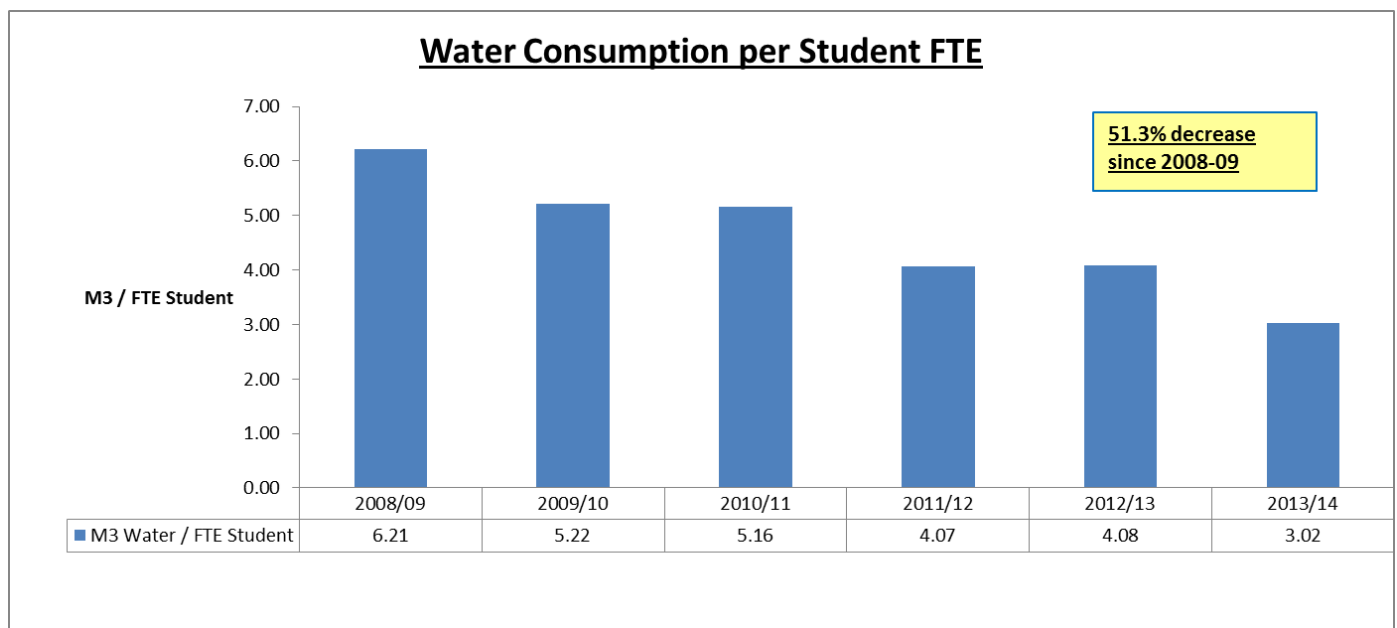


# Key Energy, Water & Carbon metrics – Normalised against Student FTE\*

\*Full Time Equivalents



Note: these are not degree day adjusted.



### Tonnes of CO<sub>2</sub> (Scope 1 & 2) Emissions per FTE Student

