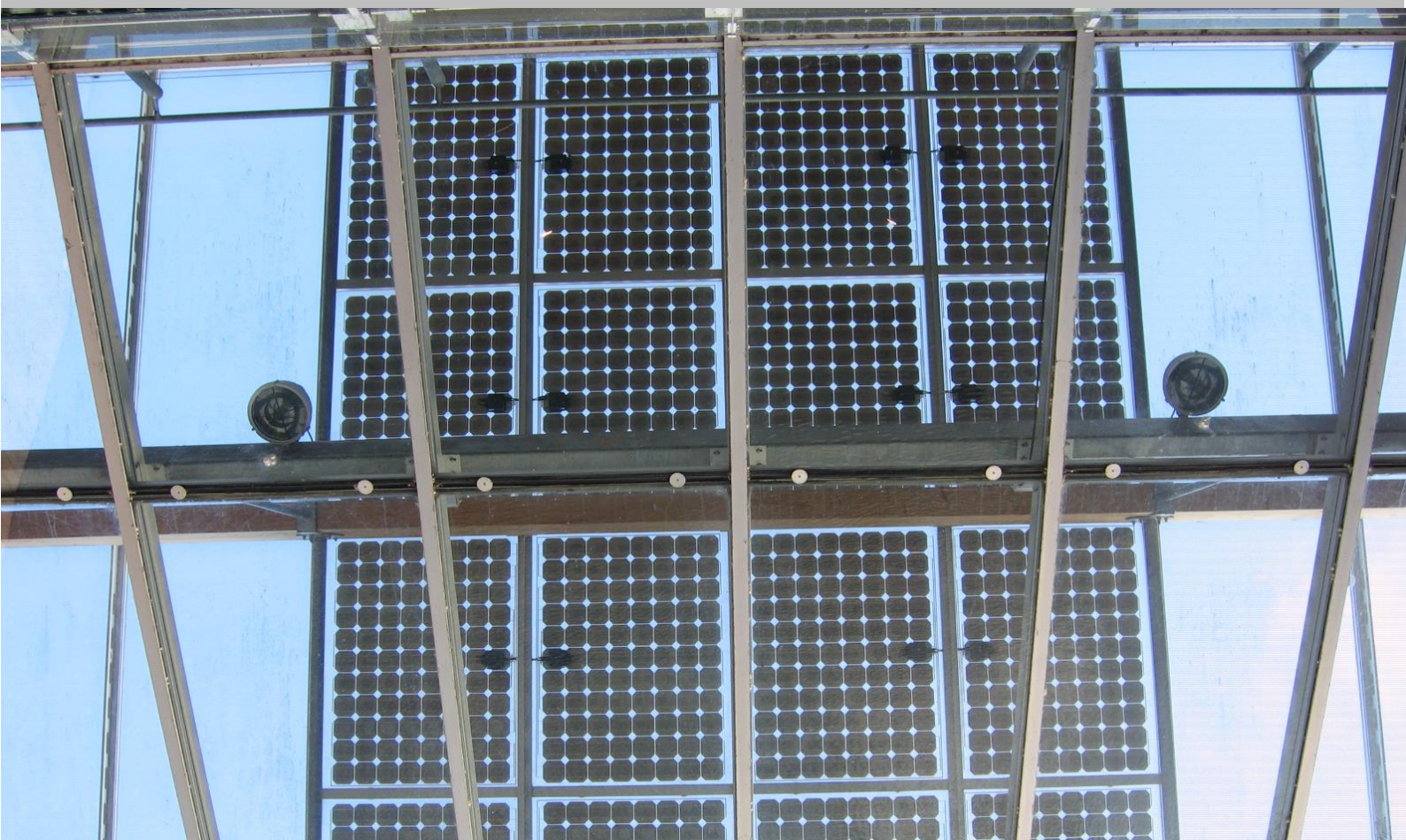




Annual Energy Report 2014/15

<http://www.nottingham.ac.uk/sustainability>



2014/15 Energy Report

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Executive Summary

There was a modest increase in energy consumption in 2014/15 due to the colder weather, and a welcome reduction in overall utility costs. Looking forward, there will be major challenges in the next couple of years to both energy consumption and costs as significant new building projects expanding the University's Estate are completed.

Key statistics:-

Energy and water costs, excluding taxes, fell 5% to £11.1 million in 2014/15

Energy consumption rose by 2.7%, largely as a result of increasing gas usage. Gas was up by 4.2% whilst electricity usage was up by 0.5%.

Water usage increased by 1% to 861,016 cubic metres.

Other observations:-

Utility costs/m² down 5.1% to £20.13

Energy consumption/m² up 2.0% to 321kWh/m²

Energy costs/student down 4.0% to £384

Energy consumption/student up 3.2% to 6,115kWh

External drivers:-

This year floor area rose by 0.6% and the weather was significantly cooler, indicating an increase in gas usage of 9% in a like for like situation (see section 3.A on P.19).

The University has published an annual report showing trends in our energy and water usage every year since 1998. With the increasing attention on carbon emissions, some elements of this report have now been subsumed within the University's Carbon Management Plan (CMP) Annual Report 2014/15 which has been published and is available on the University's website¹. However, we will continue to produce the Energy and Water Report to allow direct comparison on the key areas of utility consumption and costs with earlier years.

¹www.nottingham.ac.uk/sustainability

Note that most figures relate to the University's financial year of August 1st 2014 to July 31st 2015, with the baseline for comparison being the previous (2013/14) financial year. Utilities continue to be procured via Notice Ltd, which is a wholly owned subsidiary of the University of Nottingham.

Section 1 – Total Energy Report

1.A. - Energy and Water Costs Summary

Energy and water costs were down by 5% to £11.1 million. This was principally attributable to falls in gas prices where year on year reductions of 22% were seen.

The University continued its policy of 'flexible' energy purchasing; this allowed us to take advantage of the falls in world energy prices seen during the year. By not locking in to the higher prices available at the start of the year, savings of £530k on electricity and £436k on gas were made.

Section 1.K shows that our energy costs per kWh are now the lowest in the Russell Group (2013/14 data).

Energy and Water Costs				Change
	2012/13	2013/14	2014/15	'13/14 to '14/15
University Park	£ 6,350,320	£ 5,995,749	£ 5,865,817	-2%
Sutton Bonington	£ 1,819,106	£ 1,765,681	£ 1,823,916	3%
Jubilee Campus	£ 1,094,625	£ 1,131,350	£ 1,133,034	0%
Others	£ 694,888	£ 672,626	£ 651,144	-3%
Medical School	£ 1,868,700	£ 2,098,000	£ 1,609,500	-23%
Total	£ 11,827,640	£11,663,406	£11,083,411	-5%

Figure 1.A.1 Table of energy and water costs for last 3 years split by campus.

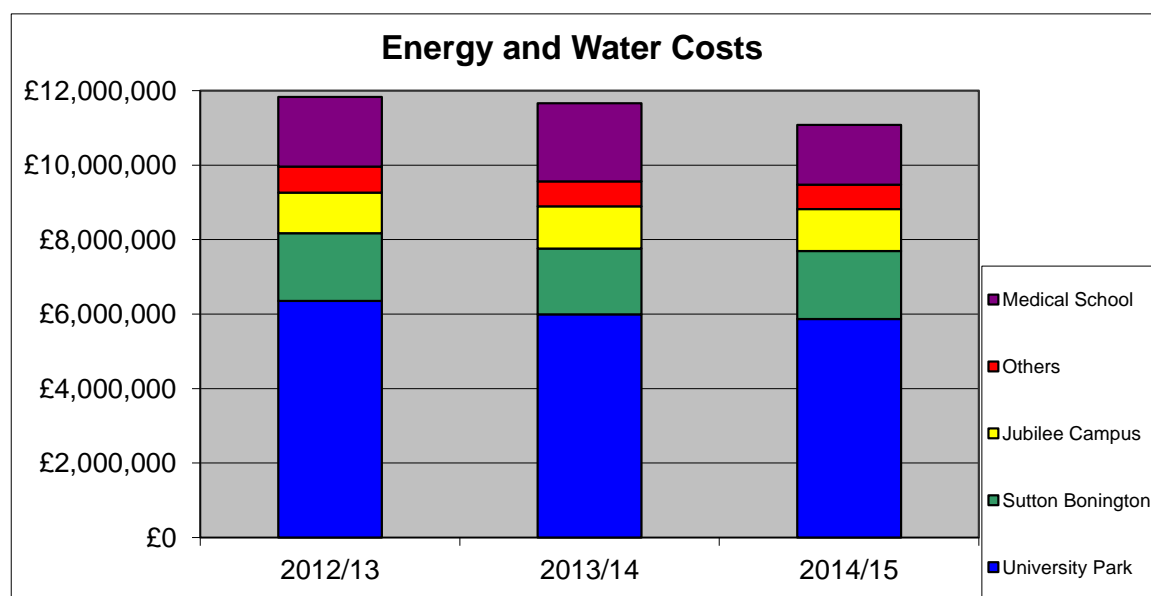


Figure 1.A.2 Graph of net energy and water costs for the last 3 years split by campus.

Note that these figures exclude VAT and Climate Change Levy, which are discussed on page 4.

1.B. – Utility costs per square metre for each Campus

Campus Costs	Floor Area	Cost/sq.m/annum			
		Electricity	Heating	Water	Total
University Park	331,486	£11.10	£3.80	£2.80	£17.70
Sutton Bonington	77,293	£13.92	£5.24	£4.44	£23.60
Jubilee Campus	78,162	£8.86	£2.52	£3.12	£14.50
Others	70,830	£5.35	£2.66	£1.19	£9.19
Medical School	75,536	£8.61	£11.45	£1.25	£21.31
Total	633,307	£10.23	£4.60	£2.67	£17.50

Figure 1.B.1 Table of energy costs per square metre, split by campus.

The overall floor area increased by 0.6% from 2013/14 with the addition of The Barn at Sutton Bonington.

Note that if taxes (VAT and CCL, see below) are taken into account, our average utility costs are now £20.13 per square metre per annum, down 7.2% year on year.

1.C - Climate Change Levy (CCL) and VAT

VAT costs paid by Notice Ltd on energy bills reduced slightly to £1.31 million in 2014/15, and CCL rose slightly £361,000, meaning that our energy taxes were down by 1.5% year on year.

The Climate Change Levy (CCL) was introduced in April 2001. On April 1st 2015 the rates rose 2.66% to 0.193p/kWh on gas and 2.4% to 0.554p/kWh on the electricity costs of all non-residential properties.

If the taxes were included in the total expenditure on utilities the totals can be seen below:-

	2014/15				2013/14
	Electricity	Fossil Fuels	Water	Totals	Totals
Utility Costs	£ 6,476,682	£ 2,914,868	£ 1,691,861	£11,083,411	£11,663,406
Climate Change Levy	£ 251,230	£ 109,492	-	£ 360,721	£347,675
Value Added Tax	£ 888,962	£ 416,257	-	£ 1,305,219	£1,343,026
Total	£ 7,616,873	£ 3,440,617	£ 1,691,861	£12,749,351	£13,354,107

Figure 1.C.1 Table of energy and water costs including Climate Change Levy and Value Added Tax.

1.D - 2014/2015 Net Costs Broken Down by Campus and Utilities

Energy and Water Costs				
2014/15	Electricity	Fossil Fuels	Water	Total
University Park	£ 3,679,990	£ 1,259,135	£ 926,692	£ 5,865,817
Sutton Bonington	£ 1,075,835	£ 405,206	£ 342,875	£ 1,823,916
Jubilee Campus	£ 692,261	£ 197,220	£ 243,553	£ 1,133,034
Others	£ 378,596	£ 188,306	£ 84,242	£ 651,144
Medical School	£ 650,000	£ 865,000	£ 94,500	£ 1,609,500
Total	£ 6,476,682	£ 2,914,868	£ 1,691,861	£ 11,083,411

Figure 1.D.1 Table of energy and water costs split by campus and by utility

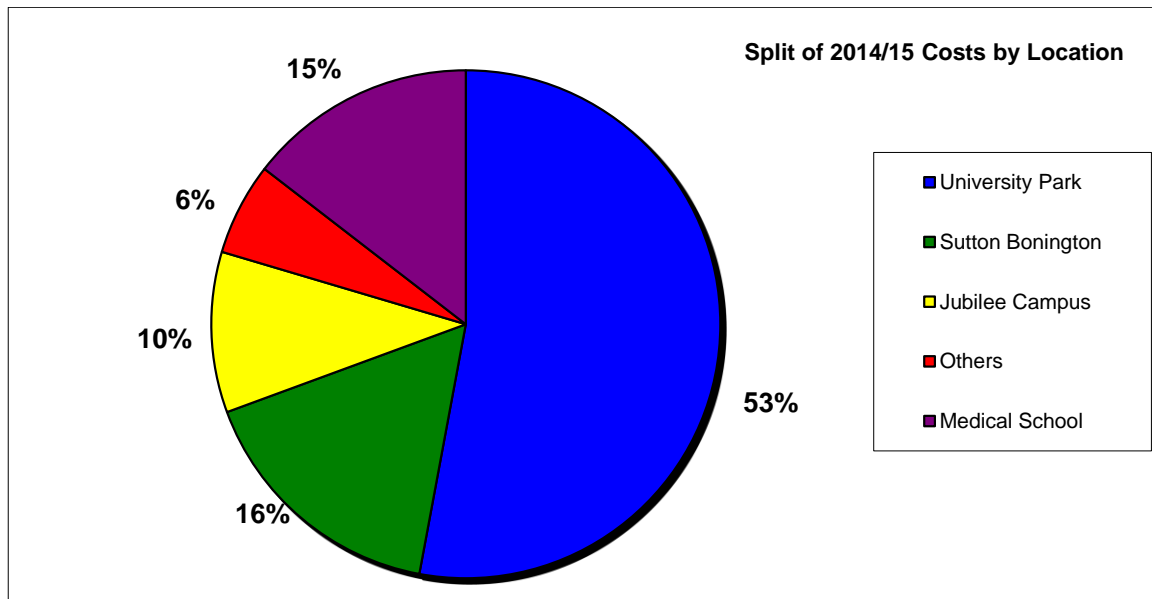


Figure 1.D.2 Chart of energy and water costs split by campus

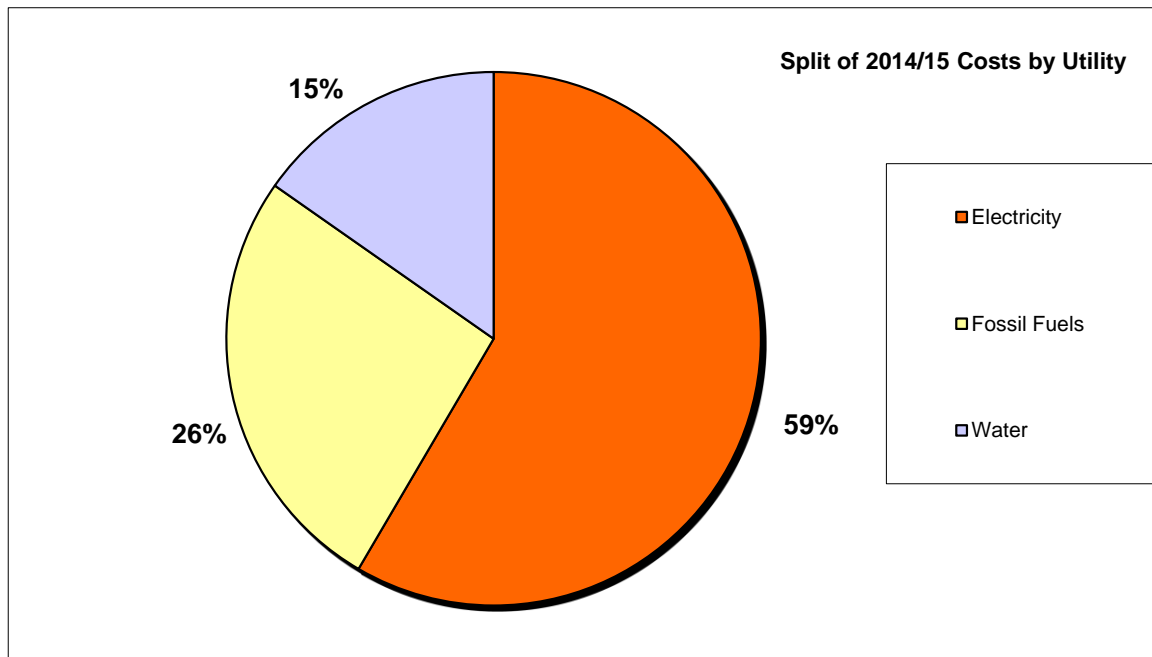


Figure 1.D.3 Chart of energy and water costs split by utility type

1.E - Energy Use Summary

Although energy consumption increased by 2.7% year on year, this was a relatively good performance due to the significantly colder weather (see Section 3.A on P.19). Gas consumption was up by 4.2%, when the weather should have caused an increase of 8.8%. Electricity usage was up by 0.5%, similar to the increase in floor area of 0.6%

The positive effects of capital investment in the Medical School are beginning to be seen, with the building showing a better performance relative to the other locations.

Energy Consumption	MWh	MWh	MWh	Change
	2012/13	2013/14	2014/15	'13/14 to '14/15
University Park	113,056	102,959	105,667	2.6%
Sutton Bonington	33,415	31,205	32,294	3.5%
Jubilee Campus	17,315	16,165	16,917	4.7%
Others	14,201	12,420	12,834	3.3%
Medical School	36,329	34,987	35,289	0.9%
Total	214,315	197,736	203,001	2.7%

Figure 1.E.1 Table of energy usage for the last 3 years split by campus.

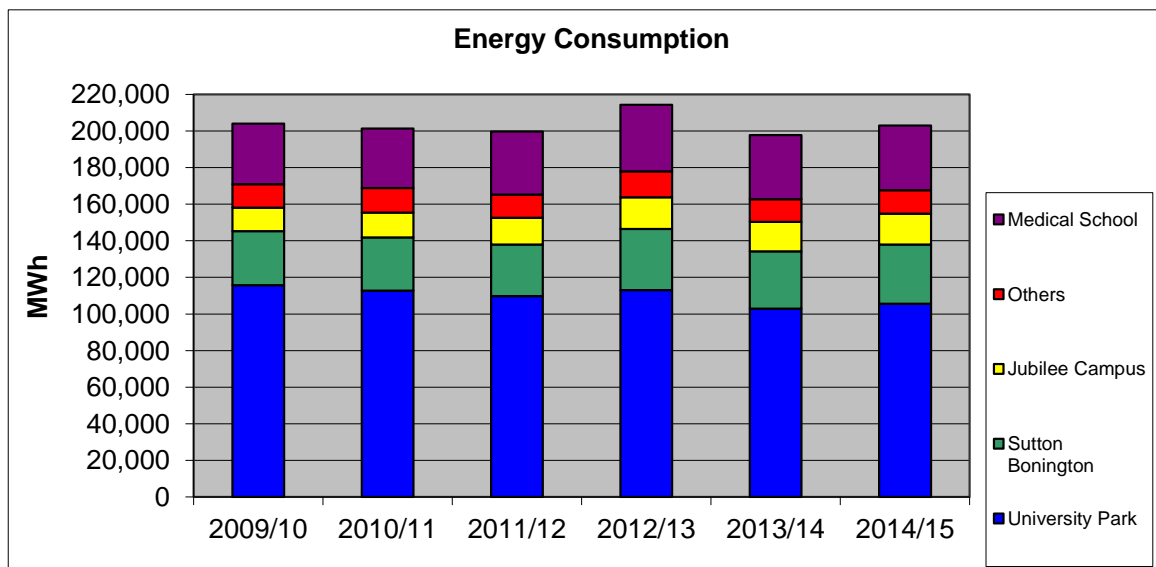


Figure 1.E.2 Graph of energy consumption for the last 6 years split by campus

1.F - Energy Use Breakdown by Campus and Utilities

Energy Consumption 2014/2015	MWh	MWh	MWh
	Electricity	Fossil Fuels	Total
University Park	46,102	59,566	105,667
Sutton Bonington	13,251	19,043	32,294
Jubilee Campus	8,316	8,601	16,917
Others	4,480	8,354	12,834
Medical School	9,994	25,295	35,289
Total	82,143	120,858	203,001

Figure 1.F.1 Table of energy consumption split by campus and by utility

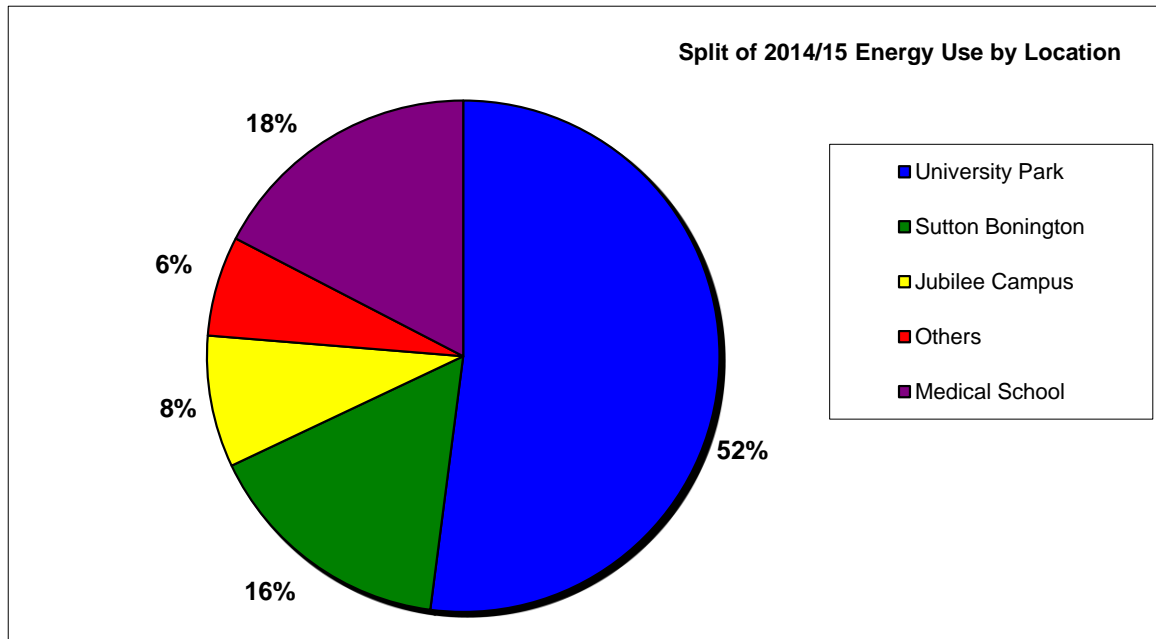


Figure 1.F.2 Pie chart of energy consumption split by campus

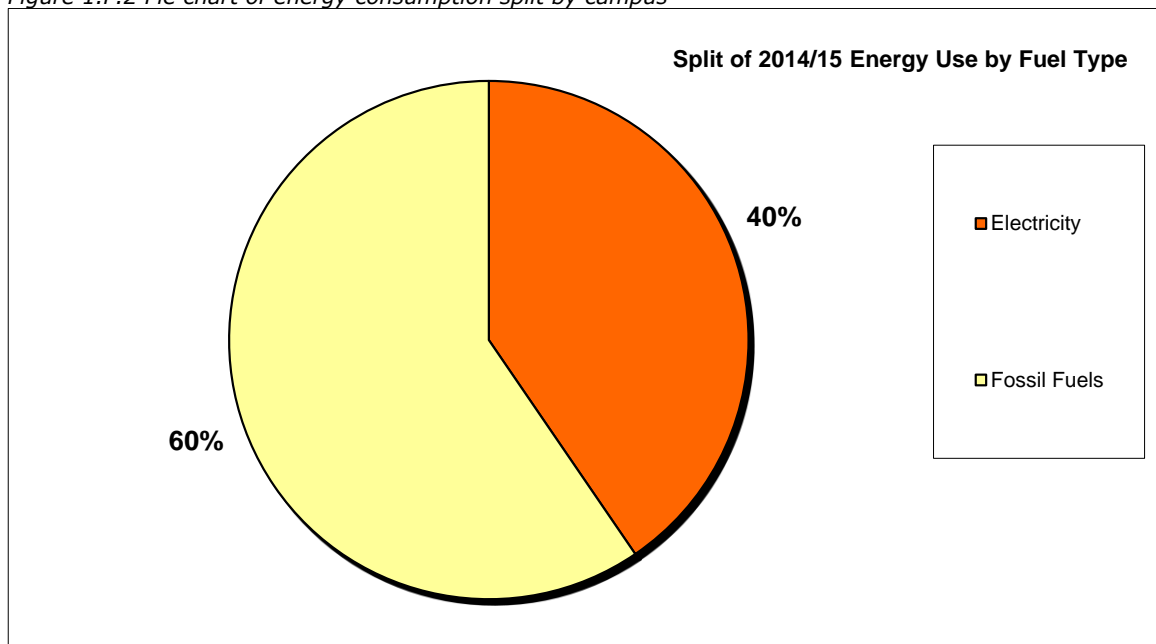


Figure 1.F.3 Pie chart of energy consumption split by utility type.

Note: Our 'fossil fuels' are over 99% gas

1.G - Energy Usage and Cost Comparison with Gross Premises Area

	2011/12	2012/13	2013/14	2014/15	Change
Floor Area (sq.m.)	605,328	626,560	629,510	633,307	0.6%
Annual Energy Usage (MWh)	199,776	214,315	197,736	203,001	2.7%
Energy Usage Per sq. m. (kWh/m²)	330	342	314	321	2.0%

Figure 1.G.1 Table of last four years energy usage and floor area.

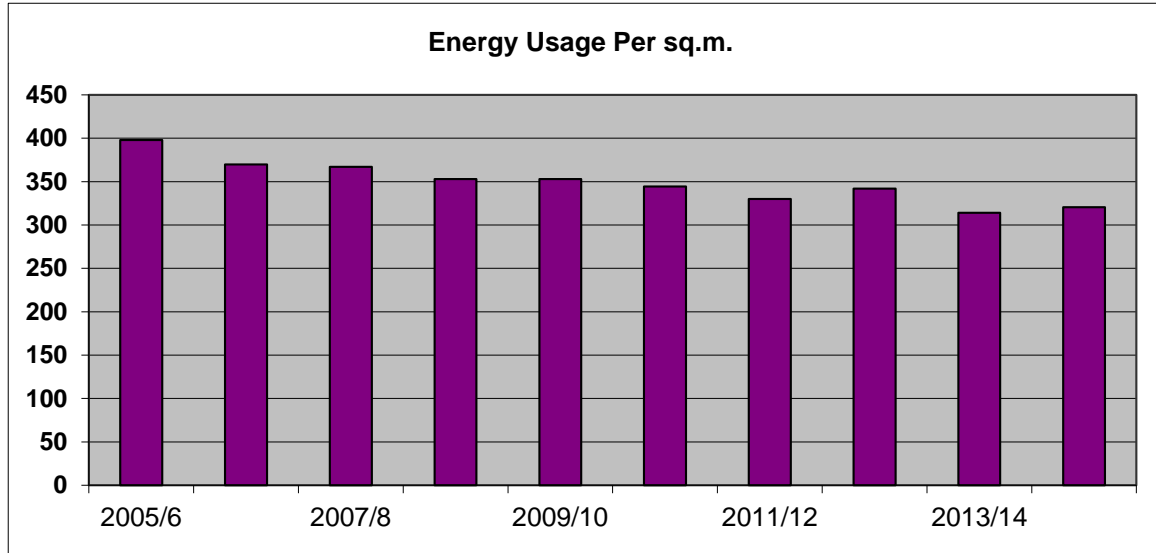


Figure 1.G.2 Graph of last ten years energy usage per unit floor area.

Note that energy consumption was 425kWh/ m² back in 2004/5, and 396 kWh/m² in 2007/8.

	2011/12	2012/13	2013/14	2014/15	Change
Floor Area (sq.m.)	605,328	626,560	629,510	633,307	0.6%
Gross Energy and Water Costs	£11,797,000	£13,661,000	£13,354,000	£12,749,351	-4.5%
Utility Cost Per sq. m.	£ 19.49	£ 21.80	£ 21.21	£ 20.13	-5.1%

Figure 1.G.3 Table of last four year gross energy and water costs and floor area (excluding taxes).

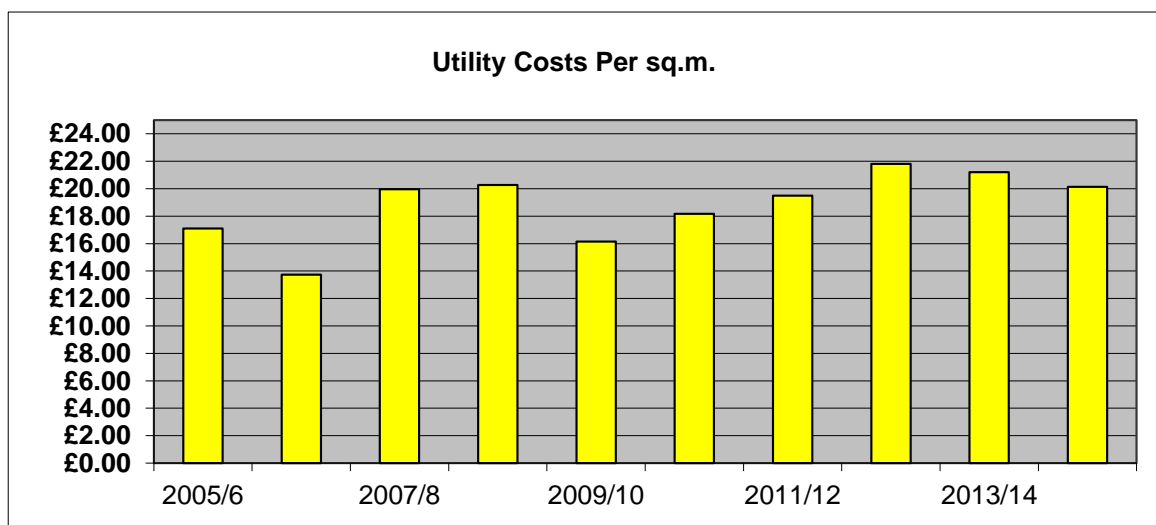


Figure 1.G.4 Graph of last ten years energy and water costs normalised by floor area.

1.H - Energy Usage and Cost per UK Student

	2011/12	2012/13	2013/14	2014/15	Change
UK Student Numbers	34,076	33,944	33,369	33,197	-0.5%
Annual Energy (MWh)	199,776	214,315	197,736	203,001	2.7%
Energy / Student (kWh)	5,863	6,314	5,926	6,115	3.2%

Figure 1.H.1 Table of last four years energy usage and all student numbers.

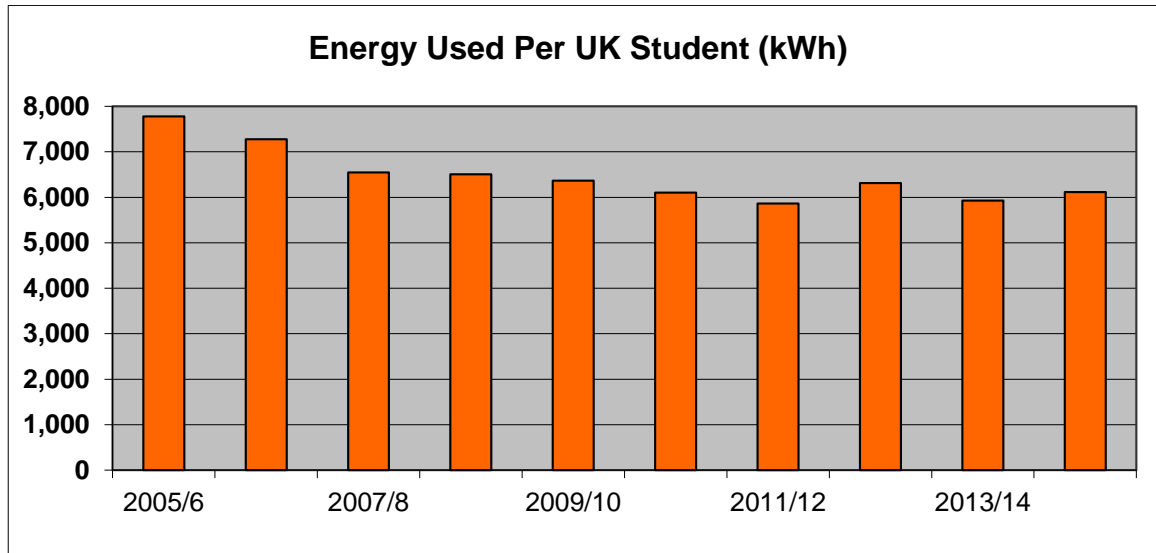


Figure 1.H.2 Graph of last ten years energy usage per UK student.

	2011/12	2012/13	2013/14	2014/15	Change
UK Student Numbers	34,076	33,944	33,369	33,197	-0.5%
Energy and Water Costs	£11,797,000	£13,661,000	£13,354,000	£12,749,351	-4.5%
Utility Costs / Student	£ 346.20	£ 402.46	£ 400.19	£ 384.05	-4.0%

Figure 1.H.3 Table of last four years gross energy and water costs and full-time student numbers.

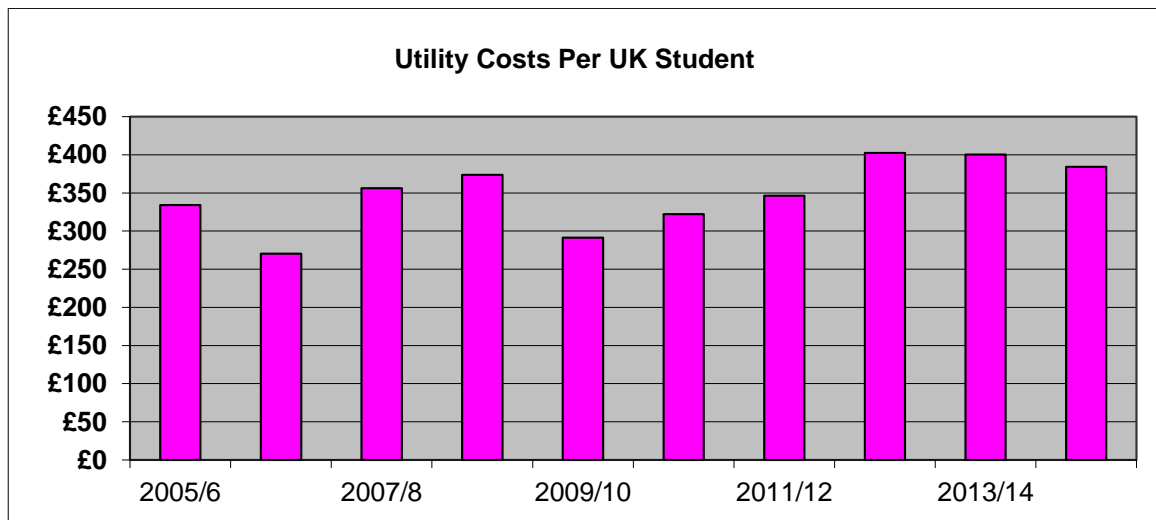


Figure 1.H.4 Graph of last ten years gross energy and water costs per UK student.

Note: The statistics on student numbers exclude students not currently studying in Nottingham.

1.I - Utility Costs as a Proportion of University Expenditure

STILL AWAITING DATA

%age of Expenditure (£ 000)	2011/12	2012/13	2013/14	2014/15	Change
Utility Costs inc. taxes	£ 11,797	£ 13,661	£ 13,354	£ 12,749	-4.5%
University Expenditure	£ 500,300	£ 539,400	£ 545,900	£ 545,900	0.0%
Percentage	2.36%	2.53%	2.45%	2.34%	-4.5%

Figure 1.I.1 Table of last four years gross energy and water costs (including taxes) and total University expenditure.

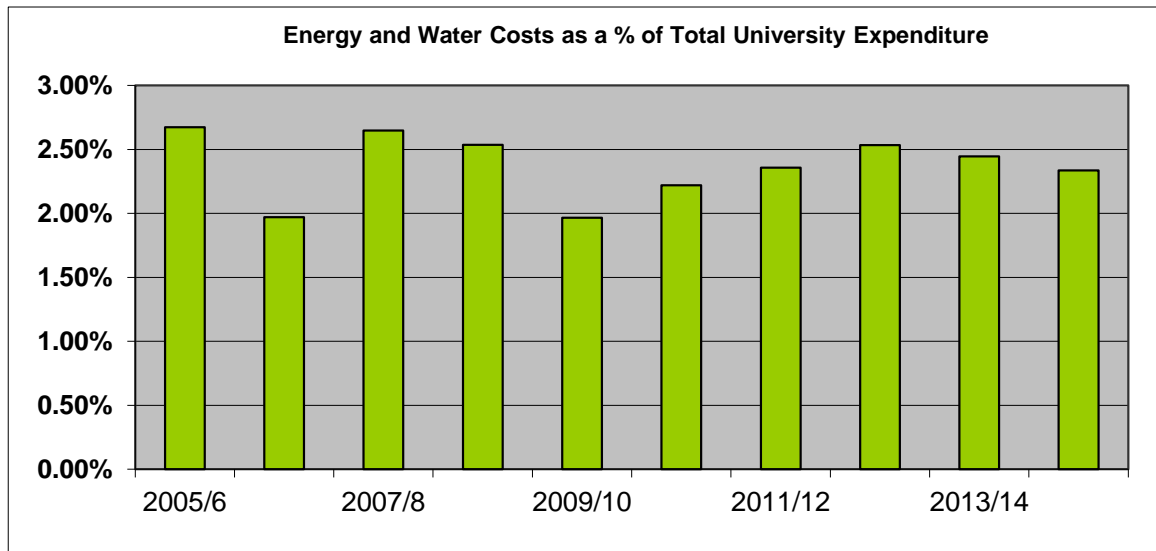


Figure 1.I.2 Graph of last ten years gross energy and water costs normalised by total University turnover.

1.J – The Carbon Reduction Commitment Energy Efficiency Scheme

Costs from the CRC Energy Efficiency Scheme are not included in the other figures in this report, because the scheme operates on an April to March year, costs are not levied on utility bills, and the Scheme operates on a slightly different subset of properties. However, the results of the fourth full year of the scheme (April 2014 to March 2015) are listed below.

Under the Scheme, our emissions were reported as 54,434 Tonnes of CO₂ (down 1.3% from 55,148 in the previous year). Each tonne of CO₂ emitted needs to be covered by an 'allowance', which costs £15.60 if pre-ordered or £16.40 if bought to comply. 55,000 allowances were pre-ordered at a cost of £858,000.

Note that the cost of 54,434 allowances (£849,170), averaged out across our total energy consumption, equates to 0.418p/kWh.

1.K – Energy Costs Comparison to Russell Group Universities – 2013/14

The statistics in the next four tables provide a range of comparators to other major Universities, as reported in the EMS returns for 2013/14. Note that this is the most recent year where data is available for comparison, but runs one year behind the other information presented in this report.

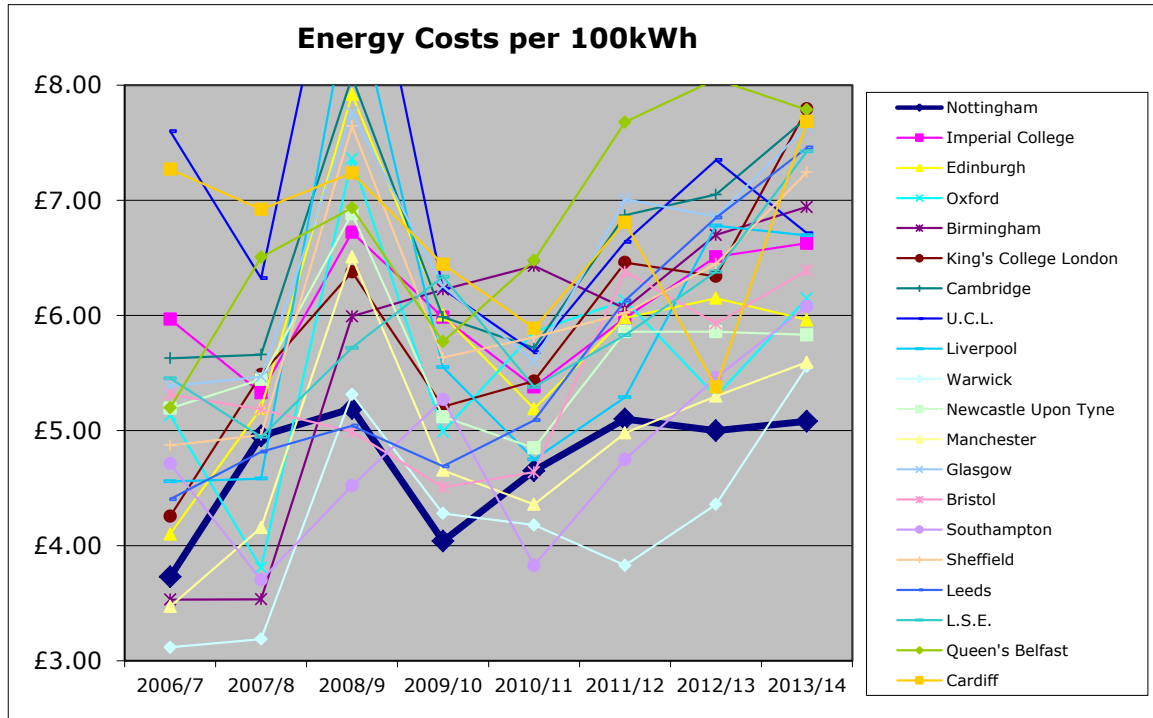


Figure 1.K.1 Graph of Russell Group Energy Costs per 100kWh.

The graph above indicates that our energy prices are the lowest within the Russell Group, and our costs per square metre are the third lowest.

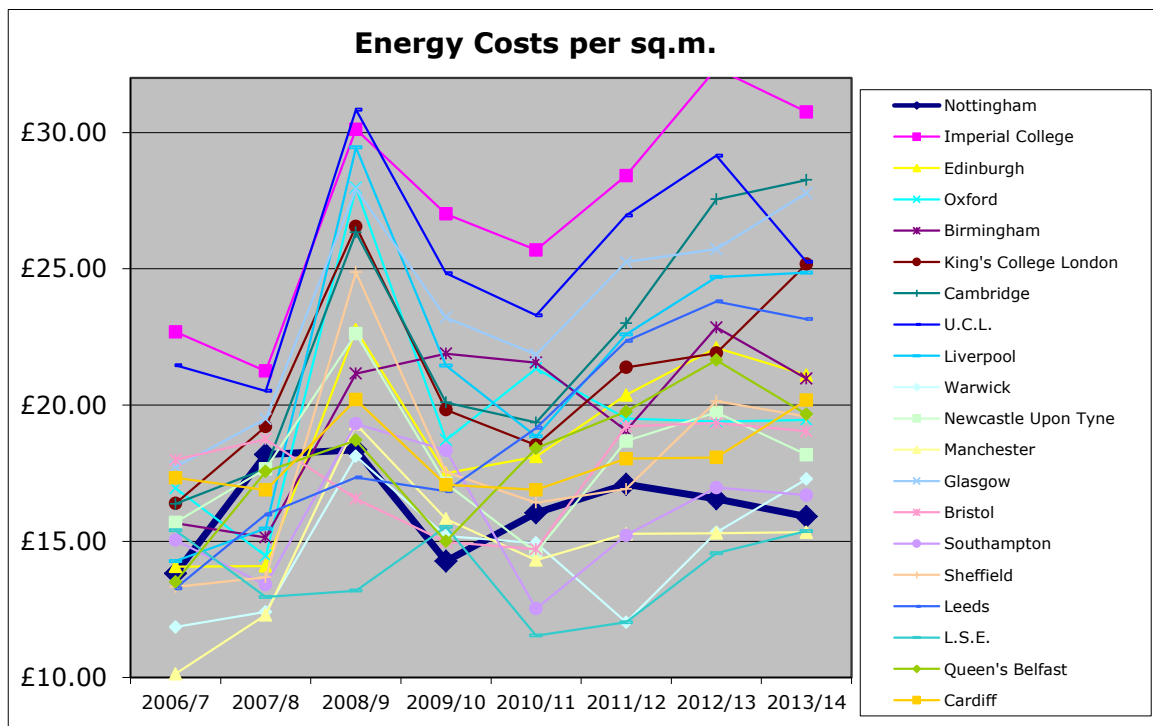


Figure 1.K.2 Graph of Russell Group Energy Costs square metre

1.L – Energy Efficiency Comparison to Russell Group Universities – 2013/14

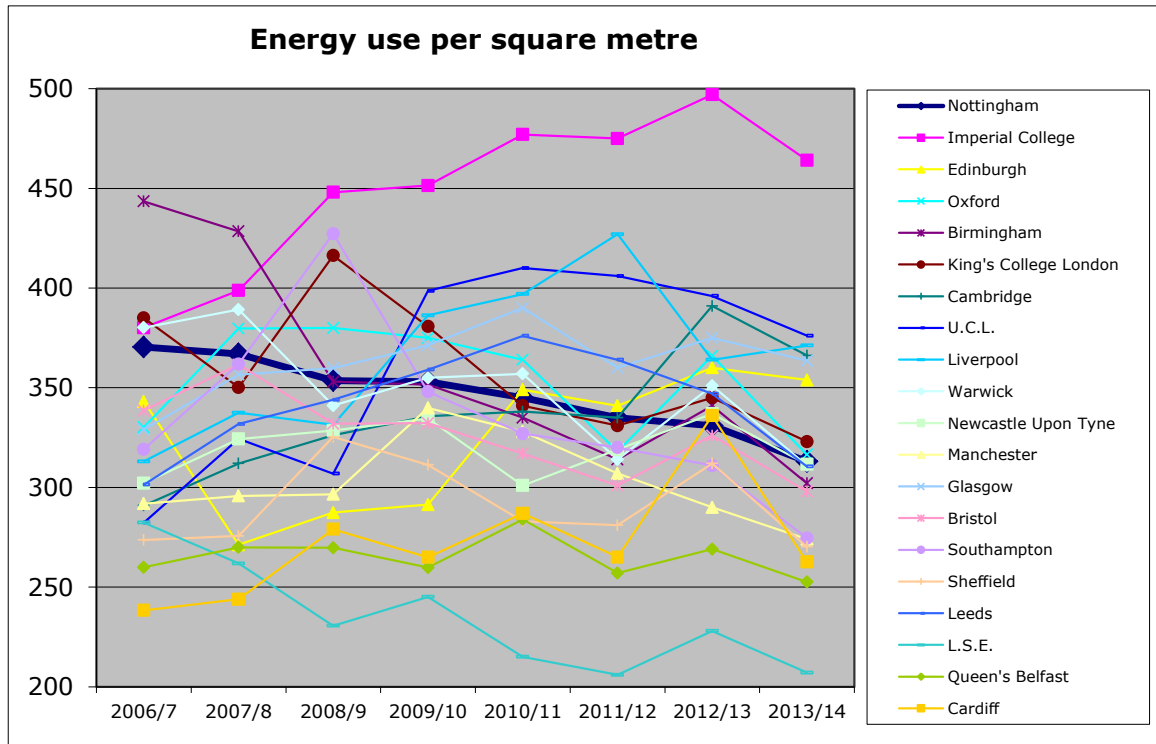


Figure 1.L.1 Graph of Russell Group Energy use per square metre.

The graphs on this page indicate that Nottingham's energy consumption per square metre and energy use per student are better than average within the Russell Group.

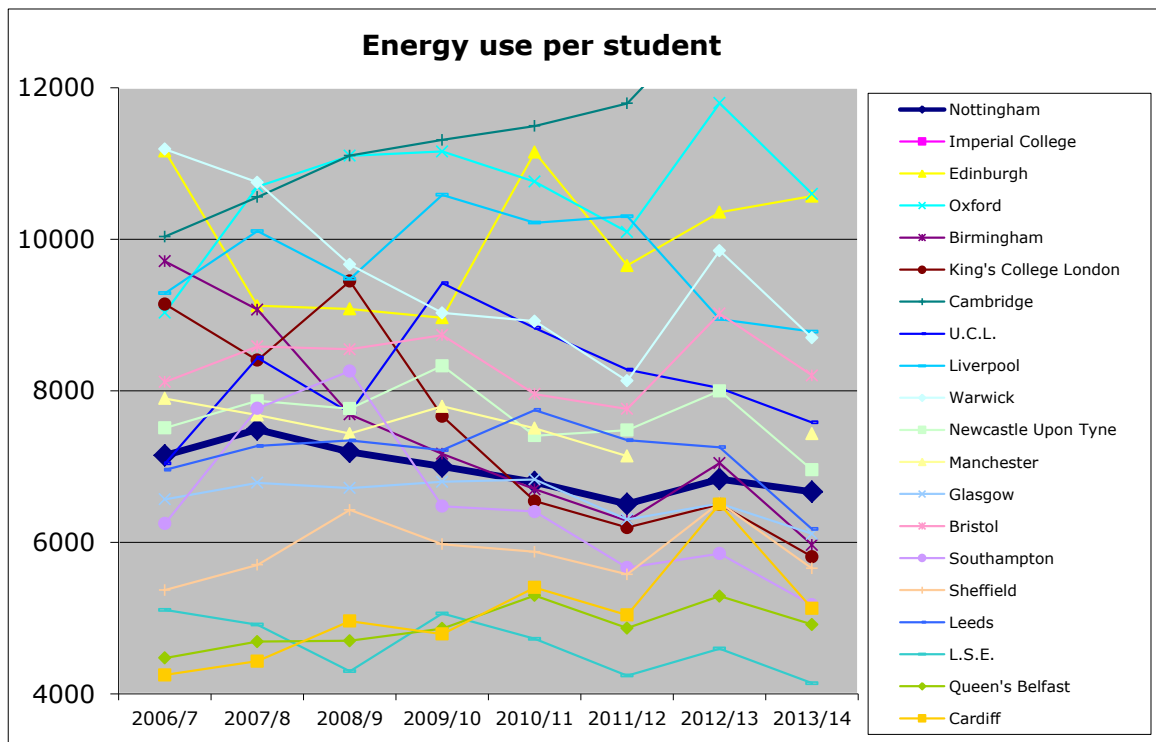


Figure 1.L.1 Graph of Russell Group Energy use per student (note Imperial is off the top of the scale at around 16,000kWh/student).

Section 2 – Electricity, Gas and Water data

2.A - Electricity Consumption

Electricity consumption was up 0.5% this year, roughly in line with the increase in floor area. The largest increases were seen at the Jubilee Campus, where activity is still increasing in some of the new buildings, and the Medical School, where additional electric chillers have been installed to reduce reliance on the elderly steam-fired absorption chillers.

Overall, our electricity consumption is largely stable, rising only 3.3% in the last five years (from 79,527MWh in 2009/10). We will however have to continue to make significant savings if we are to absorb the next phase of new buildings planned in the next few years without seeing overall electrical consumption rise significantly.

Electricity Consumption	MWh	MWh	MWh	Change
	2012/13	2013/14	2014/15	'13/14 to '14/15
University Park	46,022	46,041	46,102	0.1%
Sutton Bonington	13,277	13,280	13,251	-0.2%
Jubilee Campus	7,605	8,118	8,316	2.4%
Others	4,537	4,640	4,480	-3.4%
Medical School	9,457	9,624	9,994	3.8%
Total	80,898	81,704	82,143	0.5%

Figure 2.A.1 Table of electricity usage for the last 3 years split by campus.

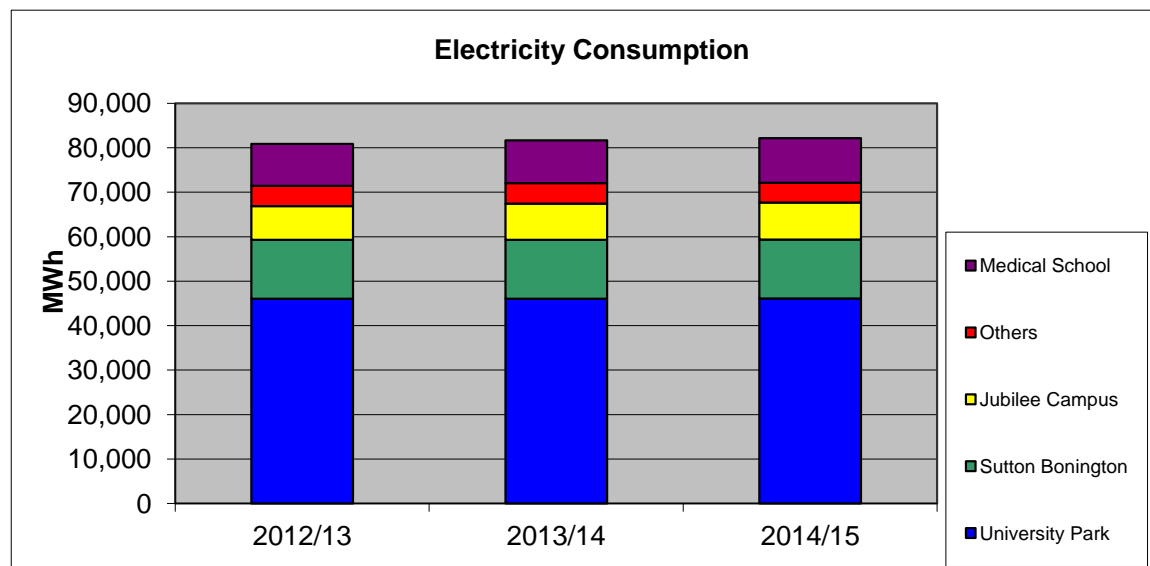


Figure 2.A.2 Graph of electricity usage for the last 3 years split by campus.

See Appendix A for a detailed breakdown of consumption on an account by account basis.

2.B - Electricity Costs

Electricity prices for large annual contracts reduced from around £52/MWh in August 2014 to about £44/MWh by July 2015. The University continued with the flexible purchasing policy first adopted in October 2005. This allowed us to make savings of £530k by not locking in at higher prices at the start of the period.

We are currently in the second year of a three-year framework contract with GDF SuezEnergyUK for the larger sites. Fixed costs (the non-energy portion of the bill) continue to rise, with the charge to pay for the feed in tariff now standing at 0.596p/kWh, or £490,000 in total per annum. The Renewables Obligation charge has risen to 1.29p/kWh or £1.06million in total. Both of these charges were negligible four years ago.

The University's 'sub-100kW' sites (representing 36 smaller properties, such as the sports grounds) was tendered back in January 2014, and the contract was won by Southern Electric for two years, with prices increasing by around 15%. Day kWh typically increased from 9.56p/kWh to 11.09p/kWh.

Electricity Costs				Change
	2012/13	2013/14	2014/15	'13/14 to '14/15
University Park	£ 3,495,825	£ 3,571,109	£ 3,679,990	3%
Sutton Bonington	£ 1,024,801	£ 1,045,379	£ 1,075,835	3%
Jubilee Campus	£ 611,983	£ 665,583	£ 692,261	4%
Others	£ 333,025	£ 374,386	£ 378,596	1%
Medical School	£ 604,800	£ 651,000	£ 650,000	0%
Total	£ 6,070,434	£ 6,307,457	£ 6,476,682	3%

Figure 2.B.1 Table of net electricity costs (excluding taxes) for the last 3 years split by campus.

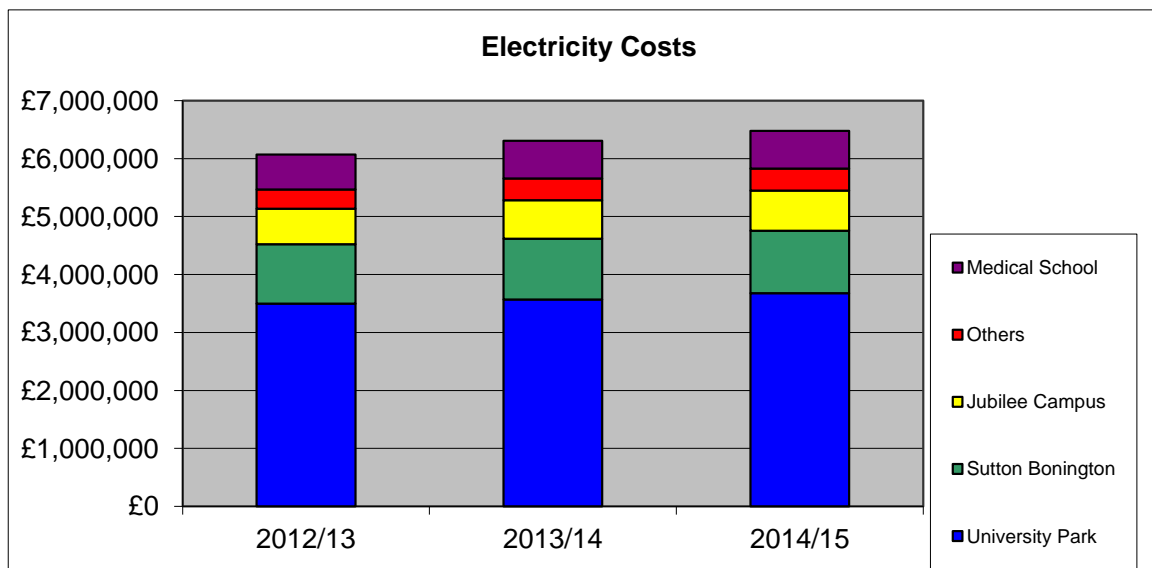


Figure 2.B.2 Graph of net electricity costs for the last 3 years split by campus.

2.C - Fossil Fuel Consumption

Consumption of fossil fuels increased by just over 4% year on year. This was actually a good performance, as the considerably colder weather would have predicted an increase of 9% if all other factors had remained equal (see section 3.A).

Of particular note is the relatively good performance of the Medical School. Inward investment has been targeted at this building and is beginning to show results, as the year-on-year reductions have begun to be seen in the last four months of the financial year.

Fossil Fuel Consumption	MWh	MWh	MWh	Change
	2012/13	2013/14	2014/15	'13/14 to '14/15
University Park	67,034	56,918	59,566	4.7%
Sutton Bonington	20,138	17,924	19,043	6.2%
Jubilee Campus	9,710	8,046	8,601	6.9%
Others	9,663	7,780	8,354	7.4%
Medical School (Steam)	26,872	25,363	25,295	-0.3%
Total	133,417	116,032	120,858	4.2%

Figure 2.C.1 Table of fossil fuel usage for the last 3 years split by campus.

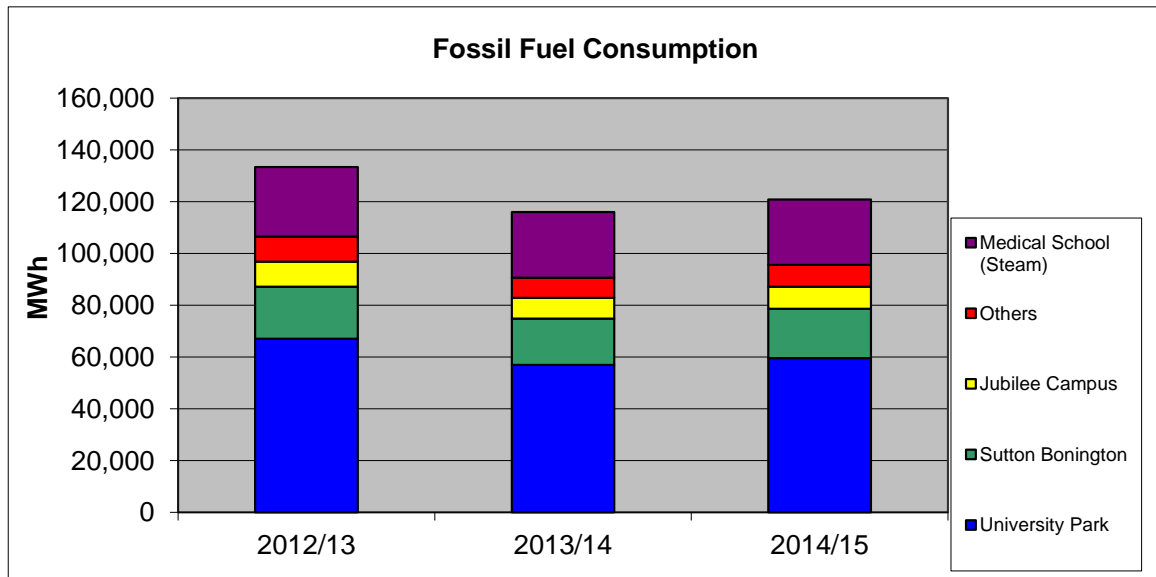


Figure 2.C.2 Graph of fossil fuel usage for the last 3 years split by campus.

See Appendix B for additional information showing a detailed breakdown of consumption on each account.

2.D - Fossil Fuel Costs

Significant reductions in gas prices were seen over the year, with annual contract prices dropping from around 60 pence/therm in August 2014 to 45 pence/therm by July 2015. Our policy of using 'flexible' energy contracts, adopted in October 2005 allowed us to take advantage of the falling market and secured savings of £436k relative to fixed prices that could have been taken at time of contract renewal.

GdFSuezUK were our gas supplier, in the second year of a three-year framework contract.

Costs at the Medical School were also affected by the reducing world gas price and for the first time in recent years we saw a reduction there as well, with the price decreasing by 35% from 5.30p/kWh to 3.42p/kWh.

Fossil Fuel Costs				Change
	2012/13	2013/14	2014/15	'13/14 to '14/15
University Park	£ 1,803,024	£ 1,483,859	£ 1,259,135	-15%
Sutton Bonington	£ 551,936	£ 469,169	£ 405,206	-14%
Jubilee Campus	£ 276,323	£ 224,643	£ 197,220	-12%
Others	£ 285,090	£ 217,531	£ 188,306	-13%
Medical School (Steam)	£ 1,160,700	£ 1,343,000	£ 865,000	-36%
Total	£ 4,077,072	£ 3,738,202	£ 2,914,868	-22%

Figure 2.D.1 Table of net fossil fuel costs (excluding VAT and CCL) for the last 3 years split by campus.

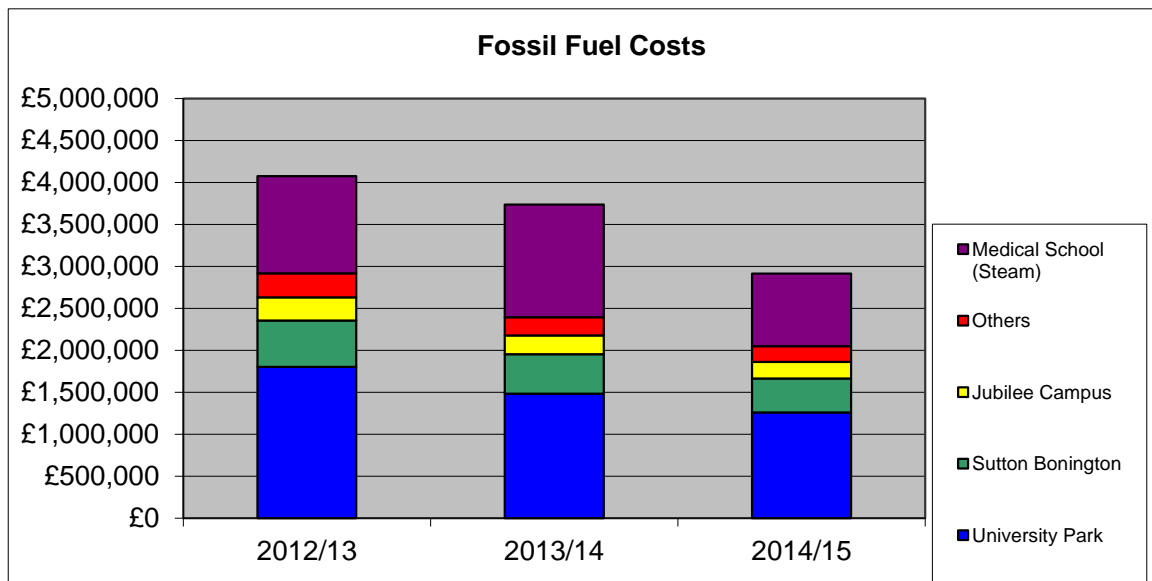


Figure 2.D.2 Graph of net fossil fuel costs for the last 3 years split by campus.

2.E - Water Consumption

Water consumption increased by 1% to 861,016 cubic metres. Despite ongoing work involving sub-metering and mains replacement, usage at Sutton Bonington increased significantly. Work is continuing to determine whether this usage is genuine or down to leakage. Savings of over 40,000m³ were achieved at University Park, which largely offset the increases at Sutton Bonington.

Water Consumption	cubic m.	cubic m.	cubic m.	Change
	2012/13	2013/14	2014/15	'13/14 to '14/15
University Park	539,502	543,286	499,793	-8%
Sutton Bonington	138,312	153,525	208,402	36%
Jubilee Campus	78,425	87,061	88,593	2%
Others	19,290	20,150	20,329	1%
Medical School	48,175	47,100	43,900	-7%
Total	823,703	851,121	861,016	1%

Figure 2.E.1 Table of water usage for the last 3 years split by campus.

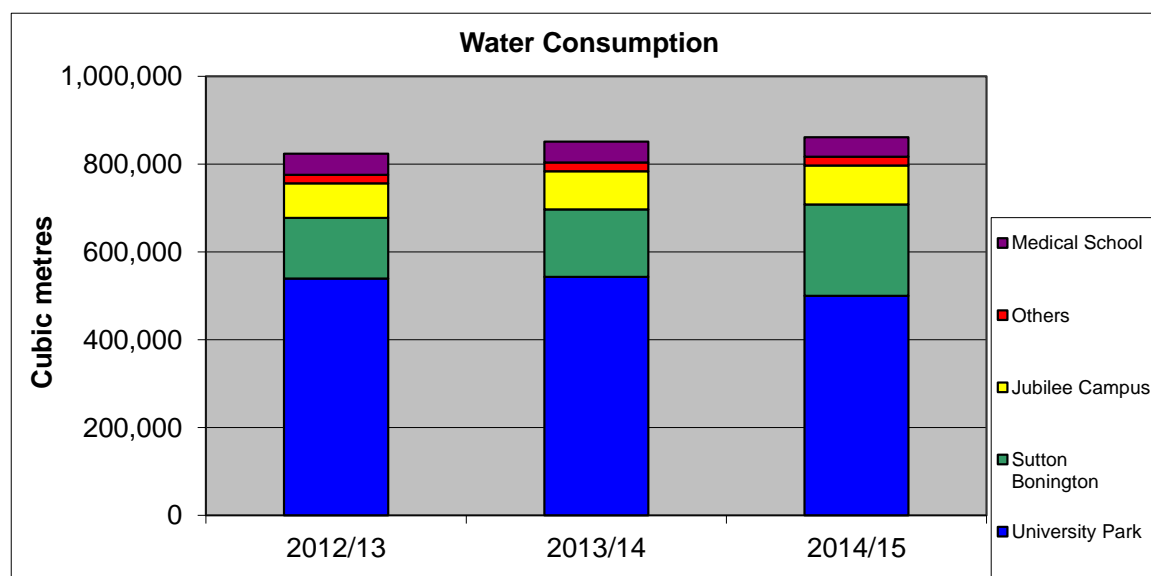


Figure 2.E.2 Graph of water usage for the last 3 years split by campus.

See Appendix C for a detailed breakdown of consumption on an account by account basis.

2.F - Water Costs

Severn Trent Water's annual price rises occur in April of each year, and in 2014 averaged less than 5% for the second year running. However, from April 2015 most prices were revised down, reducing pressure on costs for the final four months of the financial year. Prices are presumably starting to moderate in advance of the de-regulation of the water industry planned for 2017. This will potentially allow large customers such as the University to approach alternative suppliers.

The price of water supplied decreased by 3.9% in April 2015, down from 102.53 p/m³ to 98.57p/m³ in summer for large sites such as University Park. The winter rate for large sites was down by 4%, from 54.93/m³ to 52.81 p/m³. Rates for used water at large sites were down by 7.7%, from 95.11p/m³ to 88.35 p/m³. Charges for the surface water drainage element, which is based on site area, were up by 4%, for example up from £118,608 per annum to £123,342 at University Park.

Water Costs				Change
	2012/13	2013/14	2014/15	'13/14 to '14/15
University Park	£ 1,051,472	£ 940,781	£ 926,692	-1%
Sutton Bonington	£ 242,369	£ 251,132	£ 342,875	37%
Jubilee Campus	£ 206,320	£ 241,124	£ 243,553	1%
Others	£ 76,773	£ 80,709	£ 84,242	4%
Medical School	£ 103,200	£ 104,000	£ 94,500	-9%
Total	£ 1,680,134	£ 1,617,747	£ 1,691,861	5%

Figure 2.F.1 Table of water costs for the last 3 years split by campus.

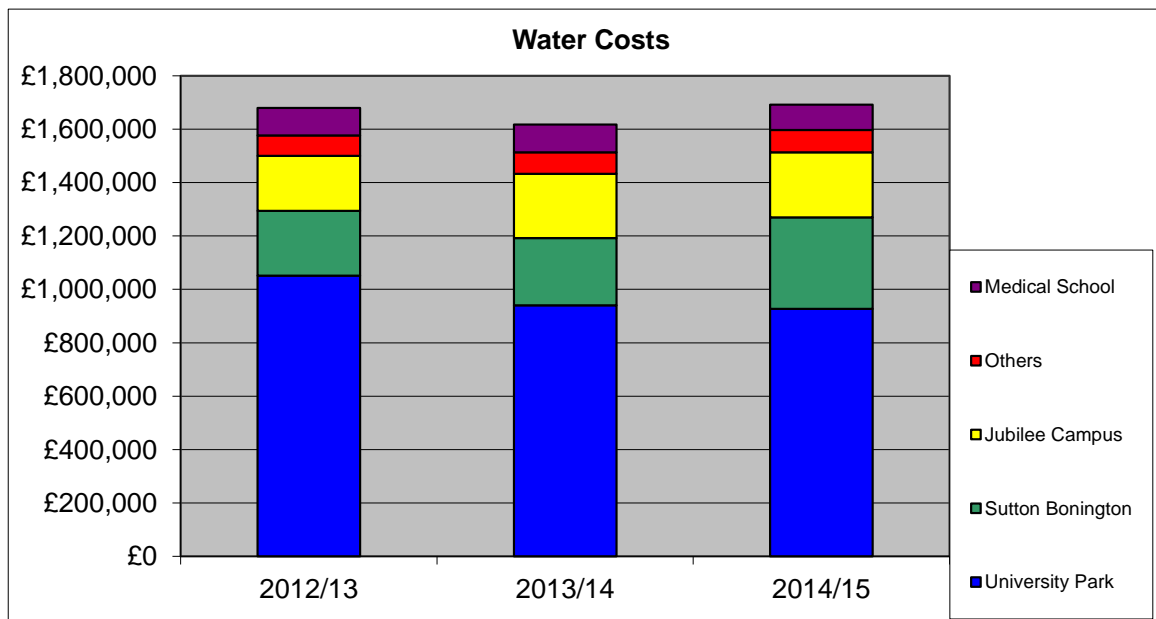


Figure 2.F.2 Graph of water costs for the last 3 years split by campus.

Section 3 – Environmental Considerations

3.A - Weather Data – Degree Days

The pattern of alternating warm and cool years continued with 2014/15 being markedly cooler than 2013/14. Although there were few really cold spells in the winter, every month after November was consistently cooler than the year before, resulting in a theoretical need for gas usage to be 9% higher to maintain temperatures.

Degree days are determined by comparing the mean daily temperature to a set temperature, in this case 15.5 Celsius. For instance, a day where the outside temperature averaged 5.0C would be counted as 10.5 degree days. The values are summated over a calendar month and the total provides a reasonably accurate guide as to the relative heating load that should be required. For the purposes of this report, 75% of the change in degree days has been used, as production of domestic hot water typically accounts for about 25% of usage.

2014/15	Deg. Days 20 Yr Avg	Deg. Days 2012/13	Deg. Days 2013/14	Deg. Days 2014/15	'13/14to'14/15 Change
Aug	34	23	21	46	119.0%
Sep	74	95	80	49	-38.8%
Oct	159	190	107	104	-2.8%
Nov	266	267	276	219	-20.7%
Dec	339	332	278	322	15.8%
Jan	353	369	307	343	11.7%
Feb	304	353	261	324	24.1%
Mar	279	412	248	285	14.9%
Apr	212	238	158	186	17.7%
May	134	154	110	145	31.8%
Jun	70	70	43	70	62.8%
Jul	34	15	18	38	111.1%
Total	2,258	2,518	1,907	2,131	11.7%
			Weather modifier (75%)		8.8%

Figure 3.A.1 Table showing last 3 years monthly degree days and average degree days

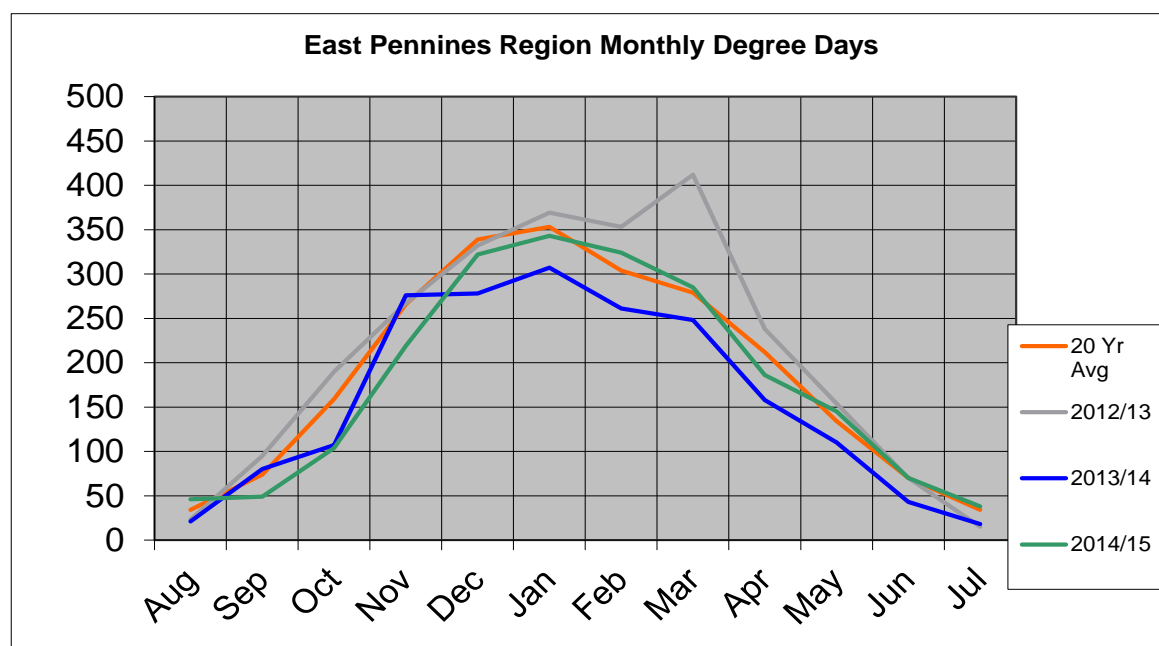


Figure 3.A.2 Graph showing last three years monthly degree days and average degree days

3.B – Changes since Base Year (2009/10)

The table below shows that new buildings constructed since 2009/10 account for 8.9% of our energy usage.

	Units	University Total '14/15	New Buildings	% due to new build
2.A Electricity Consumption	MWh	82,143	8,633	11.7%
2.C Fossil Fuel Consumption	MWh	120,858	7,945	7.0%
1.E Energy Use Total	MWh	203,001	16,578	8.9%
2.E Water Consumption	cu.m.	861,016	40,378	4.9%
1.A Energy & Water Costs	£	£11,083,411	£412,762	3.9%
1.G Floor Area	m ²	633,307	68,065	12.0%

Figure 3.B.1 Table showing effect of new buildings on key parameters.

A full breakdown of energy consumption in new buildings on a building-by-building basis is shown on the next page in Appendix 4A.

3.C University Renewable Energy Generation

Building	Type	Annual Production (kWh)
Dearing	PV	7,570
Business Sch North	PV	13,842
Computer Sciences	PV	6,400
Derby Hall	PV	52,383
Lincoln Hall	PV	52,036
Si Yuan Chinese Studies	PV	8,909
Aerospace Technology	PV	11,471
Environmental Education Centre	PV	10,500
Sustainable Research Building	PV	7,500
Veterinary School	PV	128,816
Total		299,427
Si Yuan Chinese Studies	Solar thermal	2,200
Geospatial	Biomass	54,730
BioEnergy	Biomass	86,990
Total		143,920

Figure 3.B.2 Table showing University renewable energy generation.

Note that the biomass production is included in the rest of the report as the fuel is ordered in from outside; solar generation is effectively hidden from the rest of the report as it takes place within the relevant buildings. A true figure for energy used in buildings should add back in the solar PV and solar thermal figure.

3.D – Comparison with Overseas Campuses

It appears that the overseas campuses have markedly different footprints to the UK; reflecting their unique characteristics. Data has been provided by Estates Office staff at the campuses and will now be monitored going forwards to determine trends.

	UK	China	Malaysia
Floor Area (m ²)	633,307	66,487	35,127
Electricity (MWh)	82,143	5,100	12,215
Gas (MWh)	120,858	0	0
Total Energy (MWh)	203,001	5,100	12,215
Water (m ³)	861,016	71,005	129,295

Figure 3.D.1 Table comparing UK energy and water usage with the overseas campuses.

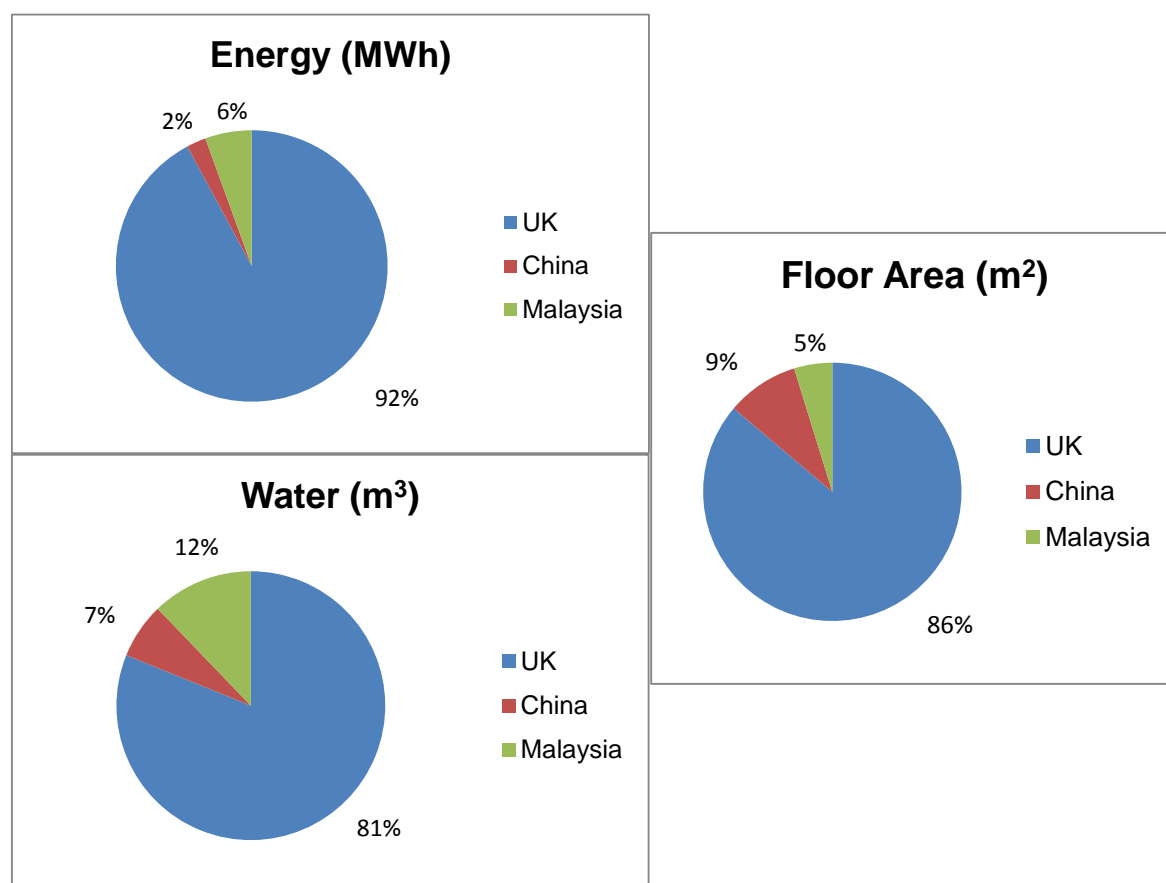


Figure 3.D.2 Graphs comparing Energy, water and floor area on University of Nottingham Campuses.

Energy and Water Efficiency

	UK	China	Malaysia
Electricity (kWh)/m ²	130	77	348
Water (m ³)/m ²	1.36	1.07	3.68

Figure 3.D.3 Table showing overseas campuses energy and water usage per square metre.

Section 4 – Appendices

4.A - Appendix A – Buildings constructed since 2009/10

New Sites		2014/15	2014/15	2014/15	2014/15	2014/15	2014/15	Floor Area	
Main Campus		Elec kWh	Gas kWh	Water m3	Elec CO2	Gas CO2	Cost £		
	Engineering Science Learning Centri	1661	437,814	671,500	849	235	124	£51,430	3,511
	Humanities	1671	447,141	15,798	917	240	3	£38,805	4,303
(2)	Orchard Hotel	1681	1,385,954	1,402,163	15,737	745	259	£172,433	9,509
	Mathematical Sciences	1561	392,245	662,150	1,410	211	122	£48,651	4,674
	New eco-houses		50,000	9,123	200	27	2	£4,974	526
	Totals	2,713,154	2,760,734	19,113	1,458	511	£316,292	22,523	
New Sites		2014/15	2014/15	2014/15	2014/15	2014/15	2014/15	Floor Area	
Sutton Bonington		Elec kWh	Gas kWh	Water m3	Elec CO2	Gas CO2	Cost £		
	Bio-energy and Brewing Sciences	5781	657,118	733,971	3,427	353	136	£74,775	3,493
	Bio-energy BIOMASS	5781		86,990	0		3	£4,000	0
	Gateway Building	5771	900,488	497,536	1,508	484	92	£87,631	3,253
	Gustafson Glasshouse		68,639	534,125	400	37	99	£17,840	400
	Future Crop Glasshouses	5445	120,892	199,540	400	65	37	£15,663	312
	The Barn	5075	278,560	181,600	743	150	34		3,797
	Totals	2,025,697	2,233,762	6,478	1,089	400	£199,909	11,255	
New Sites		2014/15	2014/15	2014/15	2014/15	2014/15	2014/15	Floor Area	
Jubilee Campus		Elec kWh	Gas kWh	Water m3	Elec CO2	Gas CO2	Cost £		
(1)	6 Triumph Road	7405	69,498	46,259	363	37	9	£8,603	324
(1)	9 Triumph Road	7400	78,069	0	1,339	42	0	£18,889	399
(1)	Institute of Mental Health	7370	256,057	326,345	870	138	60	£29,817	3,074
	Yang Fujia (International House)	7320	402,438	242,087	1,982	216	45	£36,395	3,400
	Starbuck's Café	7305	83,379	26,586	90	45	5	£7,747	151
	The Amenities Building	7330	420,000	322,837	2,518	226	60	£47,290	2,365
	Nottingham Geospatial Bulding	7350	335,363	77,303	1,210	180	14	£31,669	2,944
	Geospatial BIOMASS	7350		54,730	0		2	£2,800	0
(1)	Sir Colin Campbell Building	7340	700,000	370,024	1,216	376	68	£66,927	4,534
	Energy Technologies Building	7360	663,680	427,895	2,895	357	79	£68,944	3,177
(1)	Romax Building	7390	330,000	323,396	460	177	60	£34,935	2,950
	Aerospace Technology Centre	7380	155,665	187,095	168	84	35	£17,931	1,934
	Si Yuan Centre for Chinese Studies	7410	122,775	52,394	100	66	10	£11,771	2,078
	Totals	3,616,924	2,456,951	13,211	1,944	446	£383,719	27,330	
New Sites		2014/15	2014/15	2014/15	2014/15	2014/15	2014/15	Floor Area	
Others		Elec kWh	Gas kWh	Water m3	Elec CO2	Gas CO2	Cost £		
	Clinical Sciences City Hosp Ph2	3325	85,194	88,644	151	46	16	£7,339	2,000
	Derby School of Nursing	3571	94,906	270,000	409	51	50	£10,100	1,996
	522 Derby Road	7420	21,437	-2,459	393	12	0	£928	950
	Unit 4 Easter Park	6931	0	60,998	223	0	11	£4,360	1,188
	Vaughan Parry Williams Pav.	6314	38,224	76,613	400	21	14	£6,316	823
	Riverside Grove Farm Sports	6122	37,530	0	0	20	0	£3,031	0
	Totals	277,291	493,796	1,576	149	91	£29,043	6,957	
New Sites		2014/15	2014/15	2014/15	2014/15	2014/15	2014/15	Floor Area	
Main Campus		Elec kWh	Gas kWh	Water m3	Elec CO2	Gas CO2	Cost £		
		2,713,154	2,760,734	19,113	1,458	511	316,292	22,523	
	Sutton Bonington	2,025,697	2,233,762	6,478	1,089	400	199,909	11,255	
	Jubilee Campus	3,616,924	2,456,951	13,211	1,944	446	383,719	27,330	
	Others	277,291	493,796	1,576	149	91	29,043	6,957	
	Totals	8,633,066	7,945,243	40,378	4,640	1,449	£412,762	68,065	

Note that some of the buildings listed above have not yet been operational for a full year.

On these data tables, the following notes apply:-

- (1) University of Nottingham Innovation Park assets
- (2) East Midland Conference Centre Ltd assets

4.B - Appendix B – Electricity Data

Electricity Invoices		2014/15	2013/14	% change	2014/15	2013/14	% change	
Main Campus		kWh	kWh	kWh	£	£	£	
Main Campus Invoices	1000	46,076,439	46,015,070	0%	£3,676,849	£3,568,309	3%	
Lenton Lodge	2251	16,318	10,000	63%	£1,745	£1,000	75%	Jul estd
Lenton Eaves (UNSSC) (2)	1461	4,000	4,000	0%	£600	£500	20%	Jul estd
Lenton Eaves (UNSSC) (1)	1461	3,804	10,000	-62%	£546	£1,000	-45%	Jul estd
Redcourt Lodge	2222	1,000	2,000	-50%	£250	£300	-17%	Jul estd
(2) East Midlands Conference Centre	1481	1,375,113	1,394,547	-1%				Inc. in 'Main Campus HV'
(2) Orchard Hotel	1681	1,385,954	1,221,826	13%				Inc. in 'Main Campus HV'
(2) Conference Centre Cottage	1482	7,894	5,400	46%				Inc. in 'Main Campus HV'
Total of 5 accounts	Totals	46,101,561	46,041,070	0%	£3,679,990	£3,571,109	3%	
Electricity Invoices		2014/15	2013/14	% change	2014/15	2013/14	% change	
Sutton Bonington		kWh	kWh	kWh	£	£	£	
Sutton Bonington Campus	6800	12,572,504	12,561,046	0%	1,004,081	977,085	3%	
New Dairy	6500	560,000	602,339	-7%	57,000	55,041	4%	Jun & Jul estd
Melton Lane Building A	5433	26,000	27,823	-7%	2,750	2,650	4%	Jun & Jul estd
St.Michael's House (Flats 1-5)	6841	25,385	23,125	10%	2,866	2,382	20%	
45 College Road	6815	12,000	12,680	-5%	1,300	1,350	-4%	Jul Estd
Bunny Park Farm	6860	10,900	10,984	-1%	1,190	1,195	0%	Jun & Jul estd
St.Michael's Flats Nos 8&9	6843	7,731	8,335	-7%	1,201	1,137	6%	
St.Michael's Flats Nos 6&7	6842	6,800	7,019	-3%	1,050	1,013	4%	Jul Estd
Eviton House (68 College Road)	5891	6,275	7,800	-20%	740	732	1%	Jul Estd
St.Michael's Close (Flats 10-15)	6840	5,300	5,610	-6%	780	744	5%	Jun & Jul estd
24 College Road	6805	4,700	4,400	7%	640	550	16%	Jul Estd
Dairy Herdsman's House	6500	4,300	4,800	-10%	584	550	6%	Jul Estd
50 College Road	6819	4,296	350	1128%	614	150	309%	Jul Estd
44 College Road	6814	3,156	3,100	2%	481	400	20%	Jul Estd
40 College Road	6811	1,945	950	105%	292	170	72%	Jul Estd
Manor Farm Pump House Kingst	6910	0	0	-	121	114	6%	Jun & Jul estd
Manor Farm Soar Irrigation Pump	6910	0	0	-	143	115	24%	
Total of 19 accounts	Totals	13,251,292	13,280,362	0%	£1,075,835	£1,045,379	3%	
Electricity Invoices		2014/15	2013/14	% change	2014/15	2013/14	% change	
Jubilee Campus		kWh	kWh	kWh	£	£	£	
Jubilee Campus Main HV Supply	7000	5,787,487	5,976,858	-3%	£470,238	£472,512	0%	
New HV Supply 2012, E. of Tri.Rd	7000	1,344,398	1,062,627	27%	£109,640	£92,739	18%	
Newark & Southwell Halls	7000	643,308	617,191	4%	£56,676	£53,021	7%	
Jubilee Sports Centre + Starbucks	7301	385,032	324,919	19%	£36,559	£30,352	20%	
(1) 9 Triumph Road (ex Dairy Crest Site)		78,069	66,724	17%	£10,668	£9,881	8%	
(1) 6 Triumph Rd (ex Dairy Crest, opp 9 Triu		69,498	56,178	24%	£7,480	£5,578	34%	
Charnock Ave Sports Pavilion	7201	8,000	14,000	-43%	£1,000	£1,500	-33%	Jul Estd
(1) Sir Colin Campbell Building	7340	600,000	590,000	2%				Inc. in 'J.C. Main Supply'. Estd
(1) Institute of Mental Health	7370	256,057	251,673	2%				Inc. in 'New supply 2012'
Total of 7 accounts	Totals	8,315,792	8,118,497	2%	£692,261	£665,583	4%	
Electricity Invoices		2014/15	2013/14	% change	2014/15	2013/14	% change	
Others		kWh	kWh	kWh	£	£	£	
King's Meadow Campus	6901	2,044,010	2,130,394	-4%	£161,911	£165,970	-2%	
Derby Medical School	3561	1,174,331	1,269,714	-8%	£96,135	£100,565	-4%	
Clinical Sciences (City Hospital) Ph	3325	1,034,534	1,021,370	1%	£95,504	£87,327	9%	
Clinical Sciences (City Hospital) Ph	3325	85,194	90,555	-6%	£7,865	£7,742	2%	
Highfields Sports Ground	6311	52,233	45,040	16%	£5,742	£4,539	27%	
Riverside New Changing Rooms	6122	37,530	0	-	£5,300	£0	-	
522 Derby Road (ex. Mansells)	7420	21,437	27,131	-21%	£2,538	£2,843	-11%	
Grove Farm - Changing Rooms	6122	16,000	14,600	10%	£1,650	£1,400	18%	Jul Estd
Grove Farm - Old Farmhouse	6121	6,400	4,600	39%	£800	£530	51%	Jul Estd
Boat House	6321	5,500	34,000	-84%	£700	£3,100	-77%	Jul Estd
Grove Farm	6123	3,100	2,800	11%	£450	£370	22%	
Total of 11 accounts	Totals	4,480,270	4,640,204	-3%	£378,596	£374,386	1%	
Electricity Invoices		2014/15	2013/14	% change	2014/15	2013/14	% change	
Medical School		kWh	kWh	kWh	£	£	£	
Medical School		7,899,389	7,566,253	4%	£520,000	£524,000	-1%	Jul Estd
Embedded units (Q.M.C.)		2,095,000	2,058,000	2%	£130,000	£127,000	2%	Jul Estd
Totals	Totals	9,994,389	9,624,253	4%	£650,000	£651,000	0%	

4.C - Appendix C – Fossil Fuel Data

Gas Invoices		2014/15	2013/14	% change	2014/15	2013/14	% change	
Main Campus		kWh	kWh	kWh	£	£	£	
Central Heating Station	1000	24,244,342	22,472,781	8%	£505,518	£580,103	-13%	
Rutland Hall & Sherwood Hall	2191	2,398,730	2,387,361	0%	£50,954	£62,175	-18%	
Cripps Hall	2171	2,281,797	2,094,213	9%	£48,353	£54,781	-12%	
Hugh Stewart Hall	2181	2,094,014	2,113,595	-1%	£44,393	£54,953	-19%	
Derby Hall	2121	1,925,003	1,890,710	2%	£40,785	£49,348	-17%	
Bio-Molecular Sciences Phase 2	1353	1,908,472	1,796,315	6%	£38,124	£45,283	-16%	
Swimming Pool	1571	1,738,178	1,727,639	1%	£37,312	£45,026	-17%	
Bio-Molecular Sciences Phase 1	1353	1,671,199	1,602,486	4%	£35,872	£44,369	-19%	
Lenton & Wortley Hall	2141	1,468,401	1,406,768	4%	£31,313	£36,803	-15%	
(2) Jesse Boot Conference Centre	1481	1,447,085	1,383,123	5%	£30,749	£36,216	-15%	Operated by De Vere
(2) Orchard Hotel	1681	1,402,163	1,620,064	-13%	£29,582	£40,070	-26%	Operated by De Vere
Willoughby Hall	2211	1,390,446	1,250,724	11%	£29,531	£32,667	-10%	
Lincoln Hall	2150	1,367,164	1,357,814	1%	£28,979	£35,500	-18%	
Nightingale Hall	2161	1,131,037	1,150,070	-2%	£24,036	£29,989	-20%	
Science area, MRI, etc.	1271	1,125,101	1,052,234	7%	£24,066	£27,471	-12%	
Florence Boot Hall	2131	1,085,098	1,064,533	2%	£22,995	£27,816	-17%	
Boots Science Building	1581	891,016	735,627	21%	£18,787	£20,130	-7%	
Cavendish Hall	2111	879,682	839,384	5%	£18,765	£21,883	-14%	
Ancaster Hall	2101	835,595	875,155	-5%	£17,769	£22,895	-22%	
Institute of Hearing Research	1401	626,628	600,328	4%	£13,485	£15,730	-14%	
Arts Centre & School of Music	1501	610,409	596,611	2%	£13,018	£15,670	-17%	
Trent Building (part), Highfield Hou	1101	585,367	562,902	4%	£12,339	£14,677	-16%	
D.H.Lawrence Lakeside Pavilion	1631	549,912	506,220	9%	£12,009	£13,538	-11%	
Portland Building Kitchen	1111	509,686	485,173	5%	£11,030	£12,525	-12%	
Lenton Firs - Built Environment	1431	484,634	325,270	49%	£10,203	£8,360	22%	
Wolfson Building	1421	423,585	444,445	-5%	£9,009	£11,642	-23%	
Staff Club Lenton Mount, Hemsley	1181	417,447	419,325	0%	£8,843	£10,968	-19%	
Sports Centre, Main Campus	1221	408,059	439,068	-7%	£8,618	£11,547	-25%	
Innovative Technology Research C	1641	342,656	322,672	6%	£7,630	£8,869	-14%	
Lenton Hurst	2411	288,422	315,046	-8%	£6,132	£8,218	-25%	
Redcourt	2221	276,321	219,291	26%	£5,876	£5,703	3%	
Portland Building new extn.	1111	262,206	222,382	18%	£5,544	£5,832	-5%	
Cripps Health Centre	1231	208,458	265,926	-22%	£4,431	£6,936	-36%	
Lenton Grove (History)	1211	171,725	151,728	13%	£3,609	£3,953	-9%	
Manufacturing Engineering (MMME)	1371	155,019	144,511	7%	£3,261	£3,768	-13%	
Lenton Eaves (UNSSC)	1461	131,883	132,155	0%	£3,339	£3,947	-15%	
Orchards	1161	123,098	135,198	-9%	£2,600	£3,529	-26%	
Rutland Hall Extension	2195	120,282	102,354	18%	£2,587	£2,668	-3%	
Cavendish Hall Extension 1994 (H	2115	113,718	108,737	5%	£2,442	£2,840	-14%	
Lenton Close Annexe (Cripps Hall)	2175	110,268	88,143	25%	£2,338	£2,304	1%	
Lenton Fields (China House)	2163	107,285	78,841	36%	£2,577	£2,501	3%	
Sports Centre, Main Campus	1221	101,696	140,056	-27%	£2,902	£4,405	-34%	
Lincoln Hall Kitchen	2150	99,536	112,620	-12%	£2,111	£2,945	-28%	
Paton House (Built Env.)	1441	98,410	92,851	6%	£2,094	£2,435	-14%	
Cripps Hall Kitchen	2171	92,690	112,526	-18%	£1,993	£2,898	-31%	
Environmental Education Centre (f	1439	90,475	154,641	-41%	£2,582	£4,505	-43%	
Sustainable Research Building	1436	89,767	75,488	19%	£2,340	£2,488	-6%	
Sherwood Hall kitchen	2200	78,990	66,702	18%	£1,685	£1,713	-2%	
Lenton Lodge	2251	67,794	57,227	18%	£1,428	£1,451	-2%	
Warden's House Sherwood Hall	2207	54,809	43,911	25%	£1,163	£1,150	1%	
Rutland Hall kitchen	2191	54,370	72,389	-25%	£1,164	£1,879	-38%	
(2) J.Boot C.C. Annexe (Cottage)	1482	50,832	50,402	1%	£1,076	£1,296	-17%	
Centre for 3D Design	1223	49,938	64,185	-22%	£1,594	£2,044	-22%	
Cavendish Hall kitchen	2111	40,769	41,377	-1%	£882	£1,084	-19%	
Lenton & Wortley Hall kitchen	2141	39,577	69,694	-43%	£849	£1,802	-53%	
Warden's House Rutland Hall	2194	33,520	28,914	16%	£707	£753	-6%	
Former Warden's House, Cavendis	2113	32,492	40,529	-20%	£693	£1,049	-34%	
Paton Cottage (Stables Annx, Patc	1442	32,385	27,183	19%	£692	£696	-1%	
Lenton Firs Lodge West	2241	30,323	34,948	-13%	£641	£917	-30%	
Warden's House Florence Boot Ha	2133	26,672	24,574	9%	£569	£644	-12%	
5A Wortley Hall Close (Eco-House	2296	23,099	34,761	-34%	£729	£1,050	-31%	
1 Nightingale Close (Nigh.Hall War	2321	20,371	18,926	8%	£431	£496	-13%	
Humanities	1671	15,798	31,965	-51%	£892	£1,530	-42%	
Green Close (New Eco-houses)		9,123	8,566	7%	£543	£557	-2%	
Redcourt Lodge	2222	8,047	6,625	21%	£313	£345	-9%	
Sherwood Hall Laundry	2200	7,643	7,829	-2%	£163	£201	-19%	
Warden's House Ancaster Hall	2105	4,868	12,530	-61%	£99	£319	-69%	
Total of 68 accounts	Totals	59,565,581	56,918,346	5%	£1,259,135	£1,483,859	-15%	

4.C - Appendix C – Fossil Fuel Data continued

Gas Invoices	2014/15	2013/14	% change	2014/15	2013/14	% change	
Sutton Bonington	kWh	kWh	kWh	£	£	£	
Main Boilerhouse	6800	8,873,412	8,224,912	8%	£180,631	£207,032	-13%
'Farm' Boilerhouse	6800	3,109,105	2,972,470	5%	£63,480	£74,490	-15%
Plant Sciences	5711	2,047,698	1,878,147	9%	£45,742	£52,977	-14%
Veterinary School	5721	1,925,777	1,893,214	2%	£41,507	£49,630	-16%
Bio-Energy and Brewing Science	5781	733,971	562,939	30%	£14,973	£14,610	2%
Gustafson Glasshouse		534,125	341,950	56%	£12,297	£9,355	31%
Gateway Building (Bio-Sciences)	5771	497,536	430,014	16%	£11,945	£12,928	-8%
Sports Centre SB (New)	5951	258,644	268,830	-4%	£6,560	£8,216	-20%
TCRU Future Crop Glasshouses	5445	199,540	214,296	-7%	£5,114	£6,525	-22%
The Firs (Surgery No.2)	5233	158,407	138,615	14%	£3,257	£3,424	-5%
Eviton House (68 College Road)	5891	118,327	109,139	8%	£3,230	£3,456	-7%
The Elms (Environmental Science)	5161	111,532	151,067	-26%	£3,299	£4,618	-29%
Bio-Energy BIOMASS	5781	86,990	150,000	-42%	£4,000	£7,000	-43%
Food Science Building HWS	5701	54,217	52,199	4%	£1,125	£1,294	-13%
St.Michael's Flats Nos 6&7	6842	43,969	53,441	-18%	£1,128	£1,537	-27%
Bonington Hall Laundry & Gym	5881	38,145	37,941	1%	£804	£947	-15%
Main Building (Sutton Bonington)	5011	35,249	70,929	-50%	£828	£1,668	-50%
Food Hall	5081	32,713	30,148	9%	£682	£747	-9%
St.Michael's House Flat 4	6841	28,759	23,789	21%	£715	£634	13%
St.Michael's House Flat 2	6841	27,670	35,493	-22%	£544	£1,032	-47%
Bonington Hall Warden's House	5842	27,127	31,096	-13%	£580	£771	-25%
St.Michael's House Flat 1	6841	23,121	29,559	-22%	£707	£860	-18%
52 College Road	6820	21,520	20,990	3%	£459	£536	-14%
St.Michael's House Flat 5	6841	17,715	26,093	-32%	£486	£714	-32%
St.Michael's House Flat 3	6841	17,454	16,680	5%	£456	£469	-3%
St.Michael's Flats Nos 8&9	6843	14,847	13,961	6%	£488	£497	-2%
24 College Road	6805	4,142	36,060	-89%	£129	£898	-86%
North Laboratory	5091	856	852	0%	£29	£21	38%
South Laboratory	5051	30	0	-	£9	£0	-
Hathern House, Bon. Hall (4)	5831	0	109,606	-100%	£0	£2,283	-100%
Total of 30 accounts	Totals	19,042,594	17,924,431	6%	£405,206	£469,169	-14%
							Acct closed
Gas Invoices	2014/15	2013/14	% change	2014/15	2013/14	% change	
Jubilee Campus	kWh	kWh	kWh	£	£	£	
Newark Hall	7130	1,218,806	1,156,369	5%	£26,766	£30,904	-13%
Computer Sciences (DCS) & The A	7040	841,861	875,960	-4%	£18,497	£23,679	-22%
The Exchange (CTF)	7030	758,929	662,171	15%	£16,736	£17,601	-5%
Business School South (New)	7080	636,191	630,224	1%	£14,149	£16,810	-16%
Melton Hall	7110	626,638	546,289	15%	£13,729	£14,735	-7%
Southwell Hall	7120	585,970	607,675	-4%	£13,065	£16,313	-20%
Dearing Building (FOE)	7050	503,790	451,911	11%	£11,053	£12,054	-8%
Energy Technologies Building	7360	427,895	438,466	-2%	£9,657	£12,234	-21%
The Atrium Catering	7040	423,437	338,187	25%	£9,134	£9,119	0%
Jubilee Sports Centre	7301	398,173	358,401	11%	£10,616	£10,863	-2%
Business School North (SMF)	7020	392,232	533,217	-26%	£8,711	£14,277	-39%
(1) Sir Colin Campbell Building (Gatew	7340	356,209	131,599	171%	£7,319	£4,375	67%
(1) Institute of Mental Health	7370	326,345	303,860	7%	£7,429	£8,421	-12%
(1) Romax Building	7390	323,396	32,167	-	£7,381	£936	-
The Amenities Building	7330	322,837	348,284	-7%	£8,423	£11,033	-24%
Aerospace Technologies Building	7380	187,095	320,691	-42%	£5,030	£10,444	-52%
The Nottingham Geospatial Buildin	7350	77,303	112,990	-32%	£2,208	£3,332	-34%
Geospatial BIOMASS	7350	54,730	60,000	-9%	£2,800	£3,000	-7%
Si Yuan Centre For Chinese Studie	7410	52,394	74,119	-29%	£1,659	£2,349	-29%
(1) 6 Triumph Rd (ex Dairy Crest, opp 9 Triu	7420	46,259	41,214	12%	£1,335	£1,380	-3%
Starbucks Cafe Jubilee		26,586	22,506	18%	£837	£785	7%
(1) Sir Colin Campbell Building (Gatew	7340	13,815	0	-	£687	£0	-
Total of 19 items	8,600,890	8,046,299	7%	£197,220	£224,643	-12%	
Gas Invoices	2014/15	2013/14	% change	2014/15	2013/14	% change	
Others	kWh	kWh	kWh	£	£	£	
King's Meadow Campus	6901	5,281,033	4,865,073	9%	£114,851	£128,256	-10%
Derby Medical School	3561	1,761,819	1,594,218	11%	£39,619	£45,099	-12%
Clinical Sciences (City Hospital) Ph	3325	782,203	670,000	17%	£16,090	£16,300	-1%
Highfields Sports Ground	6311	160,320	142,229	13%	£3,900	£4,225	-8%
Grove Farm OIL		100,000	200,000	-50%	£5,000	£12,000	-58%
Clinical Sciences (City Hospital) Ph	3325	88,644	84,441	5%	£1,823	£2,050	-11%
Vaughan Parry Williams Pavilion	6314	76,613	124,485	-38%	£2,443	£4,044	-40%
Unit 4, Easter Park	6931	60,998	59,833	2%	£1,852	£2,036	-9%
Boathouse KEROSENE		45,000	45,000	0%	£2,400	£2,600	-8%
522 Derby Road (ex. Mansells)	7420	-2,459	-5,223	-53%	£328	£922	-64%
Total of 12 accounts	8,354,171	7,780,056	7%	£188,306	£217,531	-13%	
Steam Used	2014/15	2013/14	% change	2014/15	2013/14	% change	
Medical School	kWh	kWh	kWh	£	£	£	
Medical School		20,294,557	21,332,751	-5%	£715,000	£1,180,000	-39%
Embedded Units (Q.M.C.)		5,000,000	4,030,000	24%	£150,000	£163,000	-8%
Total	25,294,557	25,362,751	0%	£865,000	£1,343,000	-36%	

4.D - Appendix D – Water Data

Water Invoices		2014/15	2013/14	% change	2014/15	2013/14	% change	
Main Campus		cubic m.	cubic m.	cubic m.	£	£	£	
	Main meter, South entrance	1000	469,985	506,037	-7%	£0	£0	-
(2)	Orchard Hotel	1681	15,737	11,776	34%	£0	£0	-
	Nightingale Hall	2161	4,759	8,336	-43%	£0	£0	-
(2)	JBCC Banqueting Rooms	1481	3,132	2,587	21%	£0	£0	-
	Lenton Grove (History)	1211	1,778	4,852	-63%	£0	£0	-
	Lenton Eaves (UNSSC)	1461	1,572	1,638	-4%	£0	£0	-
(2)	Jesse Boot Conference Centre	1481	983	847	16%	£0	£0	-
	Paton House (Built Env.)	1441	622	695	-11%	£0	£0	-
	Redcourt	2221	396	4,998	-92%	£0	£0	-
	Lenton Hurst	2411	363	770	-53%	£0	£0	-
	Lenton Firs - Built Environment	1431	341	409	-17%	£0	£0	-
	5A Wortley Hall Close (Eco-House)	2296	77	68	13%	£0	£0	-
	Lenton Lodge	2251	50	273	-82%	£0	£0	-
	Water & SWD charges	1000	0	0	-	£505,162	£525,244	-4%
	TE & sewerage charges	1000	0	0	-	£421,530	£415,537	1%
Total of 15 accounts		Totals	499,793	543,286	-8%	£926,692	£940,781	-1%
Water Invoices		2014/15	2013/14	% change	2014/15	2013/14	% change	
Sutton Bonington		cubic m.	cubic m.	cubic m.	£	£	£	
	Landcroft Lane meter	6800	195,947	138,935	41%	£0	£0	-
	College Road meter	6800	10,848	12,251	-11%	£0	£0	-
	St.Michael's House (Flats 1-5)	6841	1,377	1,570	-12%	£3,431	£3,944	-13%
	Bunny Park Farm	6860	230	770	-70%	£400	£1,202	-67%
	Trough, Kegworth Road	6910	0	0	-	£43	£28	50%
	SB water charges	6800	0	0	-	£168,268	£129,113	30%
	SB TE & sewerage charges	6800	0	0	-	£170,734	£116,844	46%
Total of 7 items			208,402	153,525	36%	£342,875	£251,132	37%
Water Invoices		2014/15	2013/14	% change	2014/15	2013/14	% change	
New Campus		cubic m.	cubic m.	cubic m.	£	£	£	
	Jubilee Campus main meter	7000	45,602	46,565	-2%	£0	£0	-
	Newark Hall	7130	14,840	14,970	-1%	£0	£0	-
	Southwell Hall	7120	9,589	10,194	-6%	£0	£0	-
(1)	Jubilee Campus ETB/IMH/ATC/Ror	7000	6,558	3,306	98%	£12,531	£8,236	52%
	Jubilee Sports Centre	7301	3,373	2,244	50%	£0	£0	-
	The Amenities Building	7330	2,518	2,445	3%	£0	£0	-
	Yang Fulia Building (International H	7320	1,982	2,173	-9%	£0	£0	-
(1)	9 Triumph Road (ex Dairy Crest St		1,339	3,094	-57%	£0	£0	-
(1)	Sir Colin Campbell Building (Gatew	7340	1,216	1,306	-7%	£0	£0	-
	The Nottingham Geospatial Buildin	7350	1,210	492	146%	£0	£0	-
(1)	6 Triumph Rd (ex Dairy Crest, opp		363	271	34%	£1,387	£1,140	22%
	Charnock Ave Sports Pavilion	7201	2	1	43%	£41	£32	27%
(1)	9 Triumph Road costs inc SWD		0	0	-	£11,944	£16,000	-25%
	Jubilee Campus costs inc SWD	7000	0	0	-	£217,650	£215,717	1%
Total of 14 items			88,593	87,061	2%	£243,553	£241,124	1%
Water Invoices		2014/15	2013/14	% change	2014/15	2013/14	% change	
Others		cubic m.	cubic m.	cubic m.	£	£	£	
	King's Meadow Campus	6901	10,284	8,460	22%	£50,575	£45,653	11%
	Clinical Sciences (City Hospital) Ph	3325	6,550	5,728	14%	£22,794	£20,600	11%
	Boat House	6321	1,943	2,057	-6%	£4,806	£5,137	-6%
	Highfields Sports Ground	6311	653	929	-30%	£1,658	£2,352	-30%
	522 Derby Road (ex. Mansells)	7420	393	0	-	£1,003	£0	-13/14 actual was 387m3
	Unit 4, Easter Park	6931	233	220	6%	£2,642	£2,500	6%
	Clinical Sciences (City Hospital) Ph	3325	151	93	62%	£525	£330	59%
	Grove Farm - Changing Rooms	6122	122	2,663	-95%	£238	£4,137	-94%
			20,329	20,150	1%	£84,242	£80,710	4%
Water Recharges		2014/15	2013/14	% change	2014/15	2013/14	% change	
Medical School		cubic m.	cubic m.	cubic m.	£	£	£	
	Medical School		41,000	44,000	-7%	£68,000	£79,000	-14%
	Embedded Units		2,900	3,100	-6%	£26,500	£25,000	6%
			43,900	47,100	-7%	£94,500	£104,000	-9%



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