**CARBON, ENERGY AND WATER PERFORMANCE REPORT (ESAG/16/02/02) August 2016 David Fairhurst**

**Performance**

By the end of due June carbon dioxide equivalent (CO2e) emissions[[1]](#footnote-1) had reduced by 37% compared to the baseline year of 2006/2007. It is predicted that the target set for this year to reduce emissions by 37% will be achieved. We remain on course to achieve a reduction of 40% by the end of August 2017.

Compared to last financial year consumption of gas and electricity has increased marginally and water decreased by around 8%. A reduction in the carbon intensity of grid electricity of nearly 10% has contributed to the reduction in emissions. No change in the carbon intensity of the grid would have resulted in a reduction of 33.6% from the baseline.

Utility consumption across the sites has varied with a notable increase in electricity consumption at Sighthill of 8%. A 60% reduction in gas use across all campus buildings was achieved in June this year compared to June 2015 due to an improved heating switch off procedure.

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **CHANGES ON FINANCIAL YEAR 06/07 TO END OF JUNE 2016** | | | | | | | | | |  |
| **(%)** | **(positive = increase in consumption, negative = decrease in consumption)** | | | | | | | | |  | | |  |  |
|  | **Electricity (kWh)** |  | **Gas (kWh)** |  | **Water (m3)** |  | **CO2e (tonnes)** |  | **Weather (DD)** |  | | |  |  |
|  |  |  |  |  |  |  |  |  |  |  | | |  |  |
| ***ALL SITES*** | -23 |  | -47 |  | --55 |  | -37.9 |  | 9.3 |  | | |  |  |
| ***MERCHISTON*** | -32 |  | -44 |  | -52 |  | -37 |  |  |  | | |  |  |
| ***CRAIGLOCKHART*** | 1.9 |  | -53 |  | -33 |  | -22 |  |  |  | | |  |  |
| ***SIGHTHILL*** | 131 |  | 13 |  | 24 |  | 48 |  |  |  | | |  |  |
|  |  |  |  |  |  |  |  |  |  |  | | |
|  | **CHANGES ON FINANCIAL YEAR 14/15 TO END OF JUNE 2016** | | | | | | | | | |  |
| **(%)** |  |  |  |  |  |  |  |  |  |  | | |  |  |
| ***ALL SITES*** | 1.0 |  | 2.6 |  | -8.3 |  | -5.4 |  | 1.1 |  | | |  |  |
| ***MERCHISTON*** | -3.8 |  | 1.8 |  | 7.9 |  | -2.1 |  |  |  | | |  |  |
| ***CRAIGLOCKHART*** | 1.9 |  | 7.4 |  | -30.4 |  | 2.9 |  |  |  | | |  |  |
| ***SIGHTHILL*** | 8 |  | -4.3 |  | -4.6 |  | 8.4 |  |  |  | | |  |  |
|  |  |  |  |  |  |  |  |  |  |  | | |  |  |

**Projects**

The following projects have been implemented or are planned to further reduce energy consumption.

* LED conversions – Merchiston and Bainfield
* Fridge and freeze controls – All campuses and Bainfield
* Sighthill and Bainfield – Heating, CHP and hot water controls
* Merchiston – Hot water provision
* Sighthill – High performance toilet (very low water use)

1. Emissions resulting from the consumption of gas, electricity and water from non-residential sites. Emissions from waste and transport are not included in these figures. [↑](#footnote-ref-1)