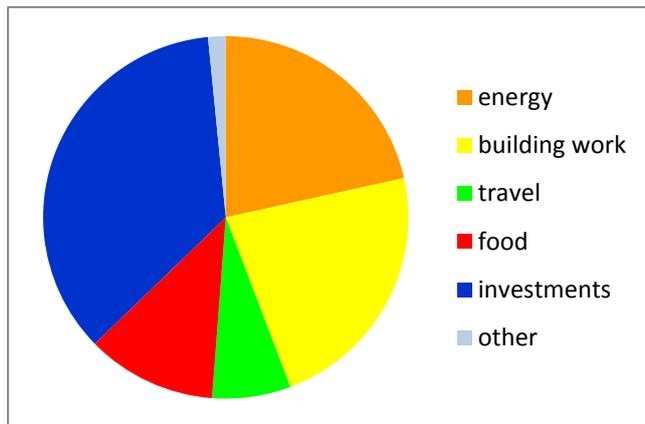


# Annual Report of the Environment Committee

## Green Impact 2018

The Environment Committee has recently received confirmation that the College has achieved a Gold Award in this year's Green Impact Awards. Our submission for a Special Award for Environmental Improvement (see below) is still under consideration.

## Submission for Special Award: St Regis Building Project and Embedded Carbon



*First approximate breakdown of the Clare College's entire greenhouse gas footprint, based on data for 2012/13 (a previous phase of building work). Total emissions are estimated at ~9400 tonnes CO<sub>2</sub> e/y.*

In 2014-15 Clare Environment Committee commissioned a report on the College's overall emissions footprint from Committee member and emissions expert Dr Andrew Friend. His report highlighted the importance of building work (yellow) which (like most other parts of the University) we had so far done little to address.

When the College decided to redevelop the St Regis site, we saw a novel opportunity for marked environmental benefits.

During the planning application stage, the architect was briefed on the College's ethos

and desire for sustainability performance. In February 2017 a report was delivered outlining the potential performance of initiatives such as the use of a CHP (Combined Heat and Power) plant, which has subsequently been incorporated into the design.

Dr Andre Serrenho, a College Research Associate, industrial ecologist, and member of the Environment Committee, together with Buildings Manager Deborah Hoy, organised a workshop with the design team (architect, structural engineer, and mechanical and electrical designer) to review in detail the material to be used. The full report is attached.

Key outcomes include:

- a dramatic reduction in ongoing emissions – e.g. the commercial flats in the new build (Hamilton Road block) will have an estimated Building Emission Rate of 12.2 kgCO<sub>2</sub>/m<sup>2</sup>/annum, compared with the average for similar flats built in the last five years of 19.0 kgCO<sub>2</sub>/m<sup>2</sup>/annum
- in terms of the frequently overlooked issue of embodied energy, as a direct result of the workshop we have opted to use blast furnace slag to replace 50% of the Portland cement required for the building. This will reduce estimated embodied emissions from 261 to 179 kgCO<sub>2</sub>/m<sup>2</sup>, without affecting the capital construction budget.

This initiative went far beyond normal ways of working with consultants on major projects: we hope the resultant benefits encourage other projects within Cambridge to adopt a similar approach.

## Buildings Report

This year the Buildings Department took delivery of an electric van to help save on diesel usage. This has helped to decrease our use of fuel from 1,612 litres in the calendar year 2015 to 1,003 litres in 2017.

Alongside involvement in the Green Impact submission, and the work on the St Regis project, the department is also taking steps to reduce water usage. A trial of shower timers is being carried out at Clare Court. Alongside its potential benefits in saving water, it is hoped that it will encourage students to think about their water usage. Simultaneously, the department is trialling flow regulators in showers at the Colony, which can also help to save water in the shower.

## Gardens and Biodiversity

We have continued to develop our 'Wild Border' in the Fellows' Garden by sowing native seed mixes of wild flower, adding to the already naturalising Yellow Rattle, *Rhinanthus minor*. Through our continual development of this area we are pleased to say we have some flowering wild Orchids.

Longer term we now have detailed plans approved for the landscaping of St. Regis; this project has focussed heavily on the sustainability of the designed landscape with the use of native species and to provide suitable habitats to encourage a wider bio-diversity.

## Conferencing Department Report

Carl Young from the Conference and Events Team has now joined the College Environment Committee, which has led to various changes on how Clare runs events throughout the year. Carl has made an outstanding effort to reduce the conference department's carbon footprint and implement environmentally friendly initiatives to our events which include:

- In place of using water coolers which require buying 19 litre plastic water bottles together with countless plastic disposable cups that are provided with water coolers, we instead have moved to reusable glass bottles using either tap water for still and carbonated water from our existing mineral water supply in Old Court. We have also replaced the plastic disposable cups with glasses on conference meeting room tables and for use during refreshment breaks.
- Promote paperless events with online agendas and programmes and encourage all communication by email including using our online brochure to provide information and promotional material.
- To encourage 'greener' menu choices, the format of our menus has changed to prioritise vegetarian choices at the start of the menu rather than at the end – which particularly with the starters, has proven to be very successful, as well as increasing the supplement cost for ruminant (beef and lamb) dishes and less sustainable fish courses.
- Guests/delegates are encouraged to use public transport to attend meetings held at the College. Prior to their arrival information is sent and posted on our website about non-car methods of travel here and we make clear that we are restricting car parking as much as practically possible.
- Finally, later this year, we are exploring accreditation for Green Tourism and dedicating a 'Green' webpage to the Conference site.

## Catering

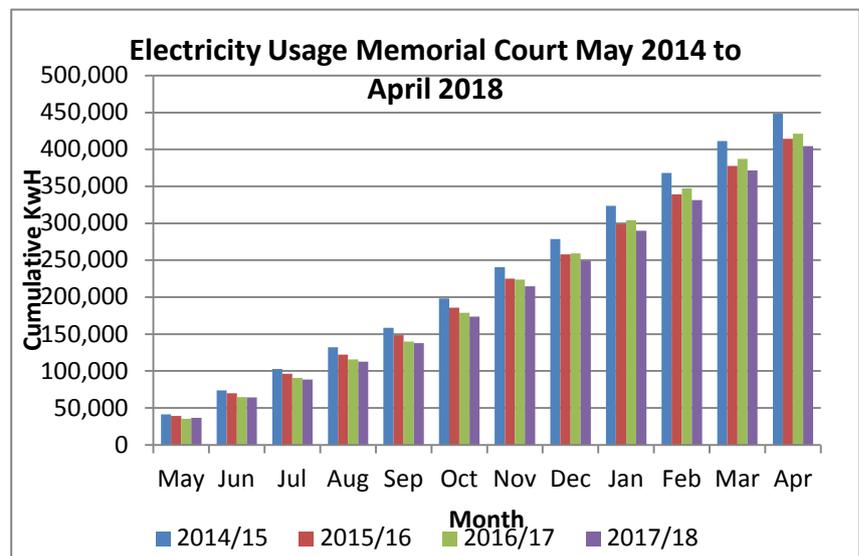
A recent article in the *Guardian* highlighted the significance of meat consumption in carbon emissions.<sup>1</sup> The Environment Committee have been keen for several years to reduce the amount of meat consumed in College for its environmental benefits. The College sells a very high proportion of vegan and vegetarian meals (around 49% of all meals sold in the Buttery). This year the Catering Department have introduced a new layout to the menus, putting the vegan and vegetarian options first. The layout of the food in the Buttery has also been re-arranged so that the first meals seen are the vegan and vegetarian meals.

## MCR Report

It has been a positive year for the MCR Green officer, with a lot of new projects and initiatives being put into motion. Namely, we have been working closely with the Accommodation Manager in trialling composting in graduate student accommodation; this is an ongoing project with initial results looking promising. Concurrently, a trial of shower timers has been underway in Phase 1 of Clare Court. This is yet to yield any quantifiable results (in part due to an extraordinarily cold spring, meaning that gas consumption went up rather than showing a hoped for decline); however, the trial will continue into the next academic year, and we will be creating some informal information sheets for students about how decreasing shower time can save water. Finally, a 'greencycle space' has been established. Through this initiative, a shed-space at Clare Court will be used to accommodate gently used items outgoing Clare graduate students do not need, with the idea that incoming students in the next academic year will be able to re-use these items rather than buying new, saving both money and the environmental costs involved in the products manufacture.

## JCR Report

The JCR has once again run the 'Staircase Competition', encouraging students to turn off the lights during the day. The positive benefits seen in previous years meant that this year it was rolled out across all undergraduate properties. Bedders report on how many lights in a particular staircase are left on; the winning staircase receives pizza. The graph illustrates the savings in energy use in Memorial Court.



Joanna Costin, Secretary of the Environment Committee

William Foster, Acting Chair of the Environment Committee

<sup>1</sup> <https://www.theguardian.com/environment/2018/may/31/avoiding-meat-and-dairy-is-single-biggest-way-to-reduce-your-impact-on-earth>