

**NOTES FROM A MEETING OF THE DOWNING COLLEGE
CARBON REDUCTION TASK FORCE, HELD AT 13.30 ON 17 JANUARY 2008**

Present: Prof Bill Adams (Chairman), Housekeeper, Buildings' Manager, Brendan Smith (MCR Green Officer), Domus Bursar (Acting Sec).

Apologies: Dr Duffett-Smith Absent: JCR Representative

1. Item 1: Ratification of Terms of Reference. The CRTF agree the Terms of Reference (attached). It was agreed that the College should not only look at the consumable nature of our energy use, but also on the less tangible behaviours which can affect our communal carbon footprint, such as means of travel to work and conference business..
2. Item 2: Ratification of Membership. Membership was ratified, and it was noted that a separate Secretary was required. This has been offered from the College Office staff.
3. Item 3: Areas of practical application. It was agreed that addressing consumption of electricity, gas and water, and setting targets for savings, could only work if we can obtain current utilisation data. The houses on Lensfield Road have individual gas and electricity supplies, so these can be monitored, but the Domus is fed from fewer, larger supplies, and thus it is harder to allocate consumption to living, teaching and catering occupation. The Buildings' Manager advised that he had electricity data for staircases as a result of an earlier phase-balancing exercise, and reminded the CRTF that we had also had a report from the Carbon Trust suggesting various energy-saving initiatives, many of which had been implemented.

It was agreed that:

- a. **The Buildings' Manager would copy and circulate the Carbon Trust Report to all members.**
 - b. **The MCR representative would produce a draft precis of the Report for circulation to all students.**
 - c. **The Buildings' Manager would provide the load-balancing data as a start to monitoring consumption on the Domus staircases. This would be passed to Dr Duffett-Smith for expert analysis. There was also the potential for a vacation student project to aid the CRTF.**
 - d. **The MCR representative would investigate the provision of electricity monitors for each staircase (proximity meters).**
 - e. **The Domus Bursar would draw together water consumption data from the Bursary.**
 - f. **The CRTF would attempt to assess the allocation of resources between living, teaching/admin and catering operations on Domus to give a baseline consumption figure for each area.**
4. Item 4: Briefing on new build policies. The Chairman reminded the meeting that new builds now carried quite stringent environmental requirements, such as the need to provide 10% of energy requirements if over 10,000 m² of new build, or having more than 10 dwellings. The University was investigating whether such provision had to be on-site and, if off-site, whether it could be handed over to a third-party provider.
 5. Item 5: Downing building projects. The Buildings' Manager advised that the new Howard Theatre build will incorporate solar water heating, ground-source area heating

(based on bores in the sunken garden) and would use 'grey water' for toilet operations. When the bathrooms in Howard Court were refurbished (Summer 2008), these would also have grey water flushing retro-fitted. In addition, work was continuing in trying to reduce the heat losses from the kitchens, and consideration is being given to adding further ground-source bores to heat the kitchens.

6. Item 6: Downing Energy-Saving Initiatives. As a result of the Carbon Trust report, many initiatives had already been adopted: low-energy lightbulbs had been fitted throughout the Domus (with spares available in the Plodge); TRVs had been fitted to many radiators; individual gas heaters had been virtually eradicated; movement sensors had been fitted to some corridor and bathroom lights; boilers had been put on time-clocks to cut out in the middle of the day and at night. Unfortunately, some of these changes had been negated by users – eg because radiators take a finite time to cool, users often opened windows to reduce heat; some hostelkeepers had over-ridden the boiler controls and boilers were being run non-stop etc. The Domus Bursar produced a table of electricity utilisation for the Lensfield Road houses, which showed marked differences between virtually identical buildings.

It was agreed:

- a. **The Lensfield Road data would be further analysed to identify causes of additional consumption (which could be external lighting, IT server locations etc).**
 - b. **The Domus Bursar, in conjunction with the JCR representative, was to advertise and monitor an energy-saving competition between the UG Lensfield Road houses, with a free formal provided to the house making the greatest percentage savings by the end of May 2008.**
 - c. **The Housekeeper's staff would continue to record electricity usage at the start of each month, which would be fed back to the students.**
 - d. **The MCR representative would investigate, with the JCR, means of producing a suitable carbon-reduction information page on the JCR website. The Domus Bursar would produce an entry for the electronic newsletter circulated by the TAO.**
 - e. **The Buildings' Manager would seek a post-construction energy audit on the West Range Project from the newly-installed BMS.**
7. Item 7: Any Other Business. There was no other business.
 8. Item 8: Date of Next Meeting: The next meeting would be held on 25 or 26 February, following a birdcage from the College Office.

R K Taplin
Acting Sec

DOWNING COLLEGE CARBON REDUCTION TASK FORCE (CRTF) – TERMS OF REFERENCE

Aims.

- To review energy usage, especially of gas and electricity, by Downing College, to identify and propose means of reducing carbon utilisation and achieving financial savings, and to assist in achieving those savings.
- To advise Downing College on ways to reduce its ‘carbon footprint’ with regard to both current and future buildings and other activities.

Membership.

The Task Force will comprise:

- Professor Bill Adams, Fellow and Professor of Conservation and Development (Chair from Easter 2008)
- Dr Peter Duffett-Smith, Fellow and Reader in Physics (Chair until Easter 2008)
- The Domus Bursar
- The Buildings’ Manager
- The Housekeeper
- College JCR Green Officer
- A representative from the JCR/MCR
+ *Secretarial support from the College Office*

Role.

The Task Force is to:

1. Carry out a carbon audit for the College, clearly defining the sources of carbon across the College’s scholarly and business activities.
2. Define a carbon production target, and devise a plan to meet it
3. Review ways to make College more self-sufficient in energy generation.
4. Monitor electricity, gas and water usage.
5. Install discrete monitoring systems as required – e.g. on individual staircases – to obtain absolute and comparative resource utilisation data.
6. Define specific incentive schemes to encourage resource savings, and then publicise, implement and manage them.
7. Investigate instances where resource utilisation appears aberrant, and take action to correct it.

The Task Force will meet 2-monthly to review progress, or more frequently if so- required. The Domus Bursar will be responsible for day-to-day management of monitoring systems, collating data, and informing Task Force members of results.