

Case History

University of Oxford



The Radcliffe Camera



The Ashmolean



The New Biology Building

There are over 21,000 students at the university, including 11,723 undergraduates and 9,327 postgraduates. Including the colleges and Oxford University Press, it is the largest employer in Oxford and the second largest in Oxfordshire, supporting more than 18,000 jobs and injecting £750 million annually into the regional economy.

In spring 2011 The Green Consultancy successfully tendered to the University for a Programme of work to create a new Five Year Carbon Management Plan supported by a rolling programme of investment grade energy audits to identify energy saving opportunities and solutions to form the basis of the plan.

Energy use within the university's academic, research and administrative estate, resulted in the emission of over 80,000 tonnes of CO₂ in 2009/10. The University is targeting a reduction of 21,500 tonnes within five years, but emissions are currently on an upwards trend, and the University's Carbon Management Strategy indicates that emissions resulting from building energy use increased by 17% between 2005/06 and 2008/9. Reductions are required in "absolute" terms, and the 21,500 tonne reduction is therefore particularly challenging.

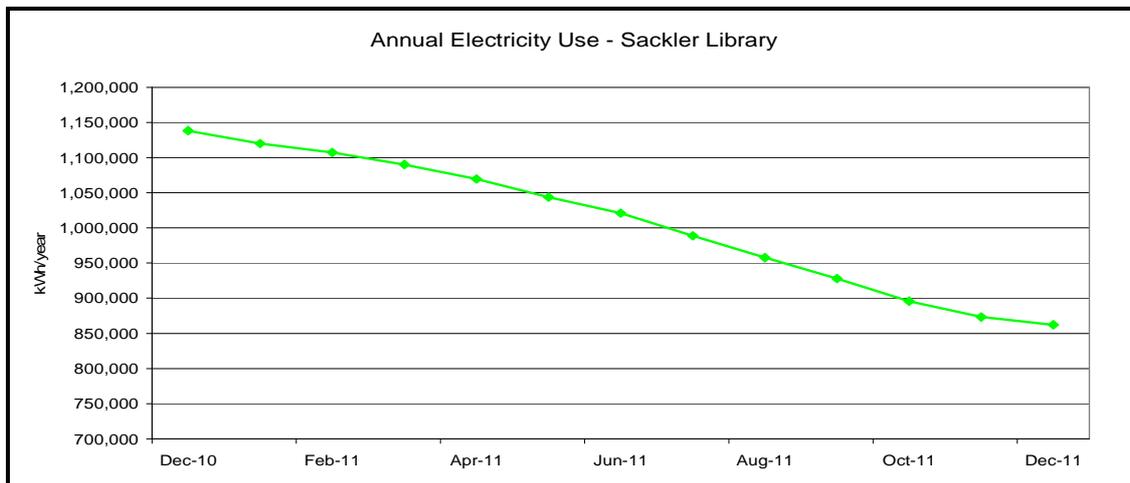
The Green Consultancy has:

- reviewed previous energy surveys
- investigated the University's Building Energy Management System, some major boiler plant, and also some individual buildings for which the requirement for remedial works became apparent during the course of the process
- carried out Investment Grade Energy Efficiency Audits of two dozen buildings (typical opportunities identified by only eight Audits are £274,000pa worth of savings on a spend of £850,000pa – a 32% saving, with a payback of 2.3 years)
- provided the first draft of the Five Year Carbon Management Plan, identifying over 15,000 tonnes of potential carbon savings (ie 70% of target with many more buildings not yet investigated)



The Sackler Library

Tangible results have already been achieved for some buildings, such as the Sackler Library, for which the trend in electricity use is illustrated in the chart below.



Only a small proportion of the recommendations for this building have so far been implemented. It is anticipated that further reductions will reduce the building's carbon emissions by over 40%.

"I have been very impressed by the quality of The Green Consultancy's work for the University of Oxford; right from the start, when their fee proposal included a brief overview analysis of the energy consumption in our building stock. All of the energy survey reports have been of high quality, and tailored to our specific requirements. The reports show an in-depth technical understanding of the key issues and they focus on the major areas of savings. Many of the recommendations were not identified in previous surveys. TGC is not afraid to ask difficult questions and challenge the status quo. I have worked with and for energy consultancies for more than 20 years and the quality of TGC's work is some of the best I have seen. TGC has been good to work with and have efficient administrative support."

**Philip Pike, Energy Manager, Sustainability Team,
Oxford University Estates Directorate**

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