

SOAS Case Study 2nd February 2011

Introduction to your not so new Head of Energy Management – Stephen McKinnel

Stephen joined SOAS in March 2010 as head of Energy Management which is a shared role with 4 other Bloomsbury Colleges.

This new role is primarily to look after the 20 year Bloomsbury Heat and Power contract which has reached the halfway point. The BHP scheme is operated by a 3rd party and uses combined heat and power (CHP) engines located in the SOAS boiler house to supply heat and electricity around the Bloomsbury precinct in a more cost effective and environmentally friendly way. The role will help to further improve the performance of the existing scheme and help develop it further for the future.

The role also provides energy management and carbon reduction measures to the members of the consortium.

A number of projects have been implemented at SOAS over the last few months which will reduce the carbon footprint of the school and reduce operating costs.

SOAS are also taking part in cohort 6 of the Carbon Trust's Higher Education Carbon Management Programme which will complete in March 2011 with a full Carbon Management Plan to help us meet our target reduction of 48% of CO₂ emissions by 2020 based on our 2005 footprint.



Projects on the go

Here is a flavour of some of the projects that are currently being implemented. Some of these are being financed using interest free loans from Salix which is an arm of the Carbon Trust.

- 1. Carbon Management Plan.** This is looking at measuring our existing carbon footprint from our operations and looking at what measures we need to put in place to help meet our reduction targets. It will have full backing from SOAS management and be signed off by the executive board.
- 2. Brunei Gallery.** We are replacing two old chiller units for the air conditioning system with a brand new highly energy efficient chiller and upgrading controls and other items of plant to

improve efficiency. The controls works have already been completed and the new chiller will be installed in the spring. These measures will help to improve the energy rating of this building which is currently a G.

3. **Philips Building Heating Controls.** This has been a major project to introduce zoning of the building to improve comfort and reduce energy consumption by taking into account things such as solar gain and differing occupancy times. The works are going through final commissioning and should be fully operational in the next couple of weeks.
4. **Voltage Optimisation.** As part of the electrical infrastructure renewal, we have installed a voltage optimisation unit for the Brunei Gallery and College building which will help to reduce electricity consumption by 7-9%. A second unit is planned for the Philips building during the summer works.
5. **Russell Square and Vernon Square buildings.** These buildings have been fitted with building management systems to control the heating and improve conditions. The original controls had failed and these buildings were overheating and operating when not required. These works are just completing now.
6. **Main Campus Hot Water Heat Recovery.** This project will realise significant carbon and cost savings as we are going to utilise low grade heat from the CHP engines which is currently being discharged to atmosphere to preheat the cold water feed to the hot water system. This will improve the operation of the CHP engines and allow us to turn off other plant which is currently used to support the CHP system. The project has just started and is anticipated to complete at the end of February.

There are a number of other projects that have taken place linked to some of the refurbishment projects that have taken place over the last few years and there are a number that have been identified for future works.