

ENERGY week

Monday 1st – Friday 5th December

Ecoversity Energy Week
1 – 5 December 2008

The BIG Switch Off

'The BIG Switch Off' Project is the start of a long-term campaign to reduce our electricity consumption by 10% and at the same time save the University £100,000 at today's prices which can then be reinvested.

Starting on Monday December 1st we are asking all staff and students to switch off any non-essential lighting, equipment and computers, and generally to try to conserve as much electricity as possible. Few people within the University have direct control over their heating hence it is harder for people to save energy this way.

We will be monitoring electricity consumption daily and reporting back the savings our efforts are making via the University Ecoversity home page:

[http://www. Bradford.ac.uk/ecoversity/carbon/energyweek08](http://www.Bradford.ac.uk/ecoversity/carbon/energyweek08)

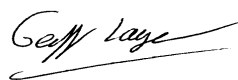
The University has just been issued with its Display Energy Certificates (DECs), which are required under new legislation. These certificates rate the energy performance of buildings on Campus using a similar visual display to rating systems on white goods such as dishwashers and fridges. A seminar on 'Energy Use in our Buildings', including the DECs, and a 'Question and Answer' session will be held on Thursday 4th December 2008, 12.30-2.00pm, IPI second floor conference room, to explain the DECs and what the University is doing to improve the heating and control of temperature in our buildings. Booking via x6929.

We have produced a table to show 10 relatively simple actions that we could all take to save electricity during the day or when we have finished work or study. It is important to remember that these actions should apply to **non**-essential equipment and to **your** equipment only. Please do not switch off other people's equipment without their permission or switch off items about which you are unsure e.g. safety lighting etc. If in doubt leave it on.

For the Switch Off to be effective we need staff and students to be involved. A student team will be patrolling the Campus during energy week with some stickers depicting a green hand, which will be stuck on any doors where lights or other equipment have been left on and the room is unoccupied. During the course of the week the patrols will be monitoring any reduction in the numbers of rooms being stickered in this way.



Ian Palmer
Dean of Informatics, Chair of the Energy Task Group



Geoff Layer
PVC Learning & Teaching, Ecoversity Sponsor.

If you have any queries or would like to be involved or know more about Energy Week or energy and carbon management at the University then please contact: ecoversity@bradford.ac.uk

10 things you didn't know about energy and carbon at Bradford:

1. Last year the University spent over £1,200,000 on 14,000,000 kWh of electricity.
2. The energy bill this year was 50% more than in 2006. Our electricity consumption over this time period increased by 10%.
3. The heating and power for our buildings generates around 13,000 tonnes of carbon.
4. As a University we have a very high base load, which means we appear to use a large amount of electricity at night when no-one is here. We estimate that about 15-20% of all our electricity use is for things left on overnight.
5. Our electricity supply is classified as 100% green.
6. The majority of our buildings on the main Campus are heated from the central Richmond boiler house via a ring-main which pumps hot water round the Campus. The University is currently in the design phase to convert the boilers to combined heat and power, which will increase their overall efficiency.
7. Many of our buildings date from the 1960's and 1970's and have poor thermal characteristics with single glazed windows and low insulation fabric. This is part of the reason why many are difficult to regulate.
8. The University has invested over £100,000 in the past 2 years on a Building Management System (BMS), which is the basis for a phased strategy to improve the temperature control in a number of our buildings. Approximately 40% of the University buildings are covered by the BMS
9. The University biomass boiler has reduced our carbon emissions by 500 tonnes per annum and costs 30% less on a heat-for-heat basis than the equivalent of a gas fired plant. (For more detail about the Biomass Boiler visit <http://www.brad.ac.uk/admin/ecoversity/carbon/biomassboiler.php>)
10. The University **is committed** to improving the comfort of building occupants and improving energy efficiency but it takes time and requires significant investment. A number of plans have been developed. Come to the Energy Seminar during Energy Week if you want to find out more and think of other ways to conserve energy. For further detail visit <http://www.brad.ac.uk/admin/ecoversity/carbon/energyweek08-seminar.php>

How to save Electricity during Energy Week

- if everyone could do some of the following actions during Energy Week it would make a huge difference to our overall electricity consumption:

Action	Reason
Switch off lights when not in use	The University has hundreds of thousands of lights - many of them left on at night or during the day when a room is unoccupied. A lecture room can have up to 2,000W ¹ of lighting.
Switch off computers at the mains	A computer and monitor can consume about 250W of electricity in use. When idling the computer can still use a large amount of electricity. Even in stand-by mode a PC and screen can consume a few Watts of electricity. If left on overnight this can add up to a lot of electricity for no benefit.
Set computer power management controls to low energy	All computers have the option to reduce power consumption, rather than switching off, when not in use. The Ecoversity website shows you how to do this and it can have a big impact on your overall electricity consumption. At the same time, screen savers are very heavy users of electricity. Avoid using a screen saver if you are able.
Avoid printing unnecessary documents	Printing documents in any form consumes electricity and also uses paper and creates paper waste. If you can avoid printing documents then there is a triple benefit. Last year the University purchased 22 million sheets of A4 paper - most of these used for printing. Inkjet printers consume much less energy than laser printers.
If you have to print small numbers use a printer rather than a copier	Printers generally have a lower power rating than photocopiers ² If you have a small print run and an efficient printer then print rather than copy. If you have a large print run then consider sending the job to the print shop, which has high efficiency printers.
In labs don't leave fume cupboards or equipment running unnecessarily	Laboratories are heavy users of electricity. If you are a Lab Technician or Manager ensure that staff and students aren't leaving equipment running unnecessarily. Do not turn off ANY lab equipment unless you are authorized to do so.
Try and avoid using supplementary heaters or fans in your rooms	Some members of staff have supplementary heaters and fans in their rooms, usually to compensate for the poor thermal control in their work environment. Whilst we do not condone the use of such equipment please try to minimize its use, as this adds a heavy demand on electricity consumption (A heater could be between 1,000 and 3,000 Watts). The University is aware of the problems with heating and cooling but it will take time and money to sort out.
Don't leave equipment charging beyond the point it has charged	Rechargeable batteries are good in reducing the amount of disposable equipment but try and avoid leaving chargers on too long and switch them off when an item has recharged. Also unplug phone chargers when not in use.
Don't leave projection equipment running after lectures	AV equipment in teaching areas is also a big user of electricity. When you have finished teaching or projection please switch off once the equipment has cooled down.
At the end of the day switch off all office equipment	Those glowing green and red LED stand-by lights all consume a few Watts of power. If the equipment is non-essential then switch these off at the mains at night. Please switch off ALL non-essential equipment.

¹ A Watt (W) is a unit of power. All equipment has a power rating. The higher the figure the more electricity is used in a given time period. A kWh is 1000W consumed in an hour. Currently the University pays about 7p/kWh daytime and 4p/kWh night time electricity.

² It is not always easy to compare equipment as the power ratings vary so much. Typically newer equipment is more energy efficient than older equipment and printers are typically more efficient for small print runs than copiers.