



What are we doing?

The University is developing ways to reduce its energy demand, prevent wastage, and gradually increase on-site production from renewable sources. Our initiatives include:

- Energy saving considerations 'designed in' to all new buildings through layout, positioning, natural ventilation, heat recovery, and features like localised controls, low energy lighting and automatic switching.
- Insulation upgrade to buildings and services of c£3.5m over the last 15 years.
- Trial of on-site renewable energies, including solar voltaic panels, solar pre-heat hot water and wind turbines.
- Trial of Green IT initiatives, such as server virtualisation and installation of Energy Star software.
- Upgrade of plant room equipment, including installation of high efficiency condensing boilers.
- Utilising canal water, a renewable resource, to run air cooling systems for a third of campus buildings.
- Installation of sophisticated 'Building Management Systems' to monitor and control all energy plant.
- Individually monitored and metered buildings.
- Working to targets provided by benchmarking tools.
- Comprehensive energy audits highlight areas for improvement.
- Thermal imaging of buildings used to identify and manage areas of heat loss.
- Periodical survey and feedback of lights left on, compressed air and computers left on.



Energy Saving

Directorate of Estates and Facilities



Don't just stand by and waste energy...

Switch it off!




True or False? "Fluorescent lights use so much power to start up, isn't it best to keep them on all day?"

False, it's a myth! Start-up electricity use is equivalent to a few seconds of normal running with modern lights. Switch off the lights you don't need and the savings start immediately.

Remember...
Don't just stand by and waste energy,



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Energy costs

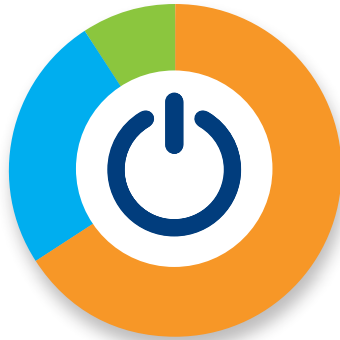
As energy costs continue to rise, we must all find ways to reduce unnecessary energy consumption on campus.

Expenditure on gas and electricity has more than doubled over the last two years.

For the current 2009/10 year, utilities bills are expected to be our third largest area of spend, comprising 19% of our budget at an incredible £1.8m.

Estates utilities budget 2009-2010 £1.8 million

- 66% Electricity
- 25% Gas
- 9% Water



Fact: 30% of energy consumed in the UK is wasted, costing businesses millions of pounds in lost revenue each year.

There are also added pressures from new obligations, such as the Carbon Reduction Commitment Energy Efficiency Scheme commencing in April 2010, which will see us paying additional 'energy taxes' on every unit of energy we use.

Given these facts, it is more apparent and more urgent than ever that energy wastage on campus must be tackled – and most of us would agree this money could be better spent.

With an achievable 10% reduction in our consumption, the potential £180,000 savings would equate, for example, to the salaries of four lecturers or eight support staff, or the refurbishment of nine of our teaching rooms.

Did you know?

Switching off non-essential equipment in an office overnight saves the equivalent energy to run a small petrol car for 100 miles.

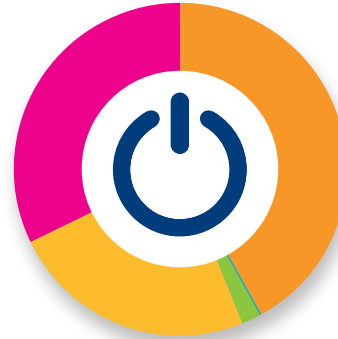
Energy and emissions

Just as importantly, energy consumption contributes substantially to the emissions that produce climate change.

Energy usage is by far the largest portion of our carbon footprint at the University, making up 42% of our most recently calculated footprint.

University carbon footprint (tonnes CO₂) 2007-2008

- 42% Energy (8,474)
- 0.1% Water (21)
- 2% Waste (436)
- 24% Travel (4,708)
- 32% Procurement (6,302)



A more sustainable future for the University is one in which less energy is used, because of the conserving actions of staff and students, together with improvements in technology and plant room equipment.

We are aiming to address this aspect of our carbon footprint over the coming months, and are looking for your cooperation to do this.

What can we all do?

Follow these tips to cut the University's electricity bill and carbon emissions.

Lighting

- Switch off lights that are not needed, even if you are just leaving a room for a few minutes.
- Make maximum use of daylight.
- If possible don't switch on all the lights when only a few are needed.

Fact: Lighting an office overnight wastes enough energy to heat water for 1,000 cups of tea.

Computers and monitors

- Two thirds of energy used by a computer workstation is used by the screen – switch off your PC monitor when you are not using it (eg when you go to a meeting, to teach or to lunch).
- Screen savers do not save energy – instead apply built in powersave settings.
- After shutting down your PC make sure the monitor light is off - if not you need to press the monitor button to ensure it is completely off.

Think!

A PC left running 24 hours per day wastes £20 worth of electricity a year. That's £200 – and nearly a tonne of CO₂ for every 10 computers!



Electrical equipment

- Only switch on when needed and switch off when not in use.
- Do not leave equipment running overnight or at weekends unless there is a special reason for doing so – allocate responsibility to one person to switch off.
- Avoid leaving equipment on standby – some appliances still use a quarter of their normal power in standby mode.
- Unplug chargers and power supplies (eg for mobile phones, laptops) when not in use, as they still consume power even if not charging.
- Activate energy saving features on items like printers, photocopiers and faxes.
- Specify energy efficient equipment when purchasing.

Did you know? A photocopier left on overnight uses enough energy to produce over 1,500 copies.

Heating and cooling

- Avoid opening doors or windows when heating or cooling systems are on.
- If you think the heating or cooling is a problem in your area report it to the Estates Helpline as there may be a fault. Don't just open windows or use electric heaters.
- Make sure that radiators are not covered by furniture and report doors and windows that do not seal correctly.

Fact: Overheating a building by 1 degree Celsius increases energy consumption by 10%.

Report any energy wastage that you identify to the Estates Helpline on ext. 2550 if you cannot resolve the situation yourself.