



The University of
Nottingham

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Sustainability Report 2010/11

www.nottingham.ac.uk/sustainability



Introduction

One of the University's key objectives is to embed Sustainability in our campus, curriculum and community programmes.

This report gives an overview of our performance and activity in 2010/11. If you would like to find out more about what we are doing or how you can get involved please see www.nottingham.ac.uk/sustainability.

Waste and Recycling

- New **waste and recycling contract** resulted in reduced costs, a saving of £21,000 and less than 15% waste sent to landfill.
- Approx 25% of waste generated is segregated for **recycling** by staff and students. A further 60% is diverted from landfill through **reuse and recovery** by the waste management company.
- **Food waste recycling** scheme extended to all halls of residence and food courts.



Energy and Water

- Overall **energy consumption** reduced by 1.3%, with electricity consumption down 1.6% and gas usage down 1.1%, despite floor area increasing by 1.2%, student numbers rising by 3.0% and the weather being 0.4% cooler (as measured by 'degree days').
- Overall emissions of **CO₂** (carbon dioxide) from all energy sources fell by 1.7% - a reduction of 1,172 tonnes.
- **Energy costs**, including taxes, rose by £1.3 million to £10.6 million. Although this was a rise of 10%, our policy of 'flexible' energy purchasing helped to avoid even greater rises; our energy prices were the lowest in the Russell Group in 2009/10 (the most recent data available for the sector).
- The University's **Carbon Management Plan** was approved in December 2010. It contains ambitious targets to reduce emissions by 34% by 2020 compared to a 2005/6 baseline, requiring annual reductions of around 2,500 tonnes CO₂ per year.
- £1.59 million was invested in **carbon reduction projects**, generating savings of 4,096 tonnes CO₂ and £686k per year. Projects include:
 - Roof insulation on 15 buildings, including 7 halls of residence
 - Cavity wall insulation in 11 buildings
 - Operating fume cupboards and laboratories with lower energy usage
 - Recommissioning the 300kW combined heat and power unit at King's Meadow campus
 - Reducing overvoltages of main transformers
 - Installing new and refurbished heating control systems in 7 buildings
 - Installing photovoltaic panels on Derby and Lincoln halls of residence
 - Installing solar thermal (hot water) panels to Sherwood Hall
- **Water usage** increased by 6%.



Travel and Transport

- £800k was invested in improving **cycle facilities**, including:
 - new cycle lane infrastructure on University Park
 - 200 lockers for clothing storage
 - 272 new cycle parking spaces, bringing the total spaces available on campus to over 3,600
 - covers for 214 existing cycle parking spaces
 - 4 bespoke secure cycle storage facilities
- Student **bike hire scheme** launched, with 224 bikes hired out through Ucycle Nottingham.
- **Ucycle Nottingham** has engaged with 2,364 individuals, through activities such as led rides, Dr Bike sessions and cycle maintenance training.
- 145 cycles purchased for staff through salary sacrifice **cycle to work schemes**.
- Over 840,000 individual journeys made on **hopper buses** – an increase of 32% on 2009/10 journeys.
- **Travel pass scheme** launched that enables staff to purchase discounted bus passes through Payroll, with 350 employees purchasing bus passes.
- Discounted rates negotiated for student travel on **Trent Barton** buses.
- Enhanced frequency of **Unilink 34** service - from every 12 minutes to every 7/8 minutes - and extended hours of operation.
- Joint working with local bus operators has continued to increase **bus patronage**. Numbers of passengers on Nottingham City Transport's Unilink 31 and Unilink 34 bus services increased by 16% and 23% respectively in 2010/11 (compared to 2009/10).



Procurement

- All **office furniture** suppliers are certified by the Forest Stewardship Council (FSC) or the Programme for the Endorsement of Forest Certification (PEFC), and deliveries are consolidated to minimise transport.
- Tendered for **Managed Print** service to minimise use of desktop printers, reduce paper usage and introduce a more efficient, greener method of printing, creating annual savings for the University of £390,000 - £650,000.
- Online **travel and expenses system** allows travellers to view the carbon emissions of a potential trip, enabling informed decisions to be made.

Campus development

- The University has applied for planning permission to construct **three wind turbines** at Grove Farm, adjacent to the River Trent near Clifton Bridge. The turbines would supply electricity directly to University Park campus, meeting a third of the campus's electricity needs and reducing our CO₂ emissions by around 7,000 tonnes per year.
- Three **new buildings commissioned**, increasing the overall Gross Internal Area by 11,113 m² with predicted increase in annual CO₂ emissions of 475 tonnes.
- **Renewable energy technologies** installed in the new buildings include biomass boiler (Bioenergy building) and ground source heat pumps (in Mathematics and Humanities buildings).

Awareness raising, training and communication

- **Halls environmental competition** encouraged students to reduce electricity consumption and reduce the waste sent to landfill. Electricity usage reduced by 8% compared to the same period in 2009/10.
- **Go Greener Week** returned in March 2011, with a series of workshops, events and activities. Highlights included local food markets, tours of the eco-houses on campus and an eco-driving simulator.
- The University was placed second in the **UI GreenMetric World University Ranking** carried out by the University of Indonesia. The survey attracted submissions from more than 90 universities from 35 countries around the world, and Nottingham topped the list of participating universities in Europe and was the only UK institution in the top 10.
- A National Union of Students survey of Nottingham students indicated that the majority of students have a high **awareness of environmental terms and behaviours**, with 43% of all respondents believing that University schemes have led them to increase their environmentally friendly behaviours.
- A range of **seminars, stalls fairs and presentations** have been given to engage different sections of the University community, including:
 - Welcome events for new staff
 - Sustaining Excellence conference
 - Community engagement and sustainability conference
 - School Managers' meeting
 - Staff Environmental Champions training
 - School board and admin committees
 - Hall JCR committees
 - Freshers' Fair



Information Services

- **PowerMan** introduced across all University PCs, hibernating PCs after a defined period of inactivity, reducing their energy usage and generating savings of around 600 tonnes CO₂ per year.
- **Hot aisle containment system** installed at King's Meadow data centre to keep the incoming cool air and the hot 'exhaust' air physically separated. The work is estimated to reduce electricity consumption of the data centre by 5% and enable better air temperature control within the data centre.
- Continued **server virtualisation**.

Landscape

- University Park campus was awarded a **Green Flag award** for the ninth consecutive year, acknowledging it is a well-managed, high-quality green space, with sustainability integrated into operations.
- Students volunteered with **Friends of University Park** group for the first time, working on projects such as the renovation of Hugh Stewart Rock Garden.
- **Biodiversity audit and management plan** completed for University Park campus.



- **Bee hives** introduced to King's Meadow Campus.
- A **student allotment** was developed at Sutton Bonington.
- Path created at Grove Farm, in partnership with Nottingham City Council, to complete the riverside **Big Track** route which forms part of the Trent Valley Way.

Teaching and learning

- Participated in **Green Academy: Curricula for Tomorrow** – the Higher Education Academy's pilot change programme, to develop business case and provide support to embed sustainability in curricula throughout the University.
- Education for Sustainable Development (ESD) approved as a new **Grand Challenge** by Teaching and Learning Board. A new working group has been formed to implement ESD in taught programmes.
- Developing **video case studies** of ESD by discipline/faculty. These will form the introduction to a new online teaching resource.
- Developing ESD content/activity within **Nottingham Advantage Award**.

