

A black and white photograph of a wind turbine at night. The turbine is illuminated from below, creating a bright glow around its nacelle and tower. The background is a dark sky filled with stars and some light clouds. In the foreground, there are some faint lights and structures, possibly part of a farm or industrial site.

ENVIRONMENTAL
PERFORMANCE
REPORT 2011-12

INTRODUCTION

Lancaster University understands its responsibility to protect the environment. It is fully committed to; reducing the impacts of its operations, demonstrating best practice in sustainability and influencing its members and the wider community in minimising their impacts.

Improved environmental performance during 2011-12 and the implementation of exciting environmental projects has helped the University move towards its vision of a more sustainable campus.

This combined with the commitment of staff, students and other stakeholders has enabled the University to reduce key impacts over the last year.

This environmental report summarises the University's environmental performance from 2011 - 2012.



Energy, Utility & Carbon Management

Implementation of Lancaster University's *Carbon Management Plan* has continued apace during the last year.

The plan sets out the carbon reduction strategy which has enabled the University to meet the challenging future carbon emissions reduction targets.

This year has seen further successes in respect of energy and carbon performance, with a significant reduction in carbon emissions.

Energy surveys of all major buildings on campus have been completed, identifying over 950 energy saving opportunities. A number of major energy projects have also been completed or initiated.

Major works on the new Energy Centre have been on-going this year, with installation of the new combined heat and power engine completed and installation of the new biomass boiler commencing.

Construction of the new 2.3MW wind turbine started in January 2012, with the turbine commencing operations in November 2012.

The new wind turbine is projected to generate 11-17%* of the University's annual electricity requirements and make a significant contribution to cutting carbon emissions.

Total annual electricity consumption is essentially stable at 33,794MWh, compared to consumption of 33,538MWh in 2010-11, despite increases in demand from new and refurbished buildings and intensification of IT demand.

- Electricity reduction target of 5% exceeded, achieving a reduction of 7.4%.

- The new Combined Heat and Power engine (CHP) generated 15.6% of the University's electricity in 2011-12 (5,268MWh).
- Carbon emissions from electricity and gas reduced by 5.8% to 26,054tCO₂e.
- Lancaster University started paying for its carbon emissions as part of the *Carbon Reduction Commitment Emissions Scheme*. This year's allowances for Lancaster University carbon emissions cost £308,000 at £12/tonne.
- Energy saving through Green IT policies is continuing, with the co-location project moving local IT equipment into the new ISS building.
- A new energy-saving *Staff PC Power Management System* is being trialled, to assess savings and practicalities prior to eventual roll-out.

Waste & Recycling

Lancaster University is committed to improving its reuse and recycling rates and reducing waste.

This past year has seen the finalisation and publication of Lancaster University's *Waste Strategy*, which sets out a long term strategy for improving waste management and recycling.

- Waste segregated on campus for reuse or recycling increased to 24.5%.
- Overall recycling and reuse rate for 2011-12 was 51%.
- Recycling bins installed into all residence kitchens in summer 2012.

*Dependant on mean annual wind speed and annual site demand.

SUSTAINABILITY



Student Initiatives

Green Lancaster runs a variety of student facing environmental volunteering projects.

This has been a very successful year for *Green Lancaster*, which has helped LUSU again achieve the top *Gold Standard in the NUS Green Impacts Awards*.

- *Exodus Charity Re-Use Project* won *National Environmental Association of Universities and Colleges (EAUC) Green Gown Award for Student Projects and Campaigns* in November 2011.
- Project Exodus was successfully run again during Summer 2012, and collected 16 tonnes of items for reuse by local charities.
- *The Bike Project* has now sold 238 bikes to students and staff on campus since it commenced in autumn 2009. A monthly bike sale and free 'Dr Bike' service session is offered in Alexandra Square.
- During the 2011-12 academic year, environmental volunteering events organised by *Green Lancaster* were particularly successful with 187 students participating in a wide variety of events both on campus and with local and regional community/conservation organisations.
- Successful residential environmental volunteering experiences were offered, with teams of students visiting the Middle Wood Ecological Trust and the Isle of Eigg.

Travel

With the revised version of *Lancaster University's Travel Plan* introduced in 2010-11, supported by a new staff travel policy, the last year has seen travel work focus on a number of areas.

Key achievements have included:

- The publication of a *Transport Carbon Management Plan* detailing carbon emissions associated with commuter travel and agreed targets to 2015.
- The development of a *Vehicle Fleet Policy*, designed to reduce carbon emissions and costs associated with LU vehicle fleet operations.
- The introduction of new car parking enforcement arrangements following a Government ban on wheel-clamping on private land.
- The launching of a *Pool Bike Scheme* for the Facilities Division staff, enabling them to use pool bikes on campus or for local business use.
- Successful revised parking arrangements for the Sports Centre have been introduced following extensive consultation with parking users.
- There has been a 30% increase in the number of annual Staff Unirider bus passes issued in 2011-12 compared to the previous year.
- Lancaster University awarded *Commuter Friendly Workplace of the Year 2011* by ACT Travelwise.
- Lancaster University shortlisted for a *Public Sector Sustainability Award for Best Transport / Travel Plan Project*.

Procurement

Procurement have been working hard in 2011-12, in order to understand and reduce the carbon emissions and other environmental impacts related to procurement activities.

Key projects have included:

- Completion of systems to enable the carbon emissions of all Lancaster University travel activities to be monitored and recorded.
- Started the detailed implementation of sustainable procurement *Flexible Framework* requirements.
- Reviewed the *Sustainable Procurement Policy* and set up the *Sustainable Procurement Group*.

Buildings & Projects

2011-12 has been another busy year for projects, focusing on sustainable building refurbishment rather than new builds.

Lancaster University aims to achieve the highest levels of sustainability, and subscribes to the BREEAM (Building Research Environmental Assessment Methodology) system.

Achievements during 2011-12 have included the following:

- The completion of the refurbishment of Bowland Main which achieved BREEAM 'Very Good' grading for design and post construction.
- The County South Building refurbishment was awarded BREEAM 'Very Good' grading for design.

Food

Lancaster University Catering is making sustainability a central goal of its operations.

A whole host of changes including a renewed focus on high quality, sustainable and local suppliers has seen major changes in the fare Catering can offer.

Key developments for 2012 have included:

- Update of *Sustainable Food Policy* and setting out sustainable food targets.
- Full assessment of sustainability performance of key suppliers.
- Targeting the *Soil Association 'Food for Life' Bronze Standard* in 2012-13.

Fairtrade University

Lancaster University maintained its *Fairtrade University* status this year, being re-accredited by the Fairtrade Foundation in March 2012.

Fairtrade highlights of the year included:

- Successful *Fairtrade Fortnight* held in February 2012, with the highlight being an inspirational talk on the importance of Fairtrade by Mali Cotton Farmer Massatoma Mounkoro
- Fairtrade product and awareness surveys in 2012 showed significant increases in the availability of Fairtrade products on campus and improved awareness of Fairtrade products amongst staff and students.
- During 2011 Lancaster University Catering served 292,124 Fairtrade hot drinks at its six outlets across campus and 145,057 hot drinks at internal meetings.



Lancaster University Catering is making sustainability a central goal of its operations.



FAST FACTS FOR 2011-12



ON THE INCREASE

- **Sustainable Energy**
New 2.3MW wind turbine constructed and operational by November 2012
- **Sustainable Heat**
Installation of new biomass boiler installed and operational by January 2013
- **Recycling Rate**
Campus segregated recycling rate increased to 24.5%
- **Fairtrade**
437,181 fairtrade hot drinks were served across campus in 2011
- **Reuse Rate**
Project Exodus collected 16 tonnes of items for reuse
- **Sustainable Travel**
30% increase in staff using bus passes in 2011-12
- **Sustainable Travel Awards**
Commuter Friendly Workplace of the Year 2011 and shortlisted for *Public Sector Sustainability Award for Best Transport / Travel Plan Project*



CONSTANT

- **Annual Electrical Consumption**
Total electrical consumption stable at 33,794MWh, despite increases in demand from buildings and activities

ON THE DECREASE

- **Carbon Emissions**
Reduced by 6% in 2011-12
- **Electricity Consumption**
Reduced by 7.4% against budget target of 5%

