

Case study

North Warwickshire & Hinckley College, Nuneaton

2015 Ashden Sustainable School Award winner



Serena Bacuzzi, Group Sustainability Officer for North Warwickshire & Hinckley College



North Warwickshire & Hinckley College's Nuneaton Campus

“North Warwickshire and Hinckley College has shown that impressive energy savings are possible even with 14,000 students spread across a number of different sites.”

Ashden judging panel

Taking on a big challenge

Sustainable energy activities at North Warwickshire & Hinckley College (NWHC) began in 2010 when the Carbon Trust assisted the college in developing a five-year £2m Carbon Management Plan (CMP), which set an ambitious targets for the reduction in carbon emissions by the end of August 2015. But the big question was, where do you start when you have several campuses and thousands of students?

Creating a joined up approach

Serena Bacuzzi, the Group Sustainability Officer for the College and the Estates Team lead the energy management of the college. The sustainable energy work focuses on reducing consumption through behaviour change, improving housekeeping and monitoring, a gradual programme of energy saving investments and the installation of a

“We are incredibly ambitious about taking this forward as we continue our work towards an even lower carbon future and as always using this to improve the experience of students and staff within our schools and colleges.”

Marion Plant OBE, Principal of North Warwickshire & Hinckley College

50kWp solar array on the Nuneaton building. NWHC has also worked hard to promote the energy saving message to staff and students through a range of events.

Committed carbon management equals win-win

NWHC's holistic approach to sustainability has seen it reduce CO₂ emissions by more than a third in the past five years. Improved insulation, better boilers, and the introduction of LED lighting and sensor controls are just some of the energy efficiency measures the college has put in place.



33% CO₂ reduction over 5 years



18% reduction in electricity use over 5 years



40% reduction in gas use over 5 year

IT team leader Maj Shaikh, himself a former student, has actually redesigned the IT facilities to reduce electricity use by 35%.

A team attitude to reducing consumption and building energy efficiency awareness, involving senior facilities managers and maintenance staff, is resulting in major savings to both the college budget and the environment. This has created a win-win situation, especially in an establishment that covers several different locations and is used by over 14,000 people.

“If we can make things more efficient at the college from a budget point of view then that gives us more opportunities to improve what we do with our students.”

John Taberer, Engineering Lecturer and Sustainability Champion

The College

North Warwickshire & Hinckley College has over 3,000 students aged between 14 and 19 years old, and provides courses for teenagers seeking vocational qualifications. It also provides professional development courses for local businesses and tradespeople. The college has facilities in five locations, but the main campuses are in a 1950's building in Nuneaton and a new-build in Hinckley.

Buildings and technology

The impressive Building Management System enables officers to continually monitor and control energy use in the Nuneaton and Hinckley buildings. Estate staff are able to set temperature levels in different parts of the buildings, 17°C being the norm, and adjust if necessary. Sub-metering around the campus also allows constant checks on levels of electricity use. Therefore, excessive use of energy can be identified fairly quickly and the estates team can respond accordingly. In addition to the estates team there are 11 site wardens who read the energy meters on a monthly basis. The readings are recorded by the Sustainability Officer, who communicates the energy use figures to senior management, staff and students.

The College has an ongoing refurbishment programme that includes measures to save energy such as energy-efficient boilers, improved insulation, double glazing and heating and lighting controls. For example, along corridors the natural lighting sensors switch off the lights when they are not required.

Behaviour change

Changing the behaviour of over 300 staff and 14,000 students of mixed ages, many of whom are part-time, is a huge task. The college has risen to the challenge by establishing a series of initiatives to raise awareness of the need to use energy efficiently. For example, its annual Green Week is an initiative that promotes sustainable living in a fun way. Sustainable energy tutorials also take place during Green Week.

To keep staff and students informed about energy consumption, reduction targets and energy saving achievements data is displayed on the college's sustainability notice board and online.

Curriculum

Serena Bacuzzi, the Sustainability Officer, has produced lesson plans on sustainability and an energy audit activity, which are shared with college tutors and course leaders. Although most courses at the college are non-academic, there are some where sustainability and technology can be integrated, namely Built Environment and Sustainability, Electrical and Electronics and Mechanical Engineering. For example, electric vehicles and their associated technology are studied in the automotive courses.

The future

The college has a continued commitment to reduce CO₂ emissions resulting from all energy types. This consists of the future upgrading of buildings and will include pipe-work insulation, additional thermostatic radiator valves, more double glazing, LED lighting and further sub-metering. Additionally, a curriculum mapping exercise is soon to take place, which will identify further opportunities to integrate sustainability into the teaching, and help to engage with even more students.

“Their approach to sustainability, energy saving and carbon reduction is at the forefront of good practice in the sector, and has the benefit of being a showcase for other colleges wishing to implement sustainability measures.”

Steve Sawbridge, Association of Colleges Energy



Students from North Warwickshire & Hinckley College proudly show off their solar panels



Maj Shaikh, IT Team Leader, has redesigned the IT facilities to reduce electricity use.



Steven Cheshire, Group Estates & Facilities Manager works with estate staff to ensure that energy use is reduced across all the campuses.



Students at North Warwickshire & Hinckley College use the smoothie bike during Green Week.

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