

## North Warwickshire & Hinckley College

### Continuous Improvement

#### An all-round approach to sustainability

#### About the project

##### Summary

Sustainability is about making changes and inspiring a new approach to the way we live in the world, use its resources and interact with the rest of the ecosystem. Sustainability is a philosophy of life, to which we need to educate the future generation. In 2010 North Warwickshire and Hinckley College appointed a Sustainability Officer whose role is to implement actions and initiatives aimed to spread this philosophy, with the ultimate purpose of educating its community to the principles of sustainable living and reducing the organization's impact on the environment. Since then the College reduced significantly its carbon emission and has attained substantial financial savings and improvement of the services and facilities for staff and students.

##### Project partners

Most of the sustainability initiatives launched at the College have been developed and created in-house, using internal resources. In most cases, we were able to realize some of the most expensive projects thanks to funding or non-capital investment opportunities received from third parties like Salix (for energy saving initiatives), Skill Funding Agency (SFA), Learning and Skills Improvement Service (LSIS), The Carbon Trust, Leicestershire County Council (for sustainable transport initiatives), British Gas (for installation of solar PV), Ofgem for Renewable Heat Incentive, the woodland Trust.

#### The results

##### The problem

How to engage the whole community in reducing the College's impact on the environment and cut carbon emissions?

##### The approach

Since 2010 the College has implemented sustainability improvement measures in various areas and of which some examples are listed below:

##### Sustainability Awareness for staff, students and the local community

- Launch of Green Week, an annual initiative aimed at the promotion of sustainable living. Various activities, stands, public talks, games, movies are organized throughout the week giving everybody the opportunity to learn about sustainability in different ways.



##### Profile

- FE
- 13,000 students (including full and part time students)
- 746 staff
- Urban

- Development of a network of sustainability champions recruited from various departments and among the students to help spread the sustainability message across the College and a Carbon Management Team meeting on a quarterly basis to discuss carbon reduction project ideas.
- Provision of Eco action games played during extra curricula activities and sustainability tutorials.

## **Sustainability Policies and Procedures**

- The College has a Sustainability Policy and a Sustainable Development Action Plan (SDAP) which outlines the core principles of sustainability and how they are embedded across various areas and departments.
- The College has committed to a target of reducing CO2 emissions by 35% by 2014/15 in comparison to the baseline emissions in 2009/10. The Carbon Management Plan is the framework which sets out the strategy and action plan for reducing carbon emissions, and describes the governance arrangements to keep the carbon reduction target among the organizational priorities.
- KPI is a document monitoring the progress of sustainability indicators over the years. The indicators have been chosen to represent all the key areas identified in the SDAP and CMP.

## **Education for Sustainable Development**

- NWHC has developed an in-house interactive, web-based learning resource specifically designed to address training needs on sustainable development. The project aims to promote and embed effective practice in sustainability through the use of E-learning. The tool is used internally for staff development trainings, students' engagement and for teaching and learning.
- A student-led project from Engineering and Motor-vehicle departments working together to create a smoothies bike. The bike was created by restoring an old bike and connecting it to a blender using a dynamo. The blender is run by the power of the pedaling, this enforces 4 sustainable messages at once: recycle, be healthy, be active and save energy.
- Energy walk-around tutorials. The activity involves carrying out energy audits around the building, switching off lights, computers and other unnecessary equipment and displaying energy saving posters and stickers in the most energy-wasteful areas.
- Use of the 50kWh solar PV array as a real-size learning resource for engineering students.

## **Reduction in resource consumption**

- Rainwater Harvesting and biomass boiler at the Hinckley campus,
- Building Management System (BMS) at Nuneaton and Hinckley campus to control heating remotely and reduce unnecessary gas usage,
- Computer power-saving software to shut down computers overnight,
- Multi-functional Device (MFD) printers in communal areas with swipe card printing, has helped to reduce the amount of printing and paper usage,
- Voltage optimisation and LED lighting installation at the Nuneaton campus,
- Installation of a 50kWh solar panel array on the roof of the Nuneaton campus.

## **Waste minimization, reuse and recycling**

- Banks of bins for paper & card, mixed recycling and general waste are installed across all College campuses.
- College Freecycle - Old stationary and unwanted items are collected so they can be redistributed to others around the college who can make use of them. By developing a system of re-use, waste is diverted from landfill and items are sourced in a more cost-effective and sustainable way.

# Finalist's case study

- Separate food waste collection for the kitchen and catering facilities.

## Promotion of sustainable transport

- Launch of a new private car-sharing scheme for staff at the College. Staff can log in their day-to-day journey onto the portal and look for colleagues to share their journey with. This offers significant savings by reducing the amount of business mileage claimed and reduces pollution and traffic in the local area.
- Installation of web-conferencing facilities to help staff and students to save time and limit unnecessary journeys.
- Provided new shower facilities and secure bike parking at the Harrowbrook Campus.
- Temporarily lease of 2 demo electric vehicles, including 1 electric car to be used for business journeys and 1 electric van for maintenance needs and post run. The vehicles are also used for curriculum purposes.

## Our goals

Reduce the impact of the College on the environment and achieve 35% carbon reduction by the end of the academic year 2014/15 in comparison to the emissions in 2009/10.

## Obstacles and solutions

Create a change in the College ethos	<ul style="list-style-type: none"> <li>• Sustainability as one of the organization values</li> <li>• Create sustainability policy and plan</li> <li>• Set goals and plan of action</li> <li>• Involve students and encourage them to share their view and ideas for improvement. They normally come out with good ideas and have the power to make things happen in the College.</li> </ul>
Getting everyone on board	<ul style="list-style-type: none"> <li>• Patience and determination, change behavior takes time</li> <li>• Simple and clear communication</li> <li>• Offer rewards</li> <li>• Share successes</li> <li>• Make it fun</li> </ul>
Financing the projects	<ul style="list-style-type: none"> <li>• Look for funding opportunities</li> <li>• Look at projects with an easy-win and short return on investment</li> <li>• Look at projects with no initial capital investment when possible</li> </ul>
Embedding sustainability in the curriculum	<ul style="list-style-type: none"> <li>• Make resources easily available for tutors and offer help</li> <li>• Share successes</li> </ul>

## Performance and results

Thanks to the sustainability initiatives implemented, the College has achieved significant savings in comparison to year 2009/10:

- 7.5% decrease in electricity usage and reduction of the annual expenditure from £2,443,307 in 2009/10 to £2,260,483 in 2013/14 despite the increase in energy prices. This is due to a combination of energy saving measures and awareness and better electricity contract deals.

- 42% reduction in gas usage and associated annual expenses from £168,474 in 2009/10 to £135,554 in 2013/14. This is due mainly to the replacement of a gas boiler with biomass, a better control of the heating settings and more economical gas contracts.
- 47% reduction in water usage and associated annual cost from £82,811 in 2009/10 to £60,738 in 2013/14. The result is attributed to the implementation of water saving devices and installation of rain-water harvesting at the Hinckley Campus.
- Carbon emissions have been reduced by 33% in comparison to the 2009/10 level, from 2,889 tonnes of CO<sub>2</sub> to 1,913 tonnes of CO<sub>2</sub>.
- Reduced paper usage by 14% since 2009/10 which equals approximately to 20 trees saved per year.
- The project aims to create a more sustainable learning environment for all our learners and deliver good practice by indirect learning.
- All projects have led to extensive improvements in the condition of the College's Estate and enhanced the learning environment, providing a more comfortable and safe place to work and study.
- Enhancement of the College image in its commitment to Sustainability.
- The success of the project provides encouragement for further energy saving initiatives to be developed within the College. It also can serve to other FE/HE institutions, stakeholders and the local community as a good practice example on how energy savings targets can be achieved from simple actions and small changes.

## The future

### Lessons learned

Bringing changes in an organization is always a challenge and a slow process, as it requires a big change in the habits and commitments from the people involved. Given the extension of the College, our biggest challenge was to make sure that everybody was on board and aware of the sustainability goals and carbon reduction target. The key performance indicators and the reduction in energy consumptions demonstrate that the work undertaken has produced tangible results. The key learning points from this project are:

- The importance of getting everybody in the organisation involved and contributing to the goal, including students, staff, executive members, governors, contractors and visitors.
- It helps to have a plan in place to allocate roles and responsibilities and set targets.
- Focus on projects that guarantee immediate savings, have a quick return on investment, are easy to implement and are visible to the College community. A project must be good for the environment, good for the College finances and give tangible and visible benefits to the community.
- Sustainability needs to be part of the day-to-day routine in the organization. It is important to make sustainability enjoyable, simple and shout out loud when achievements are met, even the smallest one to incentive more positive actions.
- Involve students and encourage them to share their view and ideas for improvement. They normally come out with good ideas and have the power to make things happen in the College.
- It takes time to introduce changes and even more to see results. Patience, determination and devotion are essential throughout the process.

### Sharing your project

The sustainability projects and initiatives have been publicized through the College media, like website, twitter and Facebook and with articles in the local press. For some specific projects we have provided case studies to the project partner organizations to be used widely across the sector. The College is AoC member and regularly

attends the regional Facilities, Estates & Sustainability meetings where we share successes and experience with colleagues in other FE institutions.

## What has it meant to your institution to be a Green Gown Award finalist?

Being shortlisted as Green Gown Award finalist was a real privilege for North Warwickshire & Hinckley College and for the Sustainability Officer personally. It is a great recognition for the hard work and commitment it's been put in the implementation of sustainability projects.

## Further information

Website: [www.nwhc.ac.uk](http://www.nwhc.ac.uk)

Twitter: [www.twitter.com/nwhcnews](https://www.twitter.com/nwhcnews)

Facebook: [www.facebook.com/official.nwhc](https://www.facebook.com/official.nwhc)