

Dundee & Angus College Carbon Reduction



'It's in our D&A'



Profile

- FE
- Approx 9,000 students (includes full and part time students)
- Approx 1000 staff
- Both Urban and Rural

About the project

Summary

Saving the planet, saving cash, shrinking the College's carbon footprint whilst, at the same time, stimulating staff and learners' imagination in terms of sustainability'

Dundee and Angus College has reduced its carbon footprint thanks to the development of a 5 year Carbon Management Plan in 2010. Significant financial investment in sustainable technologies as part of the College's Estates Development Programme, but also a dynamic, fun and inspirational approach to raising awareness among the learners and staff at the college, changing attitudes and behaviours in the process.

Project partners

Dundee and Angus College have engaged with a number of partners throughout the last 5 years and include a local company - Angus Biofuels who fully funded the installation of our 1MW Woodchip Biomass Boiler.

The College is also supported by the Scottish Funding Council via Capital Grant funding which is provided on an annual basis.

Other funding partners have included Energy Saving Trust and the European Regional Development Fund, but we have also had excellent support from external partners that have included - Vegware, Coffee Conscience, Energy Perspective, Fairtrade along with many others.

The results

The problem

Dundee and Angus College has demonstrated its commitment to reducing its carbon footprint through the development and implementation of its Carbon Management Plan.



Since 2010, the greatest challenge of our ongoing campaign has been and continues to be the effective consultation and engagement with our staff and students and FE students in particular tend to be transient. Our carbon reduction successes via our sustainable technologies all mean nothing if we can't inspire and motivate students and staff to change their behaviours and to also contribute to the reducing not only the College's carbon footprint, but to also to promote these values in their wider communities and families.

The approach

Dundee and Angus College signed up to the Universities and Colleges Climate Commitment for Scotland (UCCCfS) and developed a 5 year Carbon Management Plan to assist with reducing its carbon footprint by 25% over the period of the plan.

Sustainable design has long been a fundamental consideration around the development of the College estate and a range of sustainable technologies have been introduced. But the College also started to look at specific sustainable projects and decided to invest in solar panel technology, solar thermal, a programme of gas boiler replacement, installation of double glazing, LED light replacements, real-time energy monitoring and others.

Some of these projects were implemented mainly out of necessity, but the majority were developed and implemented on a '**spend to save**' basis with a maximum payback period of no more than 7 years. Dundee and Angus College were also fortunate to have the installation of a 1MW biomass boiler installation fully funded by an external partner.

The success of achieving our carbon reduction target however is not simply down to investment in the range of sustainable technologies; it has been about effective staff and learner engagement and awareness raising.

The Estates team has worked closely with the Learner Engagement team and Student Association to raise awareness throughout the 5 year plan. FE students tend to be transient and so engaging with them at their induction was crucial and has proved to be a successful approach to raising awareness. The year on year carbon reduction successes have been used to inform, inspire and motivate new learners to buy in to the College's sustainability agenda.

Marketing our successes and commitment to carbon reduction was also key and a campaign was developed whereby posters were displayed in every classroom and staff workroom as a reminder to staff and student to 'Shut Down and Switch Off' at the end of the learning and working day – the posters also displayed the energy and financial reductions that had previously been achieved to highlight the impact that simple functions could have.

Our goal

Dundee and Angus College's goal was to reduce its carbon footprint by 25% in line with the objectives set in their Carbon Management Plan over a five year period.

Obstacles and solutions

<ul style="list-style-type: none"> • Staff and Students 'buy-in' 	<ul style="list-style-type: none"> • a dynamic, fun and inspirational approach to raising awareness among the learners and staff at the college, changing attitudes and behaviours in the process. • College Executive and Senior Management team endorsement.
<ul style="list-style-type: none"> • Educating, informing and involving staff • Educating, informing and involving staff 	<ul style="list-style-type: none"> • Posters campaigns to inform staff and students of annual utilities spend were posted in classrooms, workshops and public areas throughout the campuses. • Environmental awareness raising presentations to staff and students • Real time energy monitoring system displayed on big screens on each campus showing energy usage, cost and carbon data. • Poster updates informing staff of savings achieved • "Big Switch Off" weekends, where everyone was reminded to switch off electrical equipment. At the end of the day staff and student volunteers then swept the buildings to ensure everything was powered down.
<ul style="list-style-type: none"> • Funding a sustainable project 	<ul style="list-style-type: none"> • Developing partnerships with external stakeholders to attract funding for sustainable projects. • Developing business cases in support of specific 'spend to save' sustainable projects • No cost/low cost initiatives such as presentation, poster campaigns and dedicated green weeks.

Performance and results

Our carbon reduction data demonstrates that the investment in the range of sustainable technologies along with the students and staff 'buy in' has resulted in our significant carbon reduction successes to date.

At the start of our sustainable journey in 2010, our combined carbon footprint was **6332 tCO₂e**. Our annual gas consumption was **11,374,120 kWhs**; our electrical consumption was **5,266,186 kWhs** and our water consumption was **50,900m³**

At the end of year of our 5 year plan our combined carbon footprint for 2014/15 was down to **3827 tCO₂e**. Our annual gas consumption was down to **8,550,886 kWhs**; our electrical consumption was down to **4,306,476 kWhs**; and our water consumption was down to **42,247m³**.

Carbon footprint relating to waste and travel also dropped from **318 tCO₂e** in 2010 to **178 tCO₂e** in 2015.

Partnership working and engagement with the staff and students Student President and Student Association also assisted greatly in engaging effectively with the students.

The savings generated will be re-invested in the future development of the College estate and in particular systems and equipment which will assist in further reducing our carbon footprint.

The future

Lessons learned

Together we can make a difference. By including both staff and students and keeping them up to date with savings (or lack of), we are able to make a bigger impact than trying to do it on our own. Support from the Principal and Senior Management team was also critical to the success of the campaign, in particular investment in sustainable systems and equipment that have short payback periods.

Sharing your project

Our successful ongoing presentation and poster campaigns will be continually updated and shared with staff and students. We are confident we can reach at least 90% of all staff and students with this approach.

Our commitment to carbon reduction is also firmly embedded within the College staff and academic staff in particular play a significant role in promoting our philosophy when new students start each year. It is very satisfying to know that our campaign has inspired and motivated some academic teams to include sustainability as part of their courses.

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

Dundee & Angus College are extremely proud to be a finalist in the Carbon Reduction category. The Green Gown Award Finalist recognition is a fitting endorsement for the College Environment team, staff and students who have embraced the College's drive to reduce its carbon footprint with passion and enthusiasm.

It has also further enhanced our reputation within the FE Sector, as well as with our external stakeholders and the wider community.

Further information

Billy Grace
Head of Estates
Dundee & Angus College
Kingsway Campus

Jackie Beresford
Environmental Officer
Dundee & Angus College
Arbroath Campus

w.grace@dundeeandangus.ac.uk

j.beresford@dundeeandangus.ac.uk