




SevernWye
ENERGY AGENCY



*Creating a **Sustainable Energy Strategy**
and CO₂ Reduction Action Plan with
stakeholders across Swindon*



Supported by:

Intelligent Energy  Europe

Innovative Thinking

Background to the project

In December 2007 Swindon Borough Council joined Stroud District Council, Severn Wye Energy Agency (SWEA) and seven other European communities in an Intelligent Energy Europe project that set out to develop new and innovative methods for delivering carbon emission reduction actions across the Borough.

The project, called Innovative Thinking, focused on engaging and working with a range of stakeholders across the community to develop a shared **Sustainable Energy Strategy and Action Plan** that would drive activity on carbon emissions reduction.

Experiences, both good and bad, were shared with European partners in a series of study tours, workshops and seminars over the course of the 30 month project.

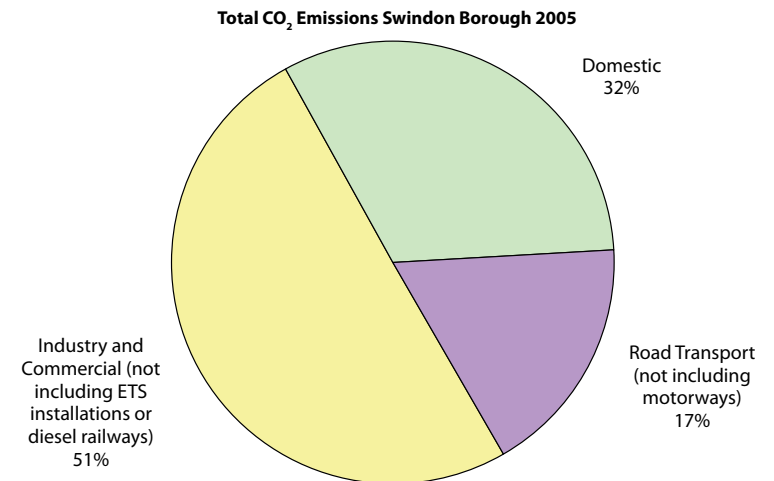


Figure 1: CO₂ emissions breakdown

How the project worked in Swindon

The Innovative Thinking project was split into several distinct work packages that enabled the Council to develop a strategy and action plan that would target the sectors with the highest emissions.

The first stage was to produce an Energy Status Report to assess energy use across the Borough (see breakdown of emissions by sector in Figure 1) and identify the sectors that needed most attention.

The second stage was to engage stakeholders from those sectors and develop a joint **Sustainable Energy Strategy and Action Plan for Swindon** to reduce energy use and to cut emissions.



As the business and public sectors were seen to be responsible for around 50% of total emissions (2005 data) key decision makers, council officers and local businesses were invited to a series of events, seminars and international workshops (see below for further details). Feedback from the events and results of activities in other European partner countries was then used to inform the development of the Swindon Strategy – the document has been signed by the Council and will be used to drive carbon emission reduction activity in the Borough.

A final **implementation phase** of the project also gave the council the resources to carry out feasibility work, develop procurement guidelines and run training sessions to start to implement actions identified in the strategy.

Outcomes of the project

Sustainable Energy Strategy and Action Plan

The sustainable Energy Strategy for Swindon sets out a **9.2 % reduction in carbon dioxide emissions** from 2005 (baseline year) to 1st April 2010 as well as committing to **5MW installed renewable energy** and heat generation by 1st April 2010.



The strategy lists 8 key objectives for the council as follows:

- Raise awareness of sustainable energy issues;
- Improve the energy efficiency of all Swindon's homes;
- Improve the energy efficiency of non-domestic buildings;
- Substantially reduce fuel poverty across the Borough;
- Increase the use of small scale low carbon technologies;
- Encourage greater use of sustainable energy as a key element to delivering sustainable communities;
- Identify key new developments as exemplars demonstrating sustainable energy and design solutions which minimise the need for energy;
- Encourage a thriving, low carbon economy based on sustainable energy.

In order to meet these objectives a detailed Action Plan sets out specific activities with milestones, timescales, resources and responsibilities detailed. These actions include:

- Install renewable energy technologies on 6 public buildings as well as the Stanton Park Rangers office by March 2010;
- Carry out renewable energy installations in 10 Swindon Schools by the end of 2010 - technologies being considered for these schools include photovoltaics (solar electricity) for many of the schools, solar thermal (for hot water) and wind turbines for some of the schools;
- Implement The Swindon Standard to deliver 15% CO₂ emissions reduction in new schools, public buildings and residential developments of 10 buildings or more by 2013;
- Implement a wood pellet project which diverts waste from landfill, provides employment and training and will meet a market demand for wood fuel;
- Ensure the Swindon Transport Strategy includes a number of measures to effect the transition to a 'low energy Swindon'.

The strategy has been adopted by the Council.

European Exchanges

Councillors and officers from Swindon Borough Council were involved in a number of exchanges and intra-community workshops with partners from other European countries.

One of the exchanges included a study tour and workshop for councillors held in West Sweden. The tour included a visit to a solar thermal and biomass district heating scheme and new flats built to passive house standards. Councillors from the Borough also attended a workshop with key decision makers from the other European communities.

Other highlights included a visit to an ultra low energy school in Holland and the chance to visit a number of anaerobic digestions plants in central Spain.



Final Conference

A final conference was held in Brussels which brought together representatives from all of the partner communities to reflect on the lessons learnt from the project and develop a booklet of best practice examples. The event was held as a side event to the Energie-Cities annual conference and attracted 53 participants and included innovative interactive workshops.

Conference workshops gave participants the opportunity to put on the 'hat' of someone other than themselves to see challenges from another point of view. In one of the workshops, participants started off by 'becoming' groups of stakeholders; local citizens, school children, small businesses and NGOs. Within these groups, they had to consider how the Local Authority could successfully engage with these stakeholders and encourage them to sign up to community carbon reduction targets. Many innovative ideas were discussed, along with the methods of implementing them. Examples include: cleverly designed climate funds to encourage small businesses to implement energy efficiency measures and to promote their green credentials; effective information campaigns; and 'ice-cream bikes' for children to learn about energy production and use.



After choosing the best idea from each of the stakeholder groups, all groups had the opportunity to act as the Local Authority and devise implementation plans for any of the chosen ideas. More innovative ideas were conceived, including linking the (primary) school children's energy bike to a design project for college students, with sponsorship from businesses, linking in to the business climate fund.

Participants in the workshops felt that it was important and enlightening to see the CO₂ reduction targets from the point of view of other stakeholders, consider the issues for different sectors of society and devise ways in which Local Authorities can most effectively engage with other stakeholders.

Local Seminars

In order to inform local businesses of the importance of the Borough's CO₂ emission reduction targets, and how businesses might be able to help reach these targets at the same time as saving money, a **lunchtime business seminar** was organised at Kembrey Park, a relatively new business centre in Swindon.



Businesses were invited to listen to ideas on finding out where energy is used within the business, why it is worth reducing energy use, and the most effective ways to cut energy consumption.

Swindon Borough Council staff were also invited to a **Green Champions Energy Saving Training** session to learn about energy saving at work and at home, and how the Champions might engage other staff in reducing the Council's energy consumption.

Feasibility Studies

Two feasibility studies were carried out in the Borough as part of the implementation phase of the Innovative Thinking project:

Stanton Park Ranger's Office

The Ranger's office building at Stanton Park was assessed for the feasibility of incorporating renewable energy systems into the refurbishment of the building.

The building, which is used as the Park Rangers' office, a volunteer base, community meeting place and public toilets, is currently heated by individual electric heater and has solid stone walls and sloping ceilings on the upper floor, therefore limiting insulation opportunities. The building has been undergoing improvement work, including upgrades such as double glazing.

SWEA carried out a feasibility study into the potential for using biomass (wood fuel) as the main heating system for the Ranger's office. Both wood pellet and wood chip boilers were investigated. Considerations included the output of the system required, the size of the fuel store needed, access and the supply chain options for the two fuels.

Possible sources of grant funding were also identified in the report.



Swindon Library

Swindon's new Central Library is a 4 storey building replacing the original single storey building on the same site in the centre of Swindon. In building the new library, Swindon Borough Council aimed for a very environmentally friendly building, and were successful in not only achieving a BREEAM 'Excellent' rating (the highest rating), but also winning a BREEAM Bespoke Award in 2007.



Some of the key environmental features of the new building include:

- Natural ventilation via passive stack ventilation;
- Solar water heating;
- Sophisticated lighting and heating controls;
- No refrigerants used in cooling strategy;
- Rainwater harvesting and recycling;
- Use of A-rated products and FSC certified timber;
- Good transport links.

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