

Review of progress

The council's Energy, Change and Opportunity Strategy (published in 2011) sets out the council's strategy to reducing emissions and dealing with unavoidable climate change. The council's climate change adaptation plan was published in 2012 and its second carbon management plan was published in 2014. An energy resilience action plan is currently being prepared.

The council has been taking action on a number of fronts to tackle climate change. Progress is set out below:

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1. Reducing the council's carbon footprint and energy costs

The latest data for 2013-14 energy consumption, including trends since 2010, is set out at Appendix 2. The council is taking action on a number of fronts to reduce its energy spend and carbon footprint as set out in the latest [Carbon Management Plan](#) 2014-17.

Smart metering

The council has installed smart meters across its estate. The data from these meters helps establish where progress has been made and areas that need to be focussed on. The council has been certified to the ISO 50001 standard for its Energy Management System. This involves measuring current energy consumption levels and showing continuous improvement in tackling them.

Invest to save programme

The council has established an invest to save programme for carbon reduction. Energy efficiency projects have been identified across the estate, and a revolving carbon reduction fund has been set up.

Total spend (including planned spend in 2014-15):	£ 4.1million
Total cost savings (including from planned spend):	£ 0.73 million
Total carbon reduction (including planned spend):	2,475 tCO ₂
Total Projects:	112

Overall Performance (including planned)

Fund simple payback: 6.7 years

Total cost of carbon reduction: £ 1,583 per tCO₂

Energy efficiency projects installed on our estate in each community area:

Area	# Projects
Amesbury	6
Bradford-on-Avon	2
Calne	1
Chippenham	17
Corsham	3
Devizes	13
Malmesbury	6
Marlborough	11
Melksham	6
Pewsey	2
Salisbury	24
Tisbury	1
Trowbridge	11
Warminster	2
Fleet projects	2
TOTAL	112

Project technologies used:

- Lighting (LED, induction, T5)
- Insulation (loft, cavity wall, pipes)
- Controls (lighting, new buildings, efficient motor controls)
- Combined heat and power (CHP)
- Boilers (more efficient gas boilers, biomass boilers, oil to gas conversion)
- Pool covers
- Draught proofing
- Voltage optimisation
- Heat recovery
- Air source heat pumps
- Telemetry
- Solar photovoltaic panels
- Hybrid, ultra low emissions and electric vehicles
- Mini district heating
- Telemetry

A biomass boiler has been installed at Corsham campus and systems are being designed for two further campuses and an outdoor education centre. All are scheduled to be completed by December 2015.

A peer review of other local authorities places Wiltshire Council in leading position, with 16 biomass systems across a variety of scenarios (see schools update below) with commensurate technical understanding in-house.

2. Working with schools

School energy reduction

The council has installed smart meters in all schools where technically feasible, ensuring that electricity and gas consumption can be tracked remotely and used for educational purposes.

The council has run a number of programmes in schools as follows:

- In autumn 2011 Wiltshire Council ran the Collaborative Low Carbon Schools Service programme in partnership with the Carbon Trust. It worked with 12 schools to advise on reducing energy costs and carbon emissions. It was a huge success with one of the schools, Pewsey Primary, beating 30 schools to win a national award. Of the Wiltshire schools that participated, 70% made a saving. Savings of 184 tonnes CO₂ and £31,318 (plus CRC savings of £2,213) were identified with no additional investment by the schools.
- In 2012/13, the council ran the 'Cut Carbon Cut Costs' programme, working with eleven schools in the Trowbridge cluster helping them to save energy.
- The council also ran the Young Energy People Scheme with Hardenhuish School in 2012. Through this scheme, students carried out an energy survey and reported to the senior leadership team and governors. A number of measures have been implemented as a result, ranging from boiler conversions to LED lighting and new insulation.
- Through the EU funded [SEACS](#) programme, an energy ambassador was employed for 18 months to work with schools from late 2012 to early 2014. Nine schools received in depth support from the SEACS ambassador and reported savings on electricity of up to 40%. Ad hoc support was provided to a further three schools, and resources and videos were produced for use by all schools.

A number of the invest to save projects listed in section 1 above have been installed in schools, with the school paying back savings to the council's revolving fund.

Oil to biomass conversion programme

The authority has also invested in an ambitious programme of biomass boiler installations in twelve schools which were previously heated by oil. Income is guaranteed to the council from the government's Renewable Heat Incentive (RHI) over a 20 year period. Schools will save on their running costs as heating oil is more expensive than biomass.

The authority currently has installed and commissioned three systems at Tisbury St John's School, Rowdeford School and Tidworth Clarendon Juniors School. There are a further five sites where biomass is in final stages of installation and commissioning, one of these being a large secondary school, Hardenhuish. All installations are due to be complete by the end of 2014.

3. Working with households in Wiltshire

Home insulation schemes and boiler replacements

Working in partnership with Severn Wye Energy Agency, Wiltshire Council ran the **Warm and Well Scheme** from 2010 to 2014. This scheme gave householders the opportunity to have replacement boilers or their lofts and cavity walls insulated for free, or at a significantly discounted rate depending on their circumstances. This simple, yet effective, service proved to be very popular with residents with more than 1,649 measures being installed in 1,430 homes across the county. This has resulted in £712,000 of improvements to Wiltshire's housing stock, of which energy companies contributed 71% and clients contributed 9% of the costs, leaving Wiltshire Council to fund 20% of the total.

The council is replacing standard 65% efficient gas boilers in council housing with new 90% efficient condensing boilers. This has the effect of reducing the CO₂ emissions of each property by 1.025 tonnes per year. To date, 713 boilers have been replaced, which equates to a reduction of 731 tonnes per annum of CO₂ production. The council is committed to replacing approximately 2,500 boilers by 2018 giving a total reduction of 2,562 tonnes per annum.

The council is intending to install solar photovoltaic panels at the Nadder Close sheltered housings scheme in Tisbury. This 20KW (80 Panel) installation should result in a saving of 10.2 tonnes per annum of CO₂.

The council is also planning to install solar photovoltaic panels on each of the 23 bungalows at the Parsons Green sheltered housing scheme in Shrewton and replace the existing oil fired communal heating system with individual air source heat pumps serving each bungalow.

Project ACHIEVE - ACtions in low income Households to Improve Energy Efficiency through Visits and Energy diagnosis. This unique three year project, the only one of its kind in the UK, trained unemployed people to make home visits and give energy saving and income advice to vulnerable householders in Wiltshire. The project ran from 2011 to June 2014. Nine advisors were trained in total. Energy saving devices such as low energy bulbs, TV power downs and reflective radiator panels were installed in 206 households. The majority of visits were undertaken in households made up of persons over 60 and many clients lived alone. 188 clients (91%) were in receipt of an income related benefit.

Collective energy switching

The council bid for and received £60,000 government funding in 2013/14 to launch and promote collective switching for energy bills. To date 2,100 households in Wiltshire have taken part in the [Ready to switch](#) scheme. Depending on the offer, between 10 and 20% are accepting the offer to switch. In the last round of switching registrants who could make a saving were looking at an average saving of £133 for a dual fuel switch.

Energy monitors in libraries

Between 2010 and 2013, all of the county's libraries (including mobile libraries) stocked energy monitors available for the public to borrow, allowing residents to keep an eye on their energy use. This proved to be an extremely popular initiative with some libraries reporting waiting lists to deal with the high demand and almost 700 monitors borrowed over a 12 month period.

Sustainable transport

The council received £4.25 million from the Local Sustainable Transport Fund in June 2012.

The fund is being used for:

- The Transwiltshire rail project
- The Connecting Wiltshire website and associated projects
- Personalised Travel Planning
- Various marketing and promotional events/stuff
- Other associated projects
- £60k is allocated for electric vehicle charging points on station car parks at Bradford on Avon (installed), Chippenham, Trowbridge and Westbury (yet to be installed)

Rapid charging points for electric vehicles

£225,000 was received in 2013/14 for rapid charging points from the government's Office for Low Emissions Vehicles (OLEV). The council provided 25% match funding. Rapid charging points are due to be installed in the following six council car parks by September 2014, for use by the general public:

- Melksham: King Street SN12 6HB
- Trowbridge: Duke Street BA14 8AE
- Corsham Post Office Lane: SN13 0BS
- Salisbury: Brown Street SP1 1HE
- Warminster: Station Road BA12 9BR
- Chippenham Gladstone Road: SN15 3DW

The council has also received £180,000 from OLEV in 2014/15 for charging points at campuses.

4. Working with Wiltshire businesses

Energy efficiency and renewable energy installers network

The council has partnered with Severn Wye Energy Agency and Gloucestershire local authorities to develop the [Link to Energy](#) installers network. This is a free-to-use online database helping householders to find sustainable energy installers and tradespeople in their area.

Business awards

The council has supported the Wiltshire Wildlife Trust's corporate green awards and Salisbury Chamber of Commerce Green Business award since 2010.

Developing the biomass heating industry in Wiltshire

Through a dedicated part time biomass officer, the authority has supported and built good links with thirty biomass-related businesses (installation and feedstock/fuel supply); this represents almost all Wiltshire based biomass businesses. The officer also provides technical and market situation support to internal programmes (strategic energy planning and inward investment), community, private and third sector groups. This has directly led to several feasibilities and around ten biomass installations in a range of situations from golf clubs to large houses and agricultural holdings.

The authority has also completed a study into the economic value of the timber and forestry sector in Wiltshire. This new work provides strong thematic evidence to inform a range of interventions to support the rural economy and job creation. The work has further informed the advancement of European Structural Investment Fund Activity 2.3 *Innovation for Natural Capital – investing in natural capital, landscape and environment*. This has in turn resulted in new partnerships with the Local Nature Partnership, LEADER groups and Forestry Commission as projects are developed to secure funding for sustainable rural economic growth. It is understood from partners that Wiltshire is a leading position with no other local authorities in the South West having such a strong evidence base.

Development of district heating opportunities

The council built a partnership with Defence Science Technology Laboratories (Dstl) and Public Health England (PHE) at Porton Down to complete a bid to the Department of Energy and Climate Change's (DECC) Heat Network Delivery Unit. In June 2014, the council secured £53,600 to carry out detailed energy mapping, masterplanning and technical and financial feasibility study to fully understand the future potential for an efficient energy network at Porton Down. The council is providing 33% match funding.

The study will identify more efficient ways to heat, power and cool the operations at the site through the local generation of energy and reuse of waste heat in buildings. It is likely that significant energy savings can be made which it is hoped will reinforce the case for consolidation and further investment in Life Science activity at Porton.

Solar photovoltaic installation at Westbury resource recovery centre

The council has worked in partnership with Hills Waste to install the largest single-roof Local Authority-owned solar panel system in the UK on the new Northacre Resource Recovery Centre (RRC) in Westbury. The 1,248 solar panels – covering an area equivalent to more than seven tennis courts – will generate over 280,500 units (kWh) of electricity each year. This electricity, all of which will be consumed on site at Northacre RRC, will help to power the mechanical biological treatment process used to turn household waste into solid recovered fuel in place of it being sent to landfill.

The benefits of the solar panel system to Wiltshire Council are significant, with annual bill savings and income from the Feed-in Tariff of over £55,000, as well as annual CO₂ emission reductions of 148 tonnes. Over 20 years the benefits are expected to exceed £1.5 million, and avoid CO₂ emissions of over 2,720 tonnes. Crucially for a plant such as Northacre RRC with a high energy requirement, the unit price of electricity produced by the panels over the system's 25 year life is significantly less than the current rate for grid supplied electricity.

5. Working with communities in Wiltshire

Through the EU funded SEACS programme, an energy ambassador was employed for 18 months to work with community groups. 27 events were organised or attended to promote the energy saving message, reaching an estimated 1,500-2,000 participants.

Community projects and materials are as follows:

Affordable warmth: Marlborough has the potential to provide an exemplar of how communities can participate.

Promotion of biomass: An initial pilot Woodfuel Safari, based on the Devon model.

Energy retrofitting of community buildings: 10 pilot energy audits carried out in partnership with Community First, Community First

Cosy Homes: developed first through the Transition Marlborough draught-busting work, and refined through working with Melksham Energy Group, to concentrate on problem areas.

Green Doors/ Green Open Homes: Two Green Doors events in 2014, with a total of 28 homes opening to visitors, following the South Wiltshire pilot led by the Wilton Community Land Trust in 2013 and supported by SEACS.

A further three groups are considering organising similar events in future.

Green Fairs and other energy events: At least five events planned for 2014. Audiences vary from 50 to 200+. SEACS has provided some help with publicity, identifying stall-holders etc. Materials available: Green Fairs Top Tips, list of county environmental organisations, energy display and leaflets.

Promotion of LED bulbs: Developed by Melksham Energy Group, with SEACS funding, and is now available on loan to others.

Thermal imaging: Six Wiltshire groups already had some experience of thermal imaging (TI) when the SEACS project started, with some also owning their own cameras. Training to increase technical skills was provided through SEACS in winter 2103, and the council camera loaned out to groups. TI has been used to support the Marlborough Affordable Warmth project, and as part of Green Doors information, with future plans to use it to develop very local street action (Bradford on Avon) and in promotion (Devizes).

Transition Streets: A member of Transition Marlborough attended Transition Streets training as part of SEACS, and is currently seeking funding to take this forward.

Video training: This was provided for Transition Marlborough, who had received a grant to buy a video camera but lacked the skills to make the most of it.

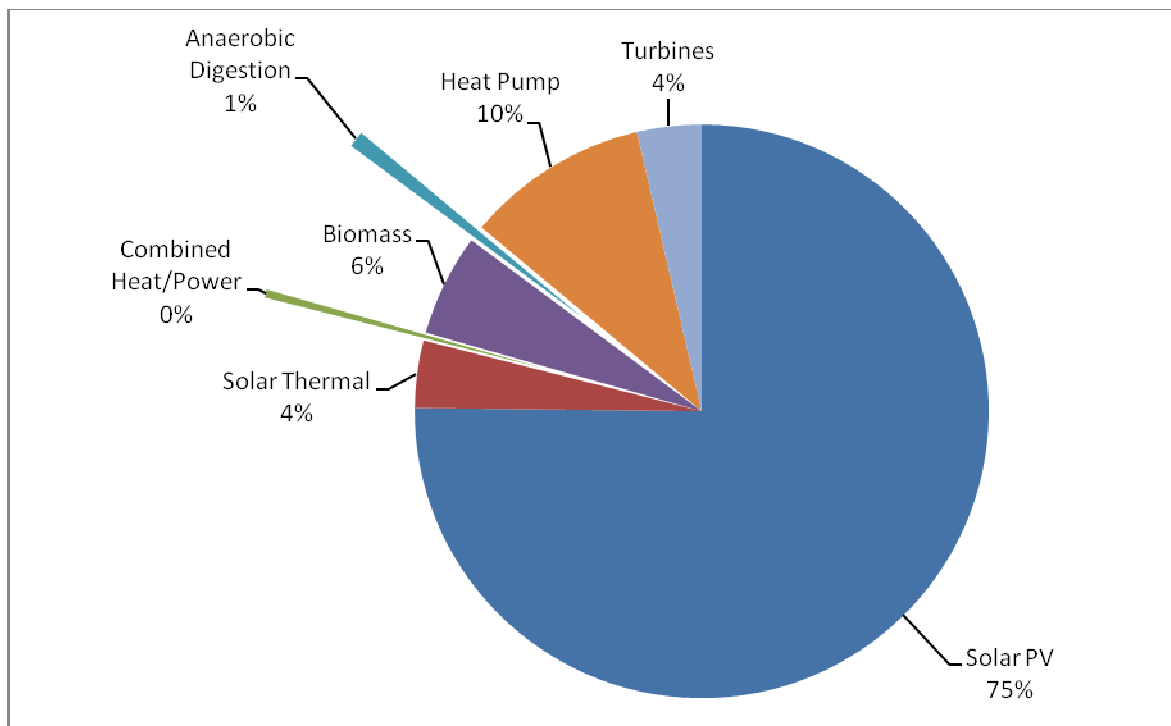
6. The council's role as local planning authority

Wiltshire Core Strategy

Core policies 41 and 42 specifically encourage renewable energy and sustainable construction in the county. The Core Strategy is expected to be adopted later in 2014.

Planning applications for renewable technologies

Since 2009, the council has received 661 applications for renewable technologies. Three quarters of these applications were for solar photovoltaics (PV) as illustrated below. 93% of all applications for renewable technologies were approved.



Planning applications received by technology type