

Low Carbon Environmental Strategy

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Foreword

Executive Summary

The UK Government vision is for a thriving, globally competitive, low carbon economy to be achieved through comprehensive action at a local as well as national level. The UK needs to become less reliant on imported fossil fuels to maintain security of energy supplies and so we are less exposed to higher and increasingly volatile energy prices in the future. The Climate Change Act 2008 established a long-term framework to tackle climate change by encouraging the transition to a low-carbon economy in the UK through unilateral legally binding emissions reduction targets.

The transition to a low carbon economy is essential for the competitiveness of our business community and local economy. It provides an opportunity to reduce operating costs, develop new technology, products and services and create jobs.

The transition needs to be achieved whilst minimising costs to consumers, particularly those in poorer households who are more vulnerable to the risk and consequences of fuel poverty. The latest official fuel poverty figures (defined as those needing to spend more than 10% of household income on energy) released by the Department of Energy and Climate Change (DECC) show 3.54 million households in England in fuel poverty in 2010. In Cherwell in 2010, 5,447 households were considered in fuel poverty (9.70% of overall population). There is much that can be done to address the problem, to improve the thermal efficiency of dwellings and to raise awareness of how people can keep their costs down by using energy wisely.

Cherwell District Council intends to lead by example, we will continue to work to reduce our impact on the natural environment and limit our use of natural resources. Our target is to reduce CO₂ emissions from our own operations by 22% from a 2009/10 baseline year by the end of financial year 2014/15. This equates to a reduction of 1195 tonnes of CO₂ over 5 years.

We will continue working with our partners in the public, private and voluntary sectors to encourage and support others in the district to reduce their own impact on the natural environment and limit their use of natural resources.

The Green Deal will be introduced in late 2012; Minister of State, Greg Barker has described Green Deal as 'the biggest improvement programme since the war' and aims to improve 14 million homes by 2020. The Council is taking a proactive approach, working collaboratively to create a Community Interest Company that will provide a local delivery mechanism for the Green Deal.

This is a strategy of the Cherwell Local Strategic Partnership, its aim is for Cherwell district to make the transition to a low carbon economy. There is a lot going on across Cherwell already and we showcase just a few examples in this document. We applaud community led initiatives and will provide encouragement and support where needed to enable individuals, businesses and communities to make their own transition.

"Every step the UK takes towards building a low carbon economy reduces our dependency on fossil fuels, and on volatile global energy prices. The more we can shift to alternative fuels, and use energy efficiently, the more we can ensure that our economy does not become hostage to far-flung events and to the volatility of market forces"

Ed Davey, Secretary of State for Energy & Climate Change

Introduction

The UK Government vision is for a thriving, globally competitive, low carbon economy; comprehensive action at a local as well as national level will be critical to enabling the achievement of the Government's climate change objectives such as those set in the Climate Change Act.

The Climate Change Act 2008 established a long-term framework to tackle climate change by encouraging the transition to a low-carbon economy in the UK through unilateral legally binding emissions reduction targets. This means a reduction of at least 34% in greenhouse gas emissions by 2020 and at least 80% by 2050. These targets are broken down into carbon budgets each covering a five-year period. By setting out the trajectory to our 2020 and 2050 targets through carbon budgets, the government aims to provide, a clear, credible, long-term framework for the move to a low-carbon UK economy, and give businesses and individuals the direction and certainty they need to play their part.

The Carbon Plan, published in December 2011, sets out how the UK will make the transition to a low carbon economy while maintaining energy security, and minimising costs to consumers, particularly those in poorer households.

The Carbon Plan aims to move us to a much more efficient, low carbon and sustainable economy, through which the UK will become less reliant on imported fossil fuels and less exposed to higher and more volatile energy prices in the future.

We urgently need to make the transition to a low carbon economy to address the global challenges of climate change, diminishing fossil fuel reserves and natural resources. We all need to minimise our impact on the environment as failure to do so will have serious consequences for our economy as well as our physical environment.

Transforming to a competitive low carbon economy is an overarching objective of the Council's economic development strategy ("Economic Development Strategy for Cherwell, North Oxfordshire 2011 – 2016"). This will involve a number of actions including the development of 'green technologies' and 'green knowledge'; working with industry to support innovation in alternative energy sources; as well as maximising opportunities to develop practical solutions to mitigate the impact of climate change and achieve competitive, green business practice.

The UK is heavily dependent on imports of fossil fuels to power our homes and businesses and to move us as well as goods and services around. With reserves being depleted and many challenging to access and often lying in conflict-ridden areas of the world, the security and cost of our supply is a growing concern.

This transition to a low carbon Cherwell will be challenging but it also brings opportunity to:

- **Use resources efficiently minimising wastage**
- **Improve energy and fuel efficiency**
- **Reduce operating costs of our homes and businesses**
- **Serve local needs from local production and services**
- **Harness energy locally from natural, renewable sources**
- **Protect and enhance our local environment**
- **Build resilience to a changing environment**

Approximately 622,000 tonnes of CO₂ emissions originated from road transport sources in the district in 2009. We need to reduce these emissions, reduce local air pollution from traffic sources and reduce congestion.

We have seen domestic energy prices more than double since 2004, with the household energy bill rising from £522 in 2004 to £1252 today. Energy prices are predicted to continue to rise putting increased pressure on household and business budgets, leading to increased costs to consumers for goods and services.

Rising energy prices impacts on us all but is particularly difficult for those who are on low income, or in poor health who may need to spend a higher proportion of their household income on energy to heat and power their homes. In 2010 over 24,000 excess winter deaths in the UK were attributed to cold, we know that for many, adequate warmth within the home wasn't achieved. The latest official fuel poverty figures (defined as those needing to spend more than 10% of household income on energy) released by the Department of Energy and Climate Change (DECC) show 3.54million households in England in fuel poverty in 2010 (17.04% of overall population), a slight decrease compared to 2009 (18.4%) but still well above the figures for 2004 that stood at just above 1.2million. In Cherwell in 2010, 5,447 households were considered in fuel poverty (9.70% of overall population) a slight decrease from 2009 (10.80%) and below the Oxfordshire average (10.92%). While we may be unable to prevent energy price rises, there is much that can be done to improve the thermal efficiency of dwellings and to raise awareness of how people can keep their costs down by using energy wisely. As highlighted in the Council's recently released Housing Strategy (Cherwell Housing Strategy: 2012 – 2017 Enterprise ~ Innovation ~ Opportunity), Cherwell's Private Sector Housing Team has a range of interventions (advice, support and enforcement) to tackle fuel poverty including grants for insulation and central heating, being a member of the board for the Flexible Home Improvement Loans Partnership (and thus brokering this opportunity for local people) and jointly commissioning an Affordable Warmth Network so that local residents can access advice and information on affordable warmth.

Area	All Households (2010)	Fuel Poor Households (2010)	Per cent Fuel Poor (2010)
Cherwell	56,306	5,447	9.70%
Oxfordshire	256,470	28,004	10.92%
England	21,599,926	3,535,932	17.04%

There is more to moving to a low carbon economy than reducing and greening the energy we use to power our homes and businesses and to fuel our mobility. We all need to be mindful of the embedded carbon in what we buy and what we throw away. The Council will continue to promote waste minimisation, to encourage reuse and to improve still further on the high levels of recycling.

We mustn't forget the important role that our natural environment, in particular our woodlands, play in capturing and storing carbon, therefore reducing the amount being added to atmospheric CO₂ concentrations which are causing our climate to change. The Corporate Biodiversity Action Plan (BAP) "Protecting and Enhancing Cherwell's Natural Environment" is reviewed and updated annually and sets out how we will fulfil our biodiversity duty under the Natural Environment and Rural Communities (NERC) Act 2006 and meet other legislation and policy requirements. One of the actions within the Biodiversity Action Plan is to continue to support the Oxfordshire Woodland Project which has "sequestration of carbon" as a key priority alongside promoting the use of wood fuel as a local and

renewable energy source. A social and environmental benefit of woodland is the extent to which it can contribute to reducing CO₂ in the atmosphere by locking up carbon through carbon



Rural Strategy priority 5.

Ensure that policies addressing climate change and the carbon challenge do not treat rural areas unfairly, and indeed recognise and promote the contribution which rural areas can make.

sequestration. Cherwell has the lowest percentage of woodland in Oxfordshire, which is itself the least wooded county in south-east England.

Cherwell is predominantly rural in character and one third of the district's people live in its 73 rural parishes. The district's rural strategy recognises that the specific needs and challenges for rural communities must be assessed and addressed. This includes looking at the particular challenges and opportunities for rural communities in making the transition to a low carbon future.

Leading by example

The Councils Corporate Plan 2012/13 sets out an ambitious long term vision for the district. Working with our partners in the public, private and voluntary sectors we are aiming to build a district with a diverse economy. We are working to secure opportunities for all, and to help grow vibrant, thriving communities connected by a sense of pride, place and purpose.

Working towards a low carbon future will contribute to each of these priorities by supporting economic and skills development, contributing to greater efficiency within the council by reducing energy costs. By supporting energy efficiency and encouraging waste management and recycling in homes and businesses across the district and improving health by working to address the needs of those in or at risk from fuel poverty.

We are committed to working to reduce our impact on the natural environment, limit our use of natural resources and support others in the district to do the same.

We will:

- Work to reduce the council's CO₂ emissions by 22% by 2015
- Work with partners to improve the energy efficiency of homes and enable more residents to achieve affordable energy bills

Overlaying these Corporate and Strategic Themes is our ambition to be amongst the best performing councils in the country. In successive Satisfaction Surveys locally, 80% of our residents believe that the Cherwell District Council has a strong role to play in cutting carbon emissions. The Department for Energy and Climate Change (DECC) continues to require local government to report on an annual basis CO₂ emissions from across their estate and operations in order to improve local accountability. Therefore, Cherwell will continue to closely manage and report on its carbon footprint locally on a regular basis.

In addition, local government has two specific legislative drivers to comply with. Firstly, since 2008 there has been a legal requirement for all public sector buildings with a total useable floor area of over 1000m² to show a Display Energy Certificate (DEC) in a prominent place clearly visible to the public. This requirement affects the council's offices and other key buildings such as our leisure centres.

Secondly, the Carbon Reduction Commitment (CRC) is a mandatory emissions trading scheme for organisations whose total electricity consumption is greater than 6000 MWh in the initial reporting period of calendar year

To help deliver this vision the Council has four strategic priorities. These priorities shape the work we do, our services, plans and major projects.

- **A District of Opportunity**
- **A Cleaner and Greener Cherwell**
- **A Safe, Healthy and Thriving Community**
- **An Accessible, Value for Money Council**

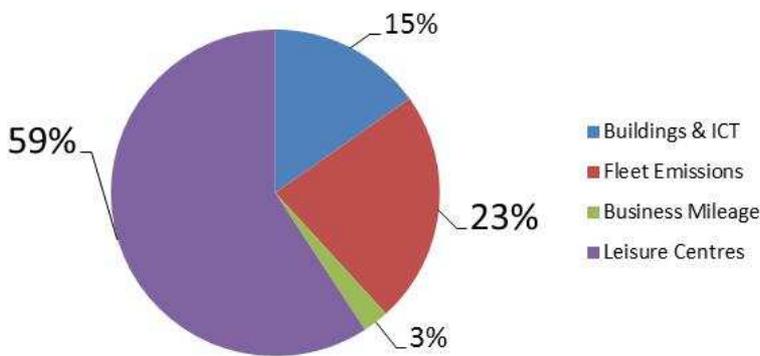
2008. At present Cherwell District Council's electricity consumption is below the threshold and is not required to take part in the trading scheme however it is required to report its electricity consumption.

The global recession has led to a range of public sector funding restrictions. All public sector organisations, including Cherwell District Council, have acted in response to take measures to find efficiencies whilst limiting any reduction in front line services. Reducing CO₂ emissions will directly cut down on energy and fuel costs allowing the Council to retain services. Further, limiting energy consumption will give the Council more resilience to energy price risks.

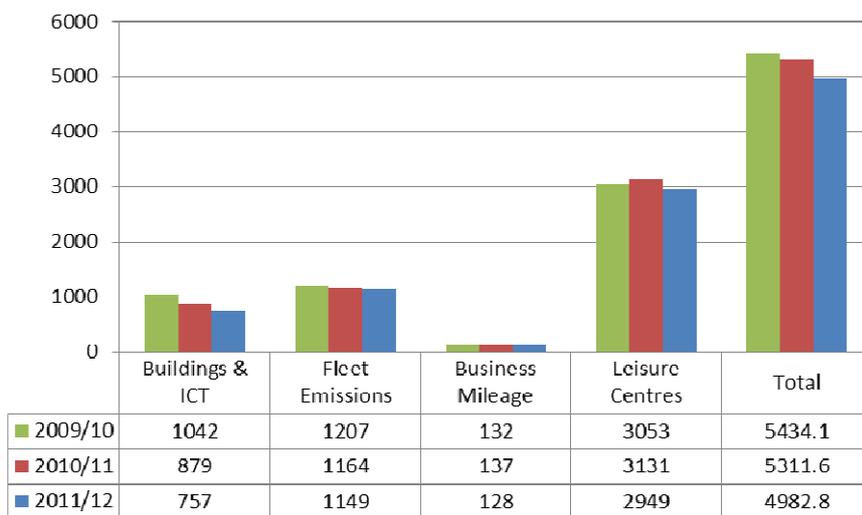
Carbon Management Plan

Our Carbon reduction target is to reduce CO₂ emissions from our own operations by 22% from a 2009/10 baseline year by the end of financial year 2014/15. This is a reduction of 1195 tonnes of CO₂ over 5 years.

Cherwell District Council emissions breakdown 2011/12



Cherwell District Council Emissions (tonnes of CO₂)



The Council has developed its Carbon Management Plan as the tool to reduce its carbon footprint. This is being achieved by procuring an Ofgem certified Green Energy Tariff for our two largest sites and actively working on

reducing our energy consumption by improving energy efficiency and deploying renewable and low carbon technologies when appropriate.

We have worked to reduce energy consumption in our office space. Measures have included: movement activated light sensors in toilets, stairwells and meeting rooms; optimisation of office space; improved IT connection for home working; reduced server capacity and cooling.

We have also worked with our leisure providers Parkwood to review energy use at our leisure centres. Leisure provision currently accounts for 59% of our CO₂ emissions so we have worked in partnership with Parkwood to reduce energy from lighting, heating and cooling.

Fleet is the next largest area of emissions, so drivers across our fleet have taken part in 'Intelligent Driver' training to ensure maximum fuel efficiency. From our fleet we seek a 2.5% saving on CO₂ year on year and other activities have included a review of recycling rounds to seek optimum efficiency from the use of vehicles and staff time that will lead to reduced costs and carbon savings (12tCO₂ reduction per annum).

Our staff are central to our objectives of reducing energy use and CO₂ emissions. We have set up a Green Champions network and used campaigning weeks such as Green Office Week to focus activities. Green issues appear frequently in our staff In Brief.

Business mileage is a small but significant percentage of our emissions. We have implemented a Workplace Travel Plan following a staff travel survey which looked at alternatives to car travel. As a result we have refreshed our pool bike scheme, launched a bicycle purchase scheme and promoted our bike mileage rate.

Using energy efficiently

Two large refurbishment projects have taken place over the past year. At Thorpe Lane Depot a whole site approach has seen greater efficiencies made by updating the building and facilities. Increased natural daylight has been achieved through roof lights, change to open plan offices and installation of sun pipes. Insulated roof panels, filling roof voids and cavity walls, and upgraded windows will ensure greater energy efficiency. Energy efficient lighting has been installed throughout the site. Bodicote Old House, a Grade II listed building, is being refurbished to increase energy efficiency. This will feature increased insulation and low energy lighting.

Deploying Renewable and Low Carbon technologies

Two major refurbishment projects of Council buildings, at Thorpe Lane Depot and Bodicote Old House, have deployed renewable energy. At Thorpe Lane Depot heating is provided by a 40kW woodchip boiler. A 14kW solar Photovoltaic (PV) array, along with a second array due to be installed this autumn, will provide an estimated 30% of electricity used on site. Gas consumption will be reduced by 16%; this is a combined carbon reduction of over 36 tCO₂ at the depot per annum. At Bodicote Old House space heating will be provided by two wood pellet boilers reducing gas consumption by up to 45% saving 40 tCO₂ per annum.

Cherwell District Council wants to show leadership in our area and has already worked on using a range of carbon reduction strategies. The Council also has an Energy Policy linked to the Carbon Management Plan, and a Workplace Travel Plan to change travel habits amongst staff. The CO₂ reduction target is embedded in our Corporate Plan and individual annual targets are also set for our Use of Natural Resources project on an annual basis. This also includes implementing our new Sustainable Procurement Policy which has a key objective of; Reducing fossil fuel use to minimise climate change.

The Use of Natural Resources Group was formed in 2009 and has involved key staff from across the Council such as Estates, Procurement, Leisure Services, IT, Fleet Maintenance, Transformation and Environmental Services. It uses multiple work streams to deliver projects to improve energy efficiency and save energy costs, outlined in the Council's Low Carbon Management Plan. The Use of Natural Resources project delivered an overall reduction of energy usage in 2010/11 of 2.3%, in 2011/12 of 6.2% and aims to reduce emissions by 4.5% in 2012/13.

Sustainable Community - Our district- Our future

This is a strategy for the Cherwell area to make the transition to a low carbon economy. Whilst Cherwell District Council and its strategic partners recognise they have a responsibility to lead by setting a behavioural and strategic example its role will be principally a co-ordinating one as many actions will be taken by or in partnership with others.

There is a lot going on across Cherwell already and we showcase just a few examples in this document. We applaud community led initiatives and will provide encouragement and support where needed to enable individuals, businesses and communities to make their own transition.

According to government statistics published in September 2011, taking into account emissions resulting from energy used in industry and commerce, in homes and in non-motorway road travel, Cherwell District is responsible for 7.8 tonnes of CO₂ emissions per head of population, considerably worse than the 5.9 tonne average for the South East of England. This is also the second highest of the Oxfordshire districts, with Vale of the White Horse at 8.9 t per capita being the highest. As you will see from the table below, Cherwell's high emissions can be attributed in part to its industrial and commercial success. The presence of the A34 (a feature also shared with the Vale) is no doubt a significant factor in the well above average road transport related emissions. On a more positive note the figures have shown a steady improvement and are down from 9.2 tonnes per capita in 2005.

Emission Source	Industry & Commercial	Domestic	Road Transport	Total
Cherwell District CO ₂ emissions in tonnes per capita in 2009	3.2	2.2	2.4	7.8
Vale of the White Horse CO ₂ emissions in tonnes per capita in 2009	2.9	2.3	3.3	8.5
South East average CO ₂ emissions in tonnes per capita in 2009	2.2	2.2	1.6	5.9

The Green Deal

The Green Deal will be introduced in late 2012 and will be available initially for residential buildings and at a later date for commercial buildings. The Council is taking a proactive approach, working collaboratively with other Local Authorities and the United Sustainable Energy Agency (USEA), to create a Community Interest Company that will provide a local delivery mechanism for the Green Deal.

The Energy Act 2011 created the new legislative and financial frameworks for the scheme to exist which is an innovative finance mechanism which eliminates the need to pay upfront for energy efficiency measures because the cost of the measures is financed via a payback on the electricity bill. The 'Golden Rule' principle states that the savings achieved by the measures must be greater than or equal to the cost of financing the measures within a maximum 25 year time period (or within the lifetime of the product if earlier).

The Energy Company Obligation (ECO) is a new requirement for larger energy

Minister of State, Greg Barker has described Green Deal as 'the biggest improvement programme since the war' and aims to improve 14 million homes by 2020.

suppliers and will require those suppliers to make around £1.3bn available per annum to sit alongside the Green Deal, allowing supplier subsidy and Green Deal Finance to come together into one offer to the consumer. ECO funding commences in January 2013 and will be a limited amount of money, to be used to support energy saving measures for fuel poor households as well as to subsidise expensive measures such as solid wall insulation. The proposed gearing of this subsidy is 25% towards fuel poverty support and 75% towards carbon saving. It is estimated that £1.3bn of ECO funding will be available annually.

Other Low carbon Funding Opportunities

Government backed grants are also available for installing renewable energy technologies. Those currently available (as at April 2012) include:

- Renewable Heat Premium Payments (RHPP):
These are the levels of support currently available:

Technology	Voucher Value
Solar Thermal Hot Water	£300
Air Source Heat Pump	£850
Ground Source or Water Source Heat Pump	£1,250
Biomass boiler	£950

The Renewable Heat Incentive (RHI) tariffs, replacing the RHPP, are likely to be introduced in summer 2013.

In November 2011, the RHI opened for commercial, public sector, industrial and community renewable heating installations (referred to as 'non-domestic'). The tariffs payable are linked to the Retail Price Index (RPI) and therefore will rise each year with inflation.

- Feed in Tariffs (FITs): were introduced on the 1st April 2010. Under the scheme, systems that generate electricity from renewable energy sources that are less than 5MW in capacity will:
 - Receive a fixed payment for each kWh of electricity they generate, regardless of whether it is used at the generation site, or exported to the grid (Generation Tariff). This rate will change each year for new entrants to the scheme, but once you join you will continue on the same tariff for 20 years, or 25 years in the case of solar electricity (PV).
 - Receive an additional payment per kWh of electricity which is exported to grid (Export Tariff).
 - Benefit from avoided electricity costs where the electricity they produce is used onsite.

FITs payments vary according to technology and size and are paid by energy suppliers, in order to be eligible, the system must be installed by an MCS approved installer.

Eco Bicester



Eco Bicester
be part of it

Background

Following the announcement in the Eco Towns Planning Policy Statement (July, 2009) that North West Bicester had been identified as a suitable location for an Eco-Town, the Council decided to embark on a project to deliver a whole town approach to the eco development named Eco Bicester. A core project team of officers has been set up to support the delivery of eco development in Bicester and a partnership approach to delivery is being used, with the private sector taking the lead in taking proposals forward.

Eco Bicester Strategic Delivery Board

Eco Bicester has a Strategic Delivery Board (SDB) formed by bringing together the key organisations and government agencies to deliver the town wide transition to a low carbon community using the eco development at North West Bicester as a catalyst.

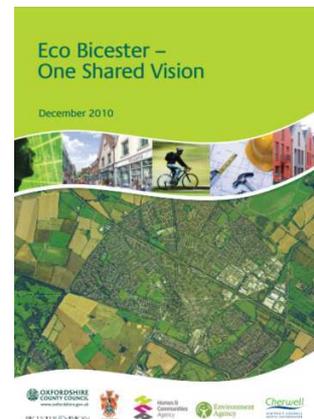
The Board meets quarterly, in public, and was established as an informal partnership and operates on the basis of consensus and influence. The SDB takes a holistic view of the opportunities for Bicester as a whole by also overseeing the progression and completion of key demonstration projects in the town.

Current membership of the Eco Bicester Strategic Delivery Board comprises Cherwell District Council, Oxfordshire County Council, Bicester Town Council, Bicester Vision Partnership, Bicester Chamber of Commerce, the Homes and Communities Agency, the Department for Communities and Local Government, the Environment Agency and Oxfordshire PCT. Other partners are asked to attend as required, including the North West site's promoters, A2 Dominion Ltd and P3 Eco Ltd.

“Eco Bicester One Shared Vision”

The Eco Bicester Strategic Delivery Board (SDB) has a vision statement, the “Eco Bicester One Shared Vision”, prepared in 2010 and agreed in December 2010. Its preparation involved extensive consultation with local businesses and the community. It promotes sustainable lifestyles and reflects the aims, ambitions and aspirations of the town. This Vision is about the whole of Bicester, not just the 5,000 home eco development at North West Bicester, and aims to create a vibrant Bicester where people choose to live, work and spend their leisure time in sustainable ways. This will be achieved by:

- Effecting a town wide transition to a low carbon community triggered by the new eco development at North West Bicester;



- Attracting inward investment to provide environmentally friendly jobs and commerce especially in green technologies, whilst recognising the very important role of existing employers in the town;
- Improving transport, health, education and leisure choices while emphasising zero carbon and energy efficiency; and
- Ensuring green infrastructure and historic landscapes, biodiversity, water, flood and waste issues are managed in an environmentally sustainable way.

Demonstration Projects

As part of the promotion of Eco Bicester a portfolio of demonstration projects were put together for the existing town:

- A demonstration building located at the town centre park, Garth Park and built using sustainable construction techniques. This provides a flexible space and is used by the Community Liaison Officer as an exhibition space and information hub.
- Bryan House, redevelopment of a site in Chapel Street. Provision of 23 affordable homes that will set a new benchmark for sustainable homes in Bicester.
- Cooper School Sixth form building completed, opened in August 2011. It's Bicester's first zero carbon school building and features some of the latest building technologies to cut carbon emissions reducing energy use and cost;
- Travel Behaviour Demonstration Project – looking to encourage walking, cycling, car sharing and use of public transport to improve health, save money, reduce carbon emissions improve air quality and reduce congestion.
- Eco Technology and Awareness Programmes with practitioner Eco Energy providing awareness courses for the public and schools.
- Construction of new community hall facilities ('John Paul II Centre'), one of the largest PassivHaus non-residential building in the UK; formally opened in November 2011.
- Bicester insulation grant scheme – a programme to encourage retrofitting of residential properties with cavity wall and loft insulation. More than 1,300 homes have benefited from the scheme so far;
- Reuse and Sustainable Living Centre – creation of a multifunctional reuse and repair centre in Bicester. The Centre will take in collected or directly donated items that would otherwise go to waste and sell them on as second hand or refurbished goods;
- The NW Bicester on site demonstration project – the first phase of 5000 new homes planned to meet the housing needs of the town. The proposal is to create sustainable and vibrant villages that provide a range of facilities including homes, jobs, schools and shops whilst also

Eco Bicester Demonstration building

The demonstration building was opened by Tony Baldry MP in May 2011. Since its opening it has had about 2500 visitors, which included 12 school visits, training courses including Carbon Conversations, Annual General Meetings for local groups, Grassroots Bicester's monthly meeting, as well as offering space for presentations, interviews, events and an art gallery for a school competition.

Bicester Insulation grant scheme

A scheme financed through the Eco-town funding and managed by the United Sustainable Energy Agency. The scheme was established in November 2011 to encourage retrofitting of residential properties with cavity wall and loft insulation. More than 1,300 homes have benefited from the scheme so far, which has attracted additional funding from CERT (approx. £310k) and has led to estimated Carbon Dioxide saving of over 850 tonnes per annum. ;

promoting a sense of community involvement in the management and running of the site in a sustainable manner. It will be among the largest developments built to the Code for Sustainable Homes level 5 and zero carbon standards in the UK.

Working in partnership and encouraging low carbon initiatives

Building on the activities being undertaken for the development of Eco Bicester the Council is keen to support 'low carbon' initiatives across Cherwell District, involving the community and working with local partners to raise awareness and encourage CO₂ savings. The Council has set up and is funding an insulation grant scheme to encourage retrofitting of residential properties with cavity wall and loft insulation. The grant, run by the United Sustainable Energy Agency, has attracted additional funding from CERT (approx. £140K) and since its launch in March 2010 has led to the insulation of over 650 properties throughout the district and estimated CO₂ savings of around 400 tonnes per annum.

The Council wants to continue supporting and encouraging organisations and businesses to embrace the economic and environmental benefits that a low carbon approach offers, helping them improve their environmental performance and cut costs by using resources more efficiently. This links in with other work being undertaken to support business development through the provision of facilities such as the Bicester innovation centre and proposed Eco Business centre.

The Council will therefore continue undertaking activities such as its energy efficiency loan scheme, offering the use of a Thermal Imaging camera and electricity energy monitors, which get loaned out to

Major Sparkle

Our anti-litter team, and their fictional cartoon character Major Sparkle, visit schools and groups such as the scouts and brownies to give fun and interactive presentations on the problems litter can cause.

Major Sparkle Presentations focus on the cost of clearing up litter, the importance of recycling, how long things take to biodegrade, and the damage litter does do the environment and wildlife. The team will encourage children to 'say no to litter' and help keep their environment clean and green.

The team visit classroom sized groups of primary school age children. The presentations can be tailored from 30 minutes to one hour during which audience participation is actively encouraged.

We have done 55 Major Sparkle Presentations in Cherwell over the last year (2011), Covering children aged 4yrs - 14yrs - from all sorts of groups, including Primary Schools, Brownies and the Boys Brigade.

Upton Estate

2012 Cherwell Business Awards (Castle Quay: Sustainable Business award)

What they do: Covering 2,000 acres of countryside and some within the Cotswolds area of Outstanding Natural Beauty, Upton has many of the traditional activities of a mixed estate. Among the many activities it offers farm visits to local schools and groups in an attempt to promote a better understanding and appreciation of agriculture, the countryside and rural affairs. The Estate has also recently dedicated a large acreage over to the propagation of wildlife. An area of land around arable fields is given over to strips of wildflowers, clovers, rough tussocky grass and bird food. Upton has provided a home for various environmental research and trials work to the likes of DEFRA, Earthwatch and Jordan's Cereals.

Parish Councils and community groups in the district for a two week loan period, as well as encouraging the take up of Green Travel Plans within Cherwell businesses and organisations and will continue supporting schools with programmes such as the Green Schools Programme and Major Sparkle.

There are many examples of best practice within the area and the Council is keen on encouraging organisations and businesses to develop and share ideas and best practice. In 2012 the Cherwell business awards were set up to shine the spotlight on the ingenuity, tenacity and entrepreneurship in the local

business community. The awards include a sustainability category open to any organisation, irrespective of size or industry sector, able to demonstrate that they are actively improving their bottom line through sustainable business practices.

The Green Schools Programme

The Oxfordshire Green Schools is a waste and energy education project funded by Oxford County Council and Oxfordshire Waste Partnership and run by Groundwork Thames Valley.

The project, launched in October 2011, offers all primary and secondary schools in Oxfordshire free visits, such as:

- Class workshops at KS1-3
- Whole school assemblies
- Eco Meetings and advice on progressing with the Eco school awards
- Being signposted to Green Business and other Eco Trips in your area

Our Green schools team can visit your school to teach pupils about waste reduction, reuse, recycling and energy use. They offer a range of national curriculum linked activities and workshops for different age groups. In 2009 HNLC was awarded a £400,000 grant by the Department of Energy and Climate Change

In 2008 the Cherwell Climate Change Partnership was established, all members have developed and signed up to environmental pledges around the Cherwell Sustainable Community Strategy “Our District Our Future” and give regular feedback on implementation. Pledges include actions relating to energy usage, recycling, transport, procurement and water conservation. Partners were encouraged to sign up to at least four pledges and many signed up to more. To broaden the remit of the Cherwell Climate Change Partnership it has been merged with the Environment Forum – giving Parish Councils and other community groups the chance to contribute.

The Cherwell Climate Change Partnership - overview

The Partnership is one of the delivery groups forming part of the Cherwell Local Strategic Partnership. The Partnership has many aims among which to deliver environmental benefits within Cherwell, promoting and facilitating climate change mitigation and adaptation measures, raising awareness of climate change and associated risks and opportunities across all sectors of Cherwell, developing and promoting action within each partner organisation to reduce its carbon emissions.

Regular attendees include: Cherwell District Council, NHS Oxfordshire, Banbury Town Council, Banbury Chamber of Commerce, Bicester Town Council, Bicester Chamber of Commerce, Bicester Youth Councillor, Kidlington Parish Council, Oxfordshire Rural Community Council, Thames Valley Police

Cherwell District has very vibrant **community groups** and the Council aims to support and empower local groups and organisations active within the community in developing and acquiring funding for “low carbon” projects as well as supporting their implementation. Community groups such as the Grassroots Bicester community group and Hook Norton Low Carbon Limited have proven particularly successful in this sense, developing strong relationships with partner organisations and the Council intends supporting other community groups to follow suit.



Grassroots Bicester

Link: <http://grassrootsbicester.wordpress.com/>

Who they are: Grassroots Bicester was formed in October 2010 and became a Community Action Group in January 2011. Their aim is to help build a better world by growing a greener Bicester.

What they do: Grassroots Bicester is a collective of volunteers working across Bicester devising sustainable projects and solutions which will make a real difference to their local environment. They work with communities to empower them to learn more about climate change and what they can do to reduce their impact on the environment. Grassroots has lead a number of Freecycle events throughout the town; raising awareness on issues such as reducing household waste. They have held two extremely successful Eco Bicester Days in 2011 & 2012, Bicester's Biggest Bike Fix, Shed loads of Stuff (a garden & DIY recycling day), as well as "Grow your own vegetable" initiatives.

Grassroots is also leading on the development of a new Reuse Centre and is hoping to revive an area of land south of the town centre to establish a community orchard.

They have recently had a great opportunity through the GLEE project (Grassroots Leads Energy Efficiency) to upscale their work and make a big difference in Highfield, which they hope will lead to further Local Energy Efficiency projects in other areas of Bicester.

Grassroots Leads Energy Efficiency (GLEE PROJECT)

Grassroots Bicester and Bioregional worked in partnership with Cherwell DC and Oxford Brookes to secure £58,000 from the Department of Energy and Climate Change (DECC) Local Energy Assessment Fund (LEAF) aimed at helping local community action groups to prepare for new opportunities in energy efficiency, sustainable energy and climate change.

The funding was used to identify cost-effective measures to help residents in Highfield reduce their energy usage and, in turn, save money. The project focussed specifically on the neighbourhood of Highfield, in Bicester, although workshops were open to all Bicester residents. Highfield was selected for its mix of house types and its focus around the Brookside primary school. The information collected is to be used to benefit the rest of Bicester through initiatives brought forward by the Eco Bicester project.

Activities undertaken

The grant allowed Grassroots Bicester and BioRegional to deliver a programme of workshops and events, where residents could find out more about energy-saving measures, culminating in a highly successful Eco Bicester Day.

Cherwell Environmental Services team ran a door stepping campaign of 520 Highfield households, delivering information about the project and conducting a survey to establish a baseline of awareness.

Oxford Brookes ran a carbon mapping project using their Decorum tool, a GIS-based toolkit for carbon emission reduction planning for existing neighbourhoods. The study estimates that on average, the homes surveyed could make energy savings of 61% at a cost of £10-15K per home through a mixture of energy efficiency measures and renewable energy installations. More detailed conclusions from the carbon mapping are still being developed.

For more information see: <http://www.ecobicester.org.uk/cms/content/grassroots-leads-energy-efficiency>

Hook Norton Low Carbon

Link:<http://www.hn-lc.org.uk/>

Who they are: Hook Norton Low Carbon Limited (HNLC) is an Industrial Provident Society, set up by Low Carbon Hook Norton members to help the community reduce its energy consumption, carbon emissions and save money, with a



range of community-based schemes and individual household projects based on interest-free loans.

What they do: The long term aim is to create a rolling fund. All loans will be paid back to HNLC to be re-invested in future projects. In conjunction with this it is planned to generate revenue from renewable energy and carbon reduction to ensure the sustainability of the fund.

Low Carbon Communities Challenge: Hook Norton Low Carbon

In 2009 HNLC was awarded a £400,000 grant by the Department of Energy and Climate Change as part of the Low Carbon Communities Challenge.

Projects underway include:

- Hook Norton Primary School. 80 Photovoltaic (PV) panels on all south-facing roofs with a generating capacity of 17.4kW peak, 3 solar thermal hot water systems for the school's hot water, heat recovery from the computer room (to come) and topping up of insulation to convert a poorly insulated glazed corridor into a usable space throughout the year.
- Waste-oil biodiesel available in the village to all members of HNLC. This can blend with normal diesel and reduces carbon emissions by 75 to 80% for the same price as fossil-fuel diesel.
- Low CO2 diesel pool cars via Hooky Car Club. Exploring electric cars to test their suitability for our locality.
- Investing in local renewable energy generation.
- Renewable 'green' electricity available at prices comparable to standard 'brown' electricity through an affiliation scheme that we have set up with Green Energy UK. 5% of any money spent is given back to HNLC to fund other projects.
- Hook Norton Low Carbon have formed a partnership with The Phone Co-op to offer you a great deal on home phone and broadband. As a Hook Norton Low Carbon member 6% of your spend on calls and broadband will go back to the group to help them continue their excellent work in fighting climate change.
- Energy monitoring will be undertaken at a number of electricity substations in Hook Norton as well as some properties.

Duns Tew Community Action Group Food project

Link:<http://www.cagoxfordshire.org.uk/cags-list/148-duns-tew-community-action-group>

Who they are: Duns Tew Community is a group of people trying to involve the village in carbon reduction activities.

What they do: Activities such as swap shops and bike days.

Kidlington Vs Climate Change

Link: <http://www.kvscc.org.uk/>

Who they are: Group of locals with a shared interest in encouraging others to live more sustainably and minimise the impacts of climate change.

What they do: Raise awareness of climate change, its causes and what can be done in Kidlington and the surrounding area. Bring people in the Kidlington area to the point of willingly deciding to take action on climate change - in their lives, their places of work and/or in the wider community. Activities include hosting an Eco Fair, held every June since 2009 with a wide range of attractions and organisations to capture people's imagination, including a chance to ride a superb Energy Bike, find out more about local recycling & food, talk to experts about solar power installations in home, or look at some eco-products on the market; and "Green Drinks", held every first Tuesday of the month from 8pm, an opportunity for anyone interested in environmental issues to network and chat, exchange ideas.

Sustainable Kirtlington

Link: <http://www.sustainablekirtlington.co.uk/>

Who they are: Community group working towards enhancing the environmental impact of Kirtlington through both energy saving and energy efficiency.

What they do: Sustainable Kirtlington initiated a programme of energy-auditing and thermal imaging of individual households. Sustainable Kirtlington's most ambitious project so far is the micro-hydro scheme on the river Cherwell at Flight's Mill. The aim of the project is to install an Archimedes Screw in the river beside the existing weir in order to generate power and produce a regular income for the whole community. This will save over 80 tonnes of carbon per annum.

Banbury Ideas for a Change

Link: <http://www.fraw.org.uk/ideas/>

Who they are: Ideas for a Change are a group of like-minded people in the Banbury area who are working to address the imminent changes to our "modern" lifestyle that will manifest themselves over the next few decades.

What they do: They organise two series of events in the Banbury area, "Films for a Change" which presents films and documentaries that highlight the pressing ecological restrictions on our future development, and "Ideas for a Change", more practical educational events, from guided walks to talks and presentations, that seek to create a greater awareness of the difficulties ahead and suggest some alternative actions that we can take to change our lifestyles.

Conclusion

The actions proposed in this strategy build on the work undertaken to date and the actions already completed or underway from Cherwell District Council's previous Environmental Strategy, the "Cherwell Environmental Strategy for a Changing Climate".

This update of the Environmental Strategy has a much stronger focus on low carbon, in line with the Government's current approach and reflecting the need to take action from an economic as well as from an environmental point of view. Individually and collectively we still need to demonstrate environmental and social responsibility and help diminish the effects of climate change by reducing

our dependence on fossil fuels, but saving energy and carbon also means saving money, a consideration that we must always keep in mind in the current economic climate. As highlighted in the previous strategy, it is inevitable that we will experience impacts in the next few decades due to the effects of climate change it is therefore essential that we increase and improve our resilience from both an environmental and an economic point of view to make the most of the opportunities that a low carbon approach offers. Partnership working still plays a very important role within this Strategy, as now more than ever we need to work together to pool knowledge, experience and resources to achieve the most effective results. The goals and targets in this document are designed with a 4year timescale (from 2012/13 to 2016/17) but this still remains very much a living document, with the actions being re-assessed in two years time (2014/15).

Annex 1 – Action Plan

Key Actions

The District's Carbon Footprint

- *We will work with local partners to raise awareness and encourage take up of low carbon and renewable energy technologies and CO₂ saving actions by residents.*
- *We will actively encourage uptake of home energy efficiency measures and seek to provide additional support to those most in need.*
- *We will work with industry to embrace the opportunities of a low carbon economy by developing green knowledge and skills and supporting innovation in green technologies*
- *We will encourage the take up of Green Travel Plans with Cherwell businesses and organisations.*
- *We will work with the community in conjunction with the Oxfordshire Waste Partnership to further increase recycling and promote and facilitate waste minimisation and reuse.*
- *We will work with local partners to gain better understanding of what a changing climate means for the Cherwell community and to improve*

The Council's Carbon Footprint

- *We will continue to identify and implement actions to reduce CO₂ emissions from the Council's vehicle fleet.*
- *We will apply and monitor effectiveness of our Green Travel Plan to reduce CO₂ from travel, both from journeys to and from work and on Council business.*
- *We will continue to identify and implement energy & water conservation measures within Council buildings*
- *We will reduce waste and increase recycling within our own operations*
- *We will work towards ISO14001 accreditation for all Council premises*
- *We will fully implement our sustainable procurement policy*
- *We will work with our contractors to reduce CO₂ from those services that are outsourced.*

Glossary

CERT

The Carbon Emissions Reduction Target is the government's main policy instrument for reducing carbon emissions from existing households. CERT is due to run from 2008-2012. Defra is responsible for setting the CERT target for suppliers and OFGEM is responsible for administering the programme.

CESP

The Community Energy Saving Programme requires gas and electricity suppliers to deliver energy saving measures to domestic consumers in specific low income areas of Great Britain. CESP has been designed to promote a 'whole house' approach and to treat as many properties as possible in defined areas. DECC is responsible for setting the overall CESP target and the policy framework and Ofgem is responsible for administering the programme. It is due to run until 2012.

Community Interest Company (CIC)

The CIC is a new type of company introduced by the UK Government in 2005 under the Companies (Audit, Investigations and Community Enterprise) Act 2004, designed for social enterprises that want to use their profits and assets for the public good. CICs are intended to be easy to set up, with all the flexibility and certainty of the company form, but with some special features to ensure they are working for the benefit of the community.

Energy Company Obligation (ECO)

Underpinning the delivery of the Green Deal is the ECO. ECO will place one or more obligations on energy companies requiring them to generate a specific amount of credit by facilitating the installation of energy efficiency measures in homes in Great Britain before a set deadline. ECO has been designed to fit within the Green Deal framework and provide support, in the domestic sector, where Green Deal finance alone is not enough.

Feed in Tariffs (FiTs)

The FiTs scheme was introduced on 1st April 2010, under powers in the Energy Act 2008. Through the use of FiTs, DECC hopes to encourage deployment of additional small-scale (less than 5MW) low-carbon electricity generation by organisations, businesses, communities and individuals. An investment in small-scale low-carbon electricity gives in return a guaranteed payment from an electricity supplier for the electricity generated and used as well as a guaranteed payment for unused surplus electricity exported back to the grid.

Golden Rule

Whether the installation work is financed under the Green Deal will be determined by whether the 'Golden Rule' is met for the installation of those measures in the property in question. The expected financial savings resulting from installing measures must be equal to or greater than the cost of repayment over the term of the Green Deal Plan. The repayment period may be the lifetime of the measure or a specified "pay-back" period.

Green Deal

Green Deal is a market led framework, driven by new UK Government legislation, which will allow individuals and businesses to make energy efficiency improvements to their buildings at no upfront cost. Central to the Green Deal is a finance mechanism that will allow access to the finance needed for the improvements with repayment, in instalments, attached to the electricity bill.

Renewable Heat Incentive (RHI)

Domestic

Currently there is no indication as to what the long term support for domestic renewable heat will look like. A consultation will be published in September 2012, which will set out a firmer timetable for delivering the longer-term support and it is anticipated that this will begin in Summer 2013. Anyone who receives an RHPP will be eligible to receive long term support once it is launched.

Non-domestic

In November 2011, the RHI opened for commercial, public sector, industrial and community renewable heating installations (referred to as 'non-domestic'). The scheme is administered by Ofgem who also undertake the inspection and certification of non-domestic systems. As with FITs the tariffs are linked to the Retail Price Index (RPI) and therefore will rise each year with inflation.

Renewable Heat Premium Payments (RHPP)

Focus on short-term support for installations of renewable heat technologies in the household sector, in particular houses not heated by mains gas. The RHPP voucher scheme was due to close at the end of March 2012, however a second phase of the scheme has been announced, worth £25m (£10m more than the first phase) to provide support for the installation of renewable heat technologies in the household sector. Under the new voucher scheme, homes not heated by mains gas will be able to apply for grants for air-to-water-source and ground and water source heat pumps, biomass boilers and solar thermal. All householders can apply for grants for solar thermal. There are minimum energy efficiency criteria, and householders must agree to complete customer questionnaires, as well as making provision for the installation of a meter to monitor their energy use and performance of their heating system.

It also includes a new £8m Communities Competition which will help to bring renewable heat to a wider pool of householders. Potential applicants for the voucher scheme will be able to pre-register with the Energy Saving Trust from Monday 2nd April, with applications open on 1st May. Further details on eligibility criteria and the competitions will be announced in due course.