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 Epping Forest
District Council

EPPING FOREST DISTRICT COUNCIL

CLIMATE

CHANGE

STRATEGY 2009

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Introduction

In November 2007 Epping Forest District Council (EFDC) signed the Nottingham Declaration on Climate Change. The declaration is a tool to secure commitment from UK Councils to tackle the causes and effects of climate change. The climate change strategy represents fulfilment of this commitment and addresses the causes and effects of climate change in our district.

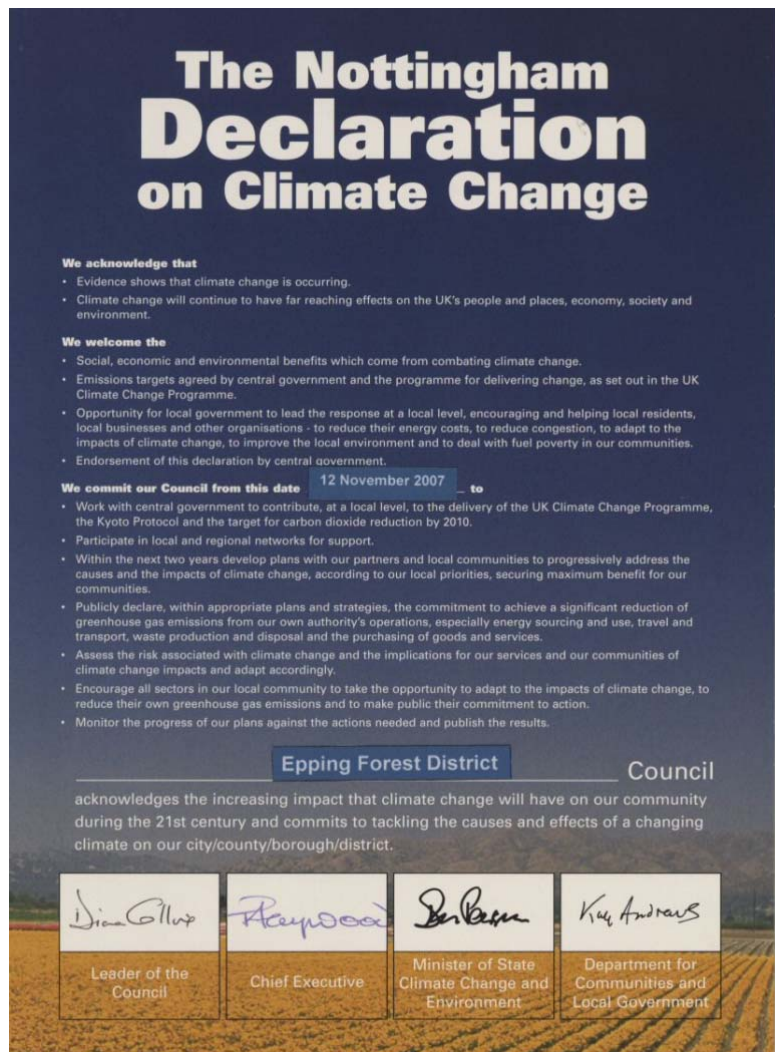
The main objective of this strategy is to reduce the green house gas emissions (principally CO₂) from the Council's own operations and from the district as a whole, and to prepare and adapt to predicted climate change impacts.

The Strategy is a combination of:

- Actions the Council is already taking, and will take in the future, to demonstrate best practice and leadership.
- Actions where we hope to encourage others to join us in taking them forward.
- Local awareness raising about the implications of climate change, and actions that can be taken to help us live more sustainably.

EFDC supports the view that there are enormous environmental, social and economic risks and some potential benefits associated with climate change. This strategy allows us to develop new projects and programmes for the District to mitigate and adapt to climate change, whilst enhancing and preserving local environmental quality. By working on improving the energy efficiency of our dwellings we are not only dealing with climate change but also tackling some social and economic problems such as fuel poverty.

This strategy is a Council document recognising what the Council is doing and intends to do to reduce the CO₂ emissions in the District . There are numerous actions the public can take to reduce their own carbon footprint, but these will not be discussed in this strategy as separate promotion material and campaigns will come out from this strategy.



What is Climate Change?

There is now a compelling scientific consensus that the climate is changing as a result of human activities. The burning of fossil fuels, industrial processes, agriculture, clearance of rainforest and other land uses all contribute to raising the concentration of man-made greenhouse gases in the atmosphere beyond the natural levels leading to excessive warming of the planet ⁽¹⁾.

The Fourth Assessment Report (AR4) of the Intergovernmental Panel on Climate Change (IPCC) leaves us in no doubt that human activity is the primary driver of the observed changes in climate. Defra ⁽²⁾

The world has already warmed by 0.74°C since the start of the industrial revolution and the effects of the warming are already apparent. There might be some initial positive effects, but without enough action to curb the greenhouse gas emissions substantially, climate change will lead to increasingly frequent and severe floods, droughts, storms, heat waves, as well as rising sea levels and the extinction of plant and animal species. The human cost will be high, with worsened famine, economic hardship, forced migration and armed conflict. ⁽¹⁾

Restrictions on the emissions of greenhouse gases must be negotiated internationally as well as nationally and locally. Everyone, individuals, households, businesses and organisations must deliver actions on climate change. Local authorities are therefore uniquely placed when it comes to dealing with climate change. This is something that Central Government recognises and it sees Local Authorities playing an important role in combating climate change, as stated in the Local Government White Paper 2006 ⁽³⁾. The new performance framework has five indicators relating to climate change, measuring emissions of greenhouse gases from the Council's own operations and from the community as a whole as well as indicators relating to climate change adaptation. It is an excellent tool for us as a local authority to be able to assess and measure if our actions are as successful as they need to be to achieve sufficient reductions in our carbon emissions ⁽²⁾.

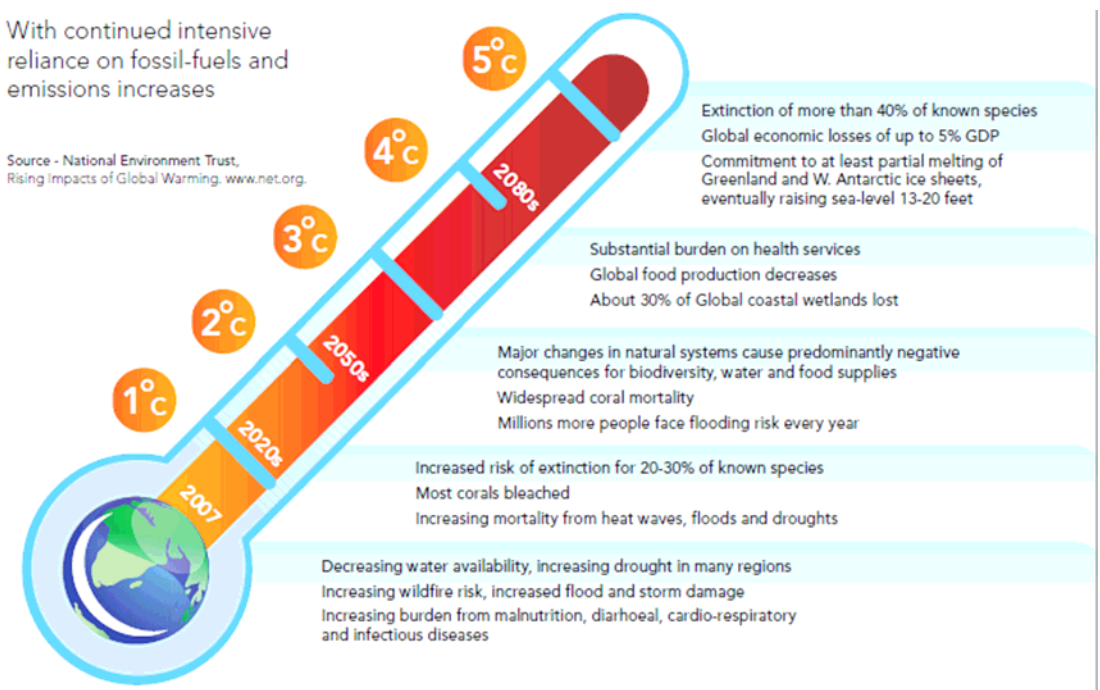


Figure 1. The projected increase in global average temperatures and the probable consequences

Objectives

- **Reduce our carbon footprint:**

Substantially reduce the amount of CO₂ and the other greenhouse gases we as a Council emit through all our services and operations.

- **Be a community leader:**

To reduce our impact and to lead by example, taking forward our knowledge, partnership and resources to encourage and help the wider community and stakeholders to become more sustainable.

- **Use our powers:**

Influence and use our powers in procurement, private housing, commercial sector and planning. Minimise the environmental impact of new development and ensure any future developments are able to with stand the challenge of the changing climate.

- **Prepare the Council and the District for the impacts of climate change:**

Make preparations to ensure the Council's assets and operations are resilient to the predicted climate change impacts and assist in the work to prepare the District for the new climate.

Policy Background

Globally

The Kyoto protocol is an international agreement linked to the United Nations Framework Convention on Climate Change. In 1997 UK signed this legally binding agreement, which has the objective of reducing greenhouse gases emissions to 12.5% below the 1990 levels by 2012. The UK is on track to achieve this target. There are currently talks of post-Kyoto, which will determine what will happen after 2012, this will be further considered at the United Nations Climate Change Conference in Copenhagen, in December of 2009. ⁽⁴⁾

EU Level

The European Commission's Action Plan on Energy Efficiency (2000) indicated the need for specific measures in the building sector, and in 2003 the European Parliament and Council agreed a Directive on The Energy Performance of Buildings, designed to promote energy efficiency and achieve a convergence of building standards across member states. Measures within the directive include;

- A methodology for calculating the energy performance of buildings.
- Performance standards on new and existing buildings.
- Certification schemes for all buildings.
- Inspection and assessment.

In the UK, this has resulted in the introduction of the Energy Performance Certificates (EPCs) that every property now needs to have if it is being sold or let out. It also led to the introduction of the Display Energy Certificates (DECs) that every public building over 1000m² has to produce and have on display. Both these certificates look like the energy efficiency rating of electrical products where A is the highest rating and means that the house/building is very energy efficient whereas G is the lowest rating and hence means the house has very poor energy efficiency.

The EU Emissions Trading Scheme (EU ETS) is another one of the key policies introduced by the European Union to help meet the EU's greenhouse gas emissions reduction target of 8% below 1990 levels under the Kyoto Protocol ⁽⁴⁾.

The scheme is divided into phases for which Member States must develop a National Allocation Plan (NAP) approved by the European Commission. These plans must set an overall 'cap' on the total amount of emissions allowed from all the installations covered by the scheme. This is converted to allowances - 1 allowance equals 1 tonne CO₂. The allowances are then distributed by Member States to installations in the scheme.

Installations covered by the Scheme are required to monitor and report their emissions. At the end of each year they are required to surrender allowances to account for their installation's actual emissions. They may use all or part of their allocation, and have the flexibility to buy additional allowances, or to sell any surplus allowances generated from reducing their emissions below their allocation.

National

The government published the Energy White Paper in May 1997. This set out the national framework for responding to the challenges of future energy supplies as well as climate change mitigation, energy efficiency and fuel poverty. The Energy White Paper was the precursor to the legally binding targets of CO₂ emissions in the 2008 Climate Change Act.

The Planning and Climate Change supplement to Planning Policy Statement 1 was published in December 2007, and describes how regional and local planning can contribute to reducing CO₂ emissions. This puts the onus on local development documents to provide a framework that promotes and encourages renewable and low carbon energy generation technologies at a local level.

The Warm Homes and Energy Conservation Act was passed in 2000 committing the Government to eradicating fuel poverty entirely across the UK by 2016-2018.

The Climate Change Act received Royal Assent in November 2008. The Act sets out legally binding targets for the UK to reduce carbon dioxide emissions by at least 80 per cent by 2050, and 26% by 2020. A Shadow Committee on Climate Change has already been formed to provide advice on policies and proposals to set and meet the carbon budgets. ⁽⁶⁾

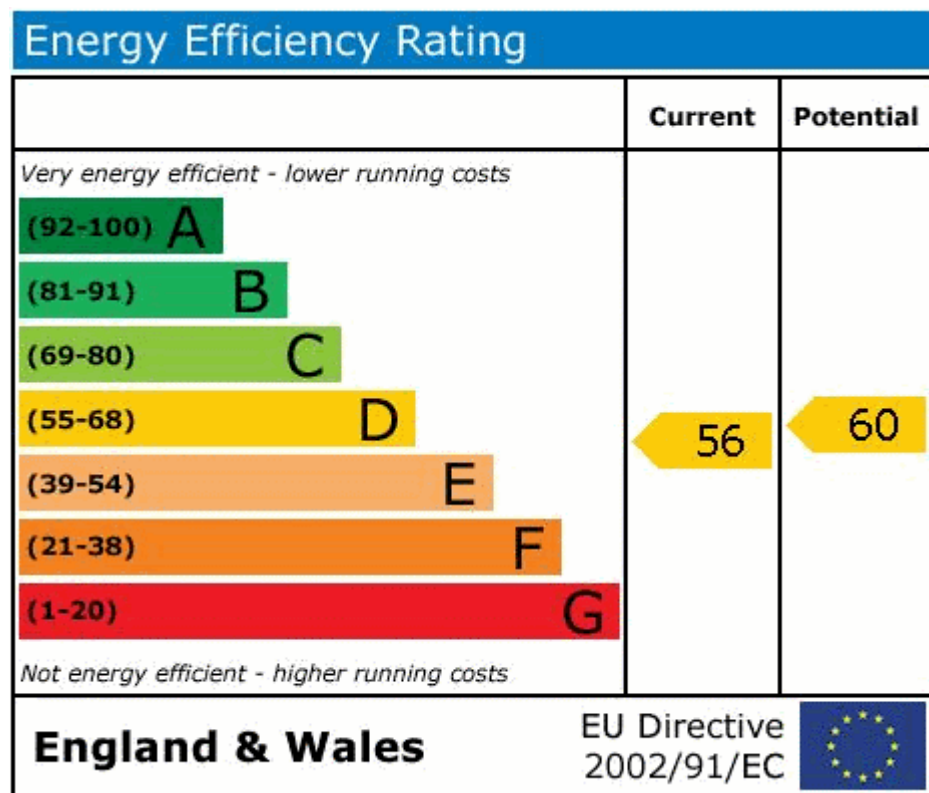


Figure 2. A typical Energy performance certificate.

Regional and Local

EFDC is working with Essex County Council on the Local Area Agreement (LAA). Priority 9 'Our World' in the Essex LAA (2008-2011) is focusing on the reduction of the domestic, business and public sector carbon footprint. EFDC has set a target of 8% reduction of CO₂ per capita in the district by 2011 compared to 2006. This target also coincides with one of the national performance Indicators (NI186) that means that we have to report on the progress annually to government. ⁽⁷⁾

In the Local Government Act 2000 under Section 2, councils have the power to do anything they consider likely to promote the economic, social and environmental well-being of their areas in order to respond to the needs of their local communities. The government has made it clear that local authorities have a lead role in providing community leadership on climate change. As a Council we aspire to continuing action on climate change that will be fully integrated into our society and that will ultimately achieve a sustainable district for residents, workers and visitors. ⁽⁸⁾

What is the Situation Today?

According to the Department for Environment Food and Rural Affairs (Defra) figures for 2006, Epping Forest District as a whole emitted 1,187,000t of CO₂. However, the figure that we are using in this strategy is 776,000t of CO₂, because Defra adjusts the total emission by subtracting emissions from motorways that are beyond our control, and industries located in the District that are already covered in the European trading scheme of Carbon. This is because one of the government's performance indicators that is connected to climate change (NI186) uses this total figure, and Defra then use that figure to calculate that the average person in our district emits 6.3t of CO₂ per year. This is slightly lower than the average CO₂ per capita in Essex which is 6.7t (all 2006 figures, which are the latest available). (7)

However, the amount of CO₂ emitted in our District is still too high, we therefore need to reduce the amount substantially. As a target EFDC has signed up to reduce this figure by 8% in total by 2011. This means that the average CO₂ per capita will be reduced to 5.8t of CO₂ per capita by then. This reduction is not enough but it's a start and after 2011 the reduction of emissions will need to increase with a new smart target based on experience of reducing emissions between 2006-2011. In setting EFDC's target, consideration was given to the work undertaken in connection with LAA2. (7)

Much of the emissions in our District come from the domestic sector (mainly residential use of electricity, gas and oil) - 45% of total emissions (see Figure 3). The remaining 55% comes from industry and commerce (33%) and transport (22%) This highlights the importance of using less energy in our homes.

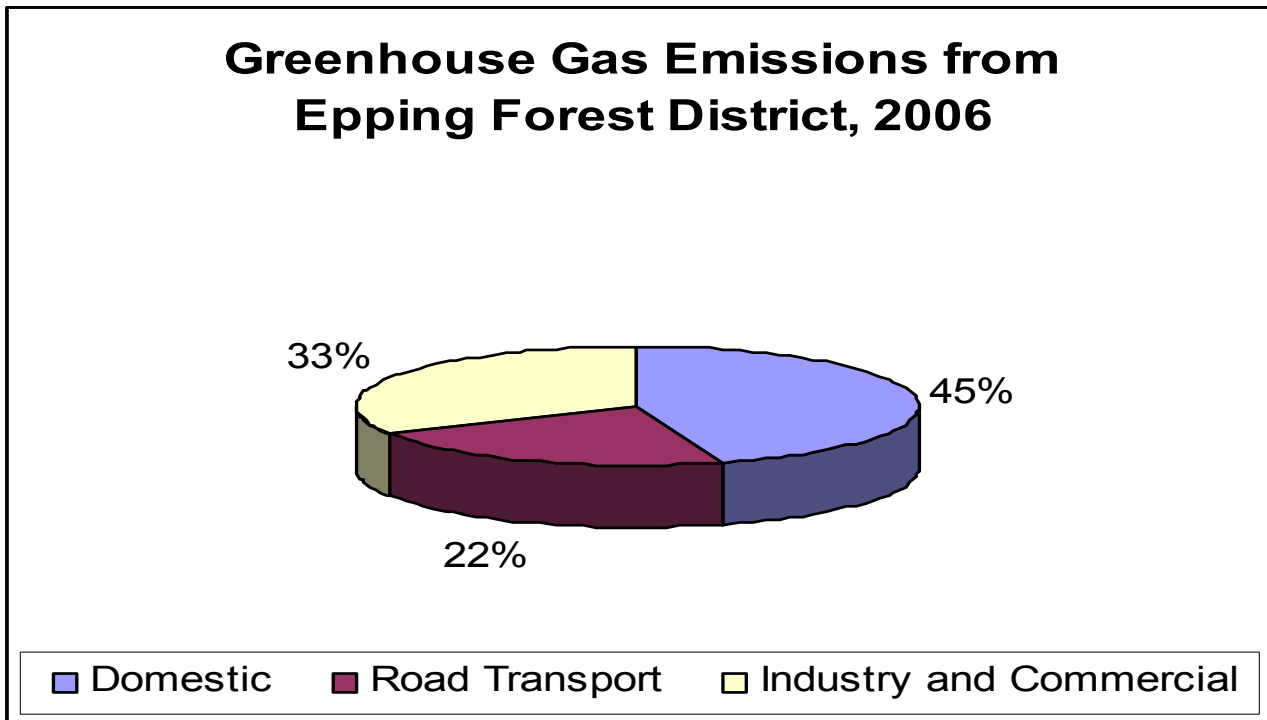


Figure 3. Percentage greenhouse gases emissions from the different sectors (Defra).

What is happening with housing in the District?

Epping Forest District Council's Home Energy Conservation Act (HECA) returns demonstrate that from 1995 to 2008 the energy used in homes has been reduced by 15%, with an annual average reduction of 1.7% (from 0.3-3.5%).

Improving the energy efficiency of properties is very important in the fight to counteract climate change but there are also other important benefits. By improving the energy efficiency of the properties you reduce the fuel bills, which helps to alleviate fuel poverty and making homes more comfortable and healthy to live in.

In 2007 the Council produced a Fuel Poverty Strategy setting out realistic and achievable measures for dealing with the factors that give rise to fuel poverty. It outlines a multi-agency approach by Essex County Council, Epping Forest District Council, the Primary Care Trust (PCT), Voluntary Action Epping Forest, Warm Front, the Essex Energy Efficiency Advice Centre (EEEAC) and energy supply companies to alleviate fuel poverty for all the residents of the District, regardless of tenure.

The aims of the Strategy are to:

- Raise awareness of fuel poverty among both professionals and the public
- To provide a good quality advice service to all residents;
- To ensure that all residents have access to available services;
- To target fuel poor households; and,
- Improve the levels of affordable warmth for all tenures.



Energy Efficiency in the Council's Housing Stock

The Housing Directorate has a stand-alone Strategy on Energy Efficiency that was produced in 2006. As this was prior to the incorporation of private sector housing into the Directorate, it only concerns the Council's own stock. The Strategy is due to be reviewed in 2010.

The Council has an ageing stock profile with the majority of the stock built between 1945 and 1980. Average Standard Assessment Procedure (SAP) ratings of the stock are therefore reduced as a result of the lack of more recently built properties with improved energy efficiency. The stock also includes properties built prior to 1945 with solid walls. If these are located in rural settings they may not be served by mains gas and are likely as a result to have low energy ratings.

In 2006 the average SAP rating of the Council's stock was 66. There are no national figures currently available with which to compare this, but in 2003 social sector housing nationally had an average SAP rating of 57, compared to 59 for the Council's own stock. The Council's target is to achieve an average SAP rating of 68 by 2010 however it will be increasingly difficult to improve existing average SAP ratings as the measures necessary are expensive and will require ongoing maintenance.

Over the five-year period 2006-2011, the Council has committed a total of £5,864,000 to ensure that all Council properties will meet the thermal comfort and the heating criteria contained within the Decent Homes Standard by 2010.



Energy Efficiency in the Private Sector

The mean SAP rating in private sector homes in the District is 58 (House Condition Survey 2005), which is comparable with national figures. The proportion of properties with a SAP rating below 30 and 20 is lower than the national figure. The lowest mean SAP rating is in the privately rented sector, detached houses and in pre-1919 properties. It is also in the privately rented sector that we find most of the households in fuel poverty, 14.8% compared with 3.2% for owner-occupiers.



In 2005 it was estimated that 4.1% (1,800) of private sector dwellings in the District were in fuel poverty compared with the national average of 11% for England. These figures are likely to have increased due to recent sharp increases in energy prices. In addition, 13.3% (6,100) of private sector dwellings failed the thermal comfort criteria of the Decent Homes Standard. While most of these properties were not adequately insulated approximately 1,400 needed new heating.

Vulnerable householders (older people on low incomes, families on low incomes and people receiving disability benefits) may be eligible for Small Works Assistance or a Thermal Comfort Grant from the Council to help them insulate their home and/or get new heating. The Council also works in partnership with Warm Front, Essex Energy Efficiency Advice Centre (EEEEAC) and utility companies to offer grants or discounts on insulation, new heating and other energy efficiency work.

What is happening within planning?

The Planning Directorate ensures that the new Building regulation's part L which concerns 'conservation of fuel and power' and the Planning Policy Supplement 1 regarding sustainable development and the Planning and Climate change supplement to policy 1 is being enforced in all developments.

Alterations to the Local plan were also adopted in July 2006 to improve the energy conservation performance and sustainability of new developments. These policies CP4-6 sets out that we as a Council can demand that new developments need to show that they have considered the energy conservation and sustainability issues appropriately before they get the planning permission approved.

The Planning Directorate is working on producing the new core strategy for the Local Development Framework, which will have its first consultation in the summer of 2009 with the aim of being fully adopted by 2012.

The Council's Countryside Management Service, Countrycare, works to conserve and promote the biodiversity of the District. It undertakes a wide variety of community-based activities and coordinates a regular programme of practical conservation work. Part of this work includes an annual tree-planting programme, which sees on average 2,500 trees planted per year. In the last 20 years the service has overseen the planting of over 50,000 trees. This work is vital as one of the many benefits of planting trees is that they absorb CO₂, and that helps mitigate climate change.

Countrycare also helps to manage three of the District's Local Nature Reserves that have a dual purpose - flood defense and biodiversity. This work and management on other land helps to adapt the District to Climate change as areas with a quality ecosystem and high biodiversity are more resilient to climatic change.

*Epping Forest
Countrycare*

Visit the website at www.eppingforestdc.gov.uk/countrycare

What is the happening with waste and recycling issues?

Waste generates greenhouse gases both in the production stage of the product and then again when the product is broken down in the form of methane emissions from the landfill sites. It is therefore very important to address both these issues. As a Council we are therefore encouraging everyone to try and consume less; that's the only way we can cut the emissions from the production stage. We also encourage everyone to recycle as much of their waste as possible to avoid putting more waste in our landfill sites.

The rate of recycling in the District has drastically improved since 2005 when wheelie bins were introduced. Before the wheelie bins residents in the District only recycled about 26-27% of their waste whereas last year (2007/08) the recycling rate was up to 41.7%, which is a very good result. To be able to increase this figure further, more materials, which can be recycled, are being added. For example the recent decisions of the Council to add the collection of food waste for recycling, and the implementation of recycling in multi occupancy dwellings.

Evaluation and Review

The climate change strategy needs to be reviewed annually, where progress on the tasks will be evaluated and the need for more action reviewed. The action plan will therefore be adjusted to include new targets and tasks annually to guarantee effectiveness and that relevant progress is made.



Appendix 1 - Action Plan

Priority 1: STRATEGIC

Task	How	Who	Resources*	When	Milestones
Create a climate change strategy describing how the Council will achieve greenhouse gas emission reductions and adapt to climate change impacts.	Through work done by the Green corporate working group.	L Ingwall Green CWP	Existing	March 2009	Strategy published (Improved performance of NI185, NI186, NI187, NI188 and NI194)
Update existing procurement policy for all Council purchases to include 'green' and local issues.	Through work done by the procurement strategy group	B Palmer D Jolly	Existing	March 2010	Updated procurement strategy that includes more 'green' and local issues implemented
Ensure whole organisation contributes to energy, water, paper and recycling saving targets.	Appoint 'green champions' from each section/Directorate	L Ingwall	Existing	May 2009	Reduction in energy, water and paper use. (Improved performance of NI185 and NI186)
	Add to agenda of team meetings. Request this from CEF	J Preston CEF	Existing	May 2009	
Provide training to key staff on how to complete a sustainability check as part of wider committee report template training.	Add to existing training	J.Preston S Hill	Existing	March 2009	All committee reports consider the sustainability of their proposals. (Improved performance of NI185 and NI186)
Establish steps required to achieve the BS 8555 standard and eventually EMAS accreditation	Produce report	L Ingwall	Existing	March 2010	Briefing report produced
Develop a Carbon management program	Start by recording and monitoring energy usage against benchmarking targets	L Ingwall M Hobbs M Bateman Carbon Trust consultant	Need funding	Dec 2009	Carbon Management Programme set up. (Improved performance of NI185 and NI186)

Priority 2a: REDUCE OUR OWN CARBON FOOTPRINT - BUILDINGS

Task	How	Who	Resources*	When	Milestones
Produce guidance and reset individual room cooling unit controls in the Civic offices	Work with Carbon Trust consultant	L Ingwall M Hobbs M Tipping	Existing	June 2009	No excessive usage of the cooling units (Improved performance of NI185 and NI186)
	Set up guidance brief throughout the Council next to monitors				
Develop environmental training for new employees	Work with HR to set the training up	L Ingwall P Maginnis	Existing	Nov 2009	Environmental training is mandatory for all new staff (Improved performance of NI185 and NI186)
	Make it mandatory corporate training				
Increase staff awareness of energy and other environmental issues, through training and incentives.	Run awareness raising campaigns within the Council.	L Ingwall	Existing	Ongoing	When employees remember to switch their PC and monitor off at the end of the day. (Improved performance of NI185 and NI186)
	Continue to educate through e-mail updates and other incentives and training.				
Continue and improve the efficiency of the office lighting	Civic Offices - automatic lighting control new installations and upgrade to existing systems	M Tipping M Hobbs / M Bateman L Ingwall	Phased programme over 3 years. Budget provision for 2008/09 approved. Bid for 2009/2010 going forward	Ongoing	Completion of each phase within financial year of budget (Improved performance of NI185 and NI186)
	Civic Offices Replacement of failing light fittings		Funding been deferred to be re-considered for 2010/11	Ongoing	Completion of each phase within financial year of budget
	Civic Offices Replacement of car park lighting bollards		Existed	Dec 2008	Completed

	Survey other EFDC's offices in regards to lighting and the possibility to achieve savings by changing type of lighting and controls.		Existing	Ongoing	When no lights are left on unnecessarily in the offices.
	Reduce office lighting by encouraging staff cooperation.		Existing	Ongoing	When no lights are left on unnecessarily in the offices.
Reduce the emissions of oxides of nitrogen (NOx) and particulate matter (PM ₁₀) from the Council's services and operations	Reduce the business and commuting mileage of staff working for the Council.	L Ingwall	Existing	March 2011	Achieved a significant reduction in our NOx and PM ₁₀ emissions. Leading to a improved performance of NI194
Civic Offices Heating and ventilation control for Civic Suite	Planned Maintenance Programme	M Hobbs/ M Bateman	Budget provision for 2008/09	March 2009	Completion of project within financial year (Improved performance of NI185 and NI186)
Civic Offices Replacement of mechanical valves and control in Council Chamber	Planned Maintenance Programme	M Hobbs/ M Bateman	Budget approved for 2009/10	March 2010	Improved performance of NI185 and NI186
Civic Offices replacement of Night Storage heating in Rear extension	Planned Maintenance Programme	M Hobbs/ M Bateman/ D Mankin	Capital programme 2009/10	March 2010	Improved performance of NI185 and NI186
Civic Offices replacement of heating system in Conder building	Planned Maintenance Programme	M. Hobbs/ M. Bateman/ D. Mankin	Capital programme 2009/10	March 2010	Improved performance of NI185 and NI186
Civic Offices - replacement of existing single glazed windows with double glazed units - Conder building	Planned Maintenance Programme	M Hobbs/ S Mitchell	Capital programme 2009/10	March 2010	Improved performance of NI185 and NI186
Civic Offices - upgrade control system to central boiler house	Planned Maintenance Programme	M Hobbs/ M Bateman	Capital programme 2009/10	March 2010	Improved performance of NI185 and NI186
Civic Offices provision of solar panels to offset energy spend (gas or/and electricity)	Planned Maintenance Programme	M Hobbs/ M Bateman	Bid for Capital programme 2010/11	March 2011	Deferred to be re-considered for 2010/11
Investigate potential energy savings for the leisure centres	Energy audit	L Ingwall	Existing	Jan 2010	Energy Audit report is complete

Priority 2b: REDUCE OUR OWN CARBON FOOTPRINT – TRANSPORT

Task	How	Who	Resources*	When	Milestones
Produce staff Travel plan to promote 'green' alternatives.	Conduct staff survey	C Overend P Maginnis L Ingwall	Existing	June 2009	Implemented new travel plan (Improved performance of NI185, NI186 and NI194)
	Promote the car sharing scheme				
Produce a green fleet review and implement the suggested actions	Work with the consultant from the Energy Saving Trust	L Ingwall	Existing	June 2009	Implementation of the suggested actions (Improved performance of NI185, NI186 and NI194)
Investigate the possibility to introduce a fuel supplement to the council's fleet	Produce report	L Ingwall	Existing	Sep 2009	All diesel vehicle in the Council's fleet use the fuel supplement (Improved performance of NI185, NI186 and NI194)
Offer economical 'green' driving training to staff	Set up a training programme	L Ingwall	Existing	March 2010	Staff know how to drive economically (Improved performance of NI185, NI186 and NI194)
Review the replacement of electricity powered pay and display machines with solar power	Produce report	P Blamey	Existing	June 2009	Review completed and percentage of solar powered pay and display machines in the District is publicised. (Improved performance of NI186)
To review the problem of commuter parking (to encourage the use of public transport)	Produce report	Q Durrani	Existing	Dec 2009	Completed report (Improved performance of NI186 and NI194)

Priority 3: COMMUNITY ENGAGEMENT

Task	How	Who	Resources*	When	Milestones
Produce an educational 'Energy Efficiency Guide' for the District.	Investigating working in partnership with Essex CORE	L Ingwall	Existing	June 2009	Energy Efficiency Guide published and distributed (Improved performance of NI186 and NI194)
Expand the community engagement programme to raise awareness and encourage residents to reduce their environmental impact.	Set up awareness raising campaigns	L Ingwall	Existing	Ongoing	When the CO2 per capita in the District has been reduced with 8% (Improved performance of NI186 and NI194)
	Continue to organise Green Festival and other events				
	Continue holding presentations in schools				
	Continue working with the Youth Council				
Assist local businesses to understand and reduce their environmental impact.	Produce environmental guidance to local businesses	L Ingwall, V Willis	Existing	Nov 2009	Information sent out to local businesses (Improved performance of NI186 and NI194)
	'Close the Door' Info and other corporate info with NNDR			Ongoing	
Publicise info for others of the climate change strategy and integrate appropriate actions into the strategy.	Publish strategy on website. Raise awareness through Council media and Council publications such as Forester	T Carne S Mitchell	Existing	June 2009	Good awareness of the strategy among the District

Priority 4a: HOUSING – SOCIAL HOUSING

Task	How	Who	Resources*	When	Milestones
Improve the energy performance of Norway House	Replace the 250 tungsten lights with low energy equivalent lights	A Kossick	Existing	Dec 2008	When only low energy light bulbs are used wherever possible (Improved performance of NI185 and NI186)
	Insulate the loft			March 2009	
Raise awareness of the importance & benefits of improving the energy efficiency of homes and how much energy can be saved through a change of behaviour.	Articles in as many publications as possible.	EEAC EST H Thorpe	Existing	Monthly	When tenants have adopted a more energy efficient behaviour (Improved performance of NI186 and NI187)
	Talks to already formed groups, i.e. Womens Institute, tenant liaison groups and other clubs.				
Continue to increase the amount of insulation measures in Council properties	Determining those properties without measures	Officers already involved with visiting properties, i.e. Housing Repairs Officers, Officers in Planned Maintenance	From budget and hopefully from continued grants from utility companies	Ongoing	Increase in number of installs from previous years (Improved performance of NI186 and NI187)
Investigate possibility of using renewal energy applications	Identifying possible properties/sites and arrange for appropriate provider to survey & give estimate	Housing Assets	Existing	When majority of properties have received insulation measures.	When installed solar panels have proved to be energy efficient by monitoring past and present utility bills. (Improved performance of NI186 and NI187)

Priority 4b: HOUSING – PRIVATE HOUSING

Task	How	Who	Resources*	When	Milestones
Investigate the possibility to introduce new measures to increase the uptake of zero and low carbon technologies in existing private housing.	Investigate providing grant incentives	L Ingwall	Need further funding	Nov 2010	When the CO2 per capita in the District has been reduced with 8% (Improved performance of NI186 and NI187)
	Set up a partnership with a supplier/installer to provide discounts and carry out promotion.		Existing		
Promote the importance of energy efficiency to private sector landlords	Produce guidance If possible, obtain list from letting agencies and mail merge	C.A.R.E. & Grants Team	Existing	Oct 2009	Take-up of interested persons (Improved performance of NI186)
Continue offering Thermal Comfort Grants	Through work carried out by C.A.R.E. and Grants Team	C.A.R.E. & Grants Team	Existing	Ongoing	When the CO2 per capita in the District has been reduced by 8 % (Improved performance of NI186)
Continue to offer advice and referral service to members of the public in the private sector	Through work carried out by C.A.R.E. and the Grants Team	Private Sector Housing Team	Existing	Ongoing	When the CO2 per capita in the District has been reduced by 8% (Improved performance of NI186)
Implement the London Commuter Belt (LCB) sub-Regional carbon reduction and fuel poverty project.	Through working group set up by LCB private sector Housing Group	Private Housing Manager (Policy, Grants & C.A.R.E.)	Funding agreed for 2009-2011	From April 2009 to March 2011.	When the CO2 per capita in the District has been reduced by 8% (Improved performance of NI186 and NI187)
Continue to implement the tasks in the fuel poverty action plan	Working interdepartmental and through partnership in the District	L Swan H Thorpe L Ingwall	Existing	Ongoing	Substantial reduction in the number of households living in fuel poverty (Improved performance of NI186 and NI187)

Priority 5: PLANNING

Task	How	Who	Resources*	When	Milestones
Ensure new developments are resilient to predicted climate change impacts such as heat waves, water shortage and flooding	Through the new core strategy LDF	J Preston J Kersaw	Existing	Sep, 2009	New developments that require planning permission have reasonable adaptation measures (Improved performance of NI188)
	Use building regulations and planning policies to ensure new developments are adapted to predicted climate change impacts.			Ongoing	
Provide training to planners where skills are a shortage and provide guidance to developers and the public to support the sustainability requirements.	Set up workshops	J Preston L Ingwall	Existing	Ongoing	Guidance published, and training given to all appropriate staff (Improved performance of NI186 and NI188)
	Develop guidance document				
In the LDF process, incorporate planning policies to ensure that new developments in the District contribute to a reduction in CO2 equivalent emissions, including a percentage of renewable energy measures, and consideration given to reduce water consumption.	Introduce appropriate new policies	J Preston J Kersaw L Ingwall	Existing	Sep, 2009	Through LDF, ensure that new development results in a 40% reduction in CO2 emissions and lower water consumption (Improved performance of NI186)
Introduce and apply a 'Merton' rule requiring at least 10% on-site renewable energy for new developments	Include in new core-strategy	J Preston L Ingwall	Existing	Sep, 2009	Merton rule implemented (Improved performance of NI186)
Introduce and apply the 'Uttlesford' policy. When an application comes in for home extensions the Council will require that cost effective energy efficiency improvements like loft	Include in new core-strategy	J Preston L Ingwall	Existing	Sep, 2009	Policy implemented (Improved performance of NI186)

and cavity wall insulation is carried out on existing dwelling to compensate for the extra energy that will be used in the extension.					
Continue and expand the plantation of more trees and hedges in the District.	Implementation of Country care's work plan and the Local Biodiversity Action plan	P Hewitt	Existing	Ongoing	When 4500 trees have been planted by the end of 2009

Priority 6: WASTE AND RECYCLING

Task	How	Who	Resources*	When	Milestones
Continue to improve our domestic recycling rates and investigate other means to reduce waste in the District	By introducing a more sustainable waste and recycling service	Q Durrani	Existing	Oct 2009	Achievement of the aspirational target of 65% of recycling by 2020.
	Campaign to encourage recycling and home composting by residents			Dec 2009	
	Improve services, promotion and educational work			Ongoing	
Reduce the amount of paper waste from offices	Invest in double sided printers so all staff have access to one	D Newton L Ingwall	Need funding	Dec 2009	10% reduction in the amount of paper that we use
	'Think before you print' campaign				
	Only buy toilet paper that is made from recycled paper				
Investigate recycling performances in all Council's offices and improve performance where necessary	Site audit report and recommendations	M Tipping L Ingwall	Existing	Dec 2009	Improvement in the recycling performance of all offices
Continue the awareness raising program in schools and community groups	Hold presentations in the District on waste and recycling issues	D Marsh J Falco	Existing	Ongoing	When the understanding of recycling has increased significantly
Investigate the possibility of a transfer station within the District	Produce a feasibility report	J Gilbert Q Durrani	Existing	Dec 2009	Completed report distributed to relevant partners

Priority 7: ADAPTATION TO CLIMATE CHANGE

Task	How	Who	Resources*	When	Milestones
Achieve level 0 and level 1 in Essex Adaptation Framework	Carry out audit of existing plans / relevant risk registers	L Ingwall	Existing	March 2009	To meet Government and LAA2 targets on NI188
	Produce brief for Directors and portfolio holder to raise the awareness of climate vulnerabilities and opportunities	L Ingwall			
	Ensure adaptation is embedded in the decision-making processes across all the Council's service areas.	J Preston L Ingwall			
To achieve level 2 in Essex Adaptation Framework	Members and Service heads have a detailed understanding of risk in all vulnerable areas	J Preston L Ingwall M Tipping	Existing	March 2010	To meet Government and LAA2 targets on NI188
	Undertaken a comprehensive risk-based assessment of vulnerabilities to weather and climate, now and future.				
	Identify priority risks for all the five Directorates				
	Identify the most effective adaptive responses for our District				
	Incorporate adaptive responses into strategies, plans, partnerships and operations				
	Implement appropriate adaptive responses in priority areas				

	Working with LSP to identify climate risks and opportunities that affect delivery of LSP objectives				
To achieve level 3 in Essex Adaptation Framework	Produce an action plan that demonstrates how the risks and opportunities from climate change will be managed	J Preston	Existing	March 2011	To meet Government and LAA2 targets on NI188
Ensure all new developments incorporate Sustainable Drainage Systems (SUDS) where necessary	Through the work done by the flood risk zone assessment and the flood alleviating scheme	J Preston, Q Durrani	Existing	Ongoing	When all developments that require SUDS incorporates them (Improved performance of NI188)
Undertake an impact assessment including both impacts covered by existing risk management systems (e.g. flood risk plans, community risk registers etc) and the identification of new or emerging risks arising from projected climate changes.	Through interdepartmental work on assessing the impact of climate change in our District	J Gilbert, JPreston	Existing	Dec 2009	Assessment complete (Improved performance of NI188)
Implementation of the actions identified in the adaptation action plan and a continues review of the plan and its measures	Work with LSP and other partners	J Preston	Need funding	Ongoing after March 2011	Implementation of the actions identified (Improved performance of NI188)
Review the policy of the flood risk zone assessment to incorporate the impacts of climate change	Produce the report	Q Durrani	Existing	Dec 2009	Report produced and distributed (Improved performance of NI188)
Review the performance of the flood alleviating scheme to reflect climate change	Produce the report	Q. Durrani	Existing	Dec 2009	Report produced and distributed (Improved performance of NI188)

* **Existing** resources means that the task has an approved council budget, or relies on existing established staff.

Appendix 2 - Glossary of Terms

Adaptation

Refers to the action that is taken to adapt/ prepare for the changes that are and will happen to our environment due to climate change. For example, we need to prepare ourselves that the number and severity of floods will increase.

Biodiversity

Or biological diversity includes the whole variety of life on Earth. It includes all species of plants and animals, and their genetic variation and all ecosystems that we can find on this earth. This means it encompasses all living things from microscopic organisms to the largest trees. Not just exotic, rare and endangered plants and animals are included, but also those that are found in our back gardens, parks and ponds.

Carbon Dioxide (CO₂)

Is a gas that is released to the atmosphere when fossil fuels such as oil, natural gas and coal are burnt. Carbon dioxide is the major green house gas that causes the earth's climate to change.
Carbon foot printing

Is a measure of the amount of carbon dioxide or CO₂ emitted through the combustion of fossil fuels; in the case of an organization, business or enterprise, as part of their everyday operations; in the case of an individual or household, as part of their daily lives; A carbon footprint is usually expressed as tons of carbon dioxide or tons of carbon emitted on a yearly basis

Carbon Neutral

Is a term which refers to the reduction and offsetting of the impacts an organisation has upon climate change. For an organisation to be truly carbon neutral 100% of its direct and indirect emissions must be accounted for. This needless to say is very difficult to achieve, thus it is best to refer to activities in this area in terms of reducing a carbon footprint. The best way to do this is to follow a hierarchy, similar to the waste hierarchy (reduce, reuse recycle), but instead of the three 'R's using the three 'M's:

- Measure - determine your carbon footprint and where you are going to draw your boundaries - will you include staff travel to work, the embodied carbon in the materials you buy, or restrict it to organisation energy use and business travel?
- Mitigate - reduce your carbon footprint through energy efficiency measures and changing business practices (eg teleconferencing rather than flights).
- Mandate - when appropriate actions have been taken to reduce carbon emissions, you can mandate a suitably accredited organisation to offset the remaining carbon emissions for you.

Carbon Offsetting

Refers to services that try to reduce the net carbon emissions of individuals or organisations using mandated proxies. These proxies buy and remove from the market carbon credits that are issued to organisations that have reduced their own emissions and / or increase their absorption of greenhouse gases. Offsetting can be done through regulated schemes such as the United Nations Clean Development Mechanism, or by

voluntary offsets purchased from a range of different organisations offering this service. Carbon offsetting should not be considered to be a short cut to reducing an organisation's carbon footprint, and its effectiveness to actually reduce CO₂ emissions very much depend on what type of project the money is invested in.

Carbon Reduction

Is the act of reducing fossil fuel energy consumption in order to reduce emissions of the green house gas carbon dioxide in the atmosphere in the pursuit to combat climate change and global warming. Essentially it is a way in which we can all act, or make changes to our current lifestyle/business activities that can reduce wasteful use of energy to ensure that we reduce the harmful carbon emissions entering the atmosphere. This would include more efficient use of existing energy supplies, for example through insulation or technological improvements and use of a low-carbon energy source e.g. a wind turbine or wood fuel boiler.

Climate Change

The warming of the atmosphere, due to increased levels of greenhouse gases, is causing the world's climate to change. The Intergovernmental Panel on Climate Change (IPCC) stated that most of the global warming over the last 50 years is 'attributable to human activities'.

Greenhouse Gases (GHG)

The 6 gases which accumulate in the upper atmosphere and trap infra-red energy thereby causing global warming and resulting climate change. The six greenhouse gases are carbon dioxide, methane, nitrous oxide, chlorofluorocarbons (CFCs), perfluorocarbons (PFCs) and sulphur hexafluoride

Intergovernmental Panel on Climate Change (IPCC)

The IPCC is a scientific intergovernmental body set up by the United Nations Environment Programme UNEP and by the World Meteorological Organization (WMO). The IPCC was established to provide the decision-makers and others interested in climate change with an objective source of information about climate change. The IPCC does not conduct any research nor does it monitor climate related data or parameters. Its role is to assess on a comprehensive, objective, open and transparent basis the latest scientific, technical and socio-economic literature produced worldwide relevant to the understanding of the risk of human-induced climate change, its observed and projected impacts and options for adaptation and mitigation.

Mitigation

Refers to the action that is taken to reduce greenhouse gas emissions and tackle climate change, thereby limiting the most severe impacts.

Nottingham Declaration

The Nottingham Declaration on Climate Change requires local authorities to work with the community to tackle climate change at local level. By signing the declaration, local authorities commit themselves to implementing a climate change strategy and action plan. This involves cutting carbon emissions and instigating measures that help others to do the same. The declaration is the most widely recognised policy statement on the subject. Epping Forest District Council is a signatory.

Standard Assessment Procedure (SAP)

Is an assessment method for calculating how energy efficient a house is. The assessment provides a SAP rating between 1 (very poor) and 120 (very energy efficient).

Sustainable Development

"Is development that meets the needs of the present without compromising the ability of future generations to meet their own needs". Brundtland Commission (1987).

The report highlighted three fundamental components to sustainable development: environmental protection, economic growth and social equity. The environment should be conserved and our resource base enhanced, by gradually changing the ways in which we develop and use technologies.

Appendix 3 - References

1. Intergovernmental Panel on Climate Change (2007) IPCC Fourth Assessment Report [IPCC Fourth Assessment Report: Working Group I Report "The Physical Science Basis"](#)
2. Department of Environment, Food and rural Affairs <http://www.defra.gov.uk/environment/climatechange/about/index.htm>
3. Department for Communities and Local Government (2006) Strong and prosperous communities – the local government white paper www.communities.gov.uk/index.asp?id=1137789
4. UNFCCC 2008. Kyoto Protocol 1997 http://unfccc.int/kyoto_protocol/items/2830.php
5. The European Union, Emission Trading System in perspective www.pewclimate.org/docUploads/EU-ETS-In-Perspective-Report.pdf
6. Local Government Information Unit <http://www.lgiu.gov.uk/briefing-detail.jsp?&id=2036&md=0§ion=briefing>
7. Department of Environment, Food and Rural Affairs www.defra.gov.uk/environment/statistics/globalatmos/download/regionalrpt/local-regionalco2-ni186indicator.xls
8. Office of Public Sector Information www.opsi.gov.uk/Acts/acts2000/en/ukpgaen_20000022_en_1

Appendix 4 - List of Related National Performance Indicators

NI185 – Percentage CO₂ reduction from Local Authority (LA) operations

NI186 - Per capita CO₂ emissions in the LA area

NI187 - Tackling fuel poverty - % of people receiving income based benefits living in homes with a low and high energy efficiency rating

NI188 - Planning to Adapt to Climate Change

NI194 - % reduction in NO_x and primary PM₁₀ emissions through local authority's estate and operations.

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