



Uttlesford District Council Carbon Management Programme



Strategy and Implementation Plan



Date: 13/3/2008

Version number: 1.7 – final version subject to approval

Owner: Jake Roos

Approval: Finance and Administration Committee

Foreword from the Carbon Trust

Cutting carbon emissions as part of the fight against climate change should be a key priority for local authorities - it's all about getting your own house in order and leading by example. The UK government has identified the local authority sector as key to delivering carbon reduction across the UK inline with its Kyoto commitments and the Local Authority Carbon Management programme is designed in response to this. It assists councils in saving money on energy and putting it to good use in other areas, whilst making a positive contribution to the environment by lowering their carbon emissions.

Uttlesford District Council was selected in 2007, amidst strong competition, to take part in this ambitious programme. Uttlesford District Council partnered with the Carbon Trust on this programme in order to realise vast carbon and cost savings. This Carbon Management Implementation Plan commits the council to a target of reducing CO₂ by 25% by 2011-12 and underpins potential financial savings to the council of around £0.78 million.

There are those that can and those that do. Local authorities can contribute significantly to reducing CO₂ emissions. The Carbon Trust is very proud to support Uttlesford District Council in their ongoing implementation of carbon management.



Richard Rugg
Head of Public Sector, Carbon Trust

Foreword from the Chief Executive

Our council is committed to addressing the causes and effects of climate change in our area. This implementation plan is an important element of our overarching climate change strategy and will form the backbone of the council's carbon management programme for the next four years.

It explains how through investment in energy efficiency and renewable energy, aligning our policies and fostering a culture of energy saving we will meet our target of reducing our direct emissions by 25% by 2011-12. The plan will also reduce our energy related costs, avoid the significant financial risk of rising energy prices and help consolidate our position as a leader on local authority climate change action.

We hope that by making a concerted effort to our reduce emissions, replicating the best practice of others and creating best practice of our own, we will set an example for others in our community to follow, which will lead to greater reductions in emissions from our district as a whole.

<foreword to be reviewed/endorsed>

John Mitchell
Acting Chief Executive, Uttlesford District Council

Contents

1	Management summary	5
2	Carbon management strategy	7
2.1	<i>Context and drivers</i>	7
2.2	<i>Background</i>	7
2.3	<i>Our Vision</i>	8
2.4	<i>Objectives and targets</i>	8
2.5	<i>Scope</i>	8
2.6	<i>Partnerships</i>	9
2.7	<i>Policies</i>	9
2.8	<i>Finance</i>	9
2.9	<i>Communication</i>	9
3	Emissions baseline and projections	10
3.1	<i>Baseline</i>	10
3.2	<i>Projections</i>	11
3.3	<i>Progress to date</i>	13
4	Carbon Management Implementation Plan	14
4.1	<i>Shortlisted actions and emission reduction opportunities</i>	14
4.1.1	Long-term, management and structural	14
4.1.2	Behavioural / no and low cost	14
4.1.3	Energy efficiency improvements	14
4.1.4	Renewable and Low Carbon technology	15
4.2	<i>Implementation plan summary</i>	15
5	Implementation Plan financing	17
5.1	<i>Financial risks and issues</i>	17
5.2	<i>Financing criteria</i>	17
5.3	<i>Internal and external sources of funds.</i>	17
5.4	<i>Summary of costs and benefits of the SIP.</i>	18
6	Programme ownership, governance, and management	19
6.1	<i>Main roles and responsibilities</i>	19
6.2	<i>Governance</i>	20
6.3	<i>Communications to key stakeholders</i>	20
7	Appendix A: Individual actions	21
8	Annex B - Stakeholder Communications Plan	27

1 Management summary

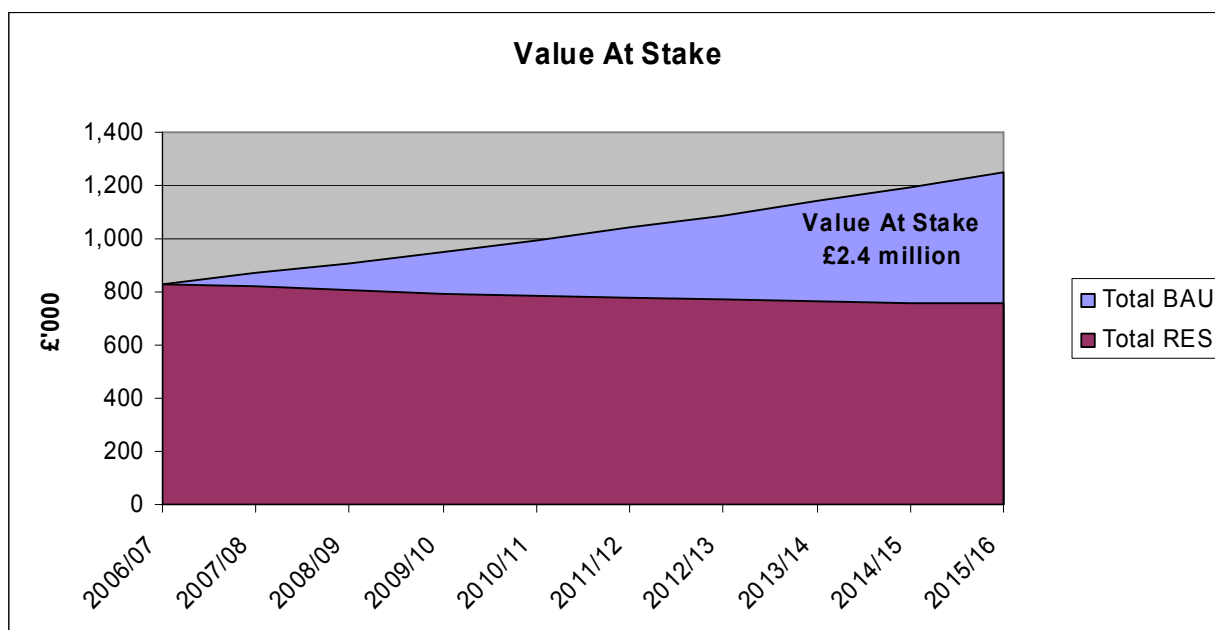
The purpose of this document is to describe in detail our plan of action achieving a target of a **25% reduction in CO₂e (equivalent) emissions by 2011-12.**

In our baseline year of 2006-07 we emitted 3,290 tonnes of CO₂e and spent £832,000 on energy and carbon related costs, namely heating fuel and electricity for buildings, diesel fuel for fleet vehicles, and staff business travel.

Under a **business as usual (BAU)** scenario these **costs will rise by 25% by 2011-12, and by 50% by 2015-16.**

By implementing this plan (the reduced emissions scenario, RES) we may avoid this additional expenditure and **reduce costs by 5% by 2011-12 and 9% by 2015-16.**

The total **'value at stake'** or cumulative avoided expenditure is **£780,000 to 2011-12 and £2.4 million to 2015-16.**



The cumulative avoided emissions from implementing this plan amount to **8,900 tonnes of CO₂e to 2015-16.**

This plan consists of a range of energy efficiency and renewable energy projects in our buildings and vehicles, ranging from simple low or no cost measures such as staff awareness and driver training, to significant capital investments in technology such as biomass heating. There are also enabling actions around staffing, governance, procurement, policy, monitoring and reporting.

Implementation of this plan has already commenced. Projects implemented so far will bring a projected saving of £30,000 per year in energy costs.

The budget for the 2008-09 financial year is in line with the programme of spending set out in this document. This plan has been discussed with Salix Finance to seek their agreement in principle to further external funding. Other planned expenditure will contribute to achieving the target, and in some cases will need to be directed towards the lowest emissions options (e.g. replacement fleet vehicles)

The mechanism of **ring fencing** savings for reinvestment in the programme is already in operation and **will ensure that the programme is self sustaining**. Ring fencing savings is a condition of Salix funding.

Planned expenditure 2007 – 2012 to implement carbon management plan

<i>Energy efficiency revenue budget</i>	<i>£ 17,000</i>
<i>Energy efficiency capital budget</i>	<i>£ 200,000</i>
<i>Costs covered from ring-fenced savings</i>	<i>£ 60,000</i>
<i>Costs covered by other budgets*</i>	<i>£ 162,000</i>
<i>Salix funding</i>	<i>£ 167,000</i>
<i>Total Estimated Expenditure</i>	<i>£ 606,000</i>

* 'Costs covered by other budgets' included here are for 'virtualising' the server room at the London Road Office, replacement boilers at Reynolds Court, and a biomass heating system for Holloway Crescent, should it be rebuilt. Costs for routine replacement of fleet vehicles, rebuilding the Thaxted Day Centre and electrical efficiency improvements at Holloway Crescent should it be rebuilt are not included, however these activities are part of this plan.

2 Carbon management strategy

2.1 Context and drivers

There are several factors that have driven the formation of this plan:

- Uttlesford District Council has been undertaking many new initiatives related to sustainability in recent years, which have tended to be outwardly focused. The Council is conscious that its internal activities and practices must stay in step with its outward messages or face accusations of hypocrisy from the public.
- The Council's energy prices have risen steeply (gas and electricity prices have increased by 70% from the previous contracts), while facing increasing pressure to find savings in the budget. Carbon management offers a way to reduce costs and become more efficient.
- Central government is putting increasing pressure on local authorities to reduce their carbon footprint, and the Council wishes to be well ahead when Councils are called to account for their emissions by incoming measures such as
 - The local authority performance framework indicator on direct CO₂ emissions from local authority operations (NI185), from 1 April 2008.
 - The local authority performance framework indicator on CO₂ emissions from the local authority area (NI186), which includes the public sector, also from 1 April 2008.
 - The legal requirement to produce and display 'Display Energy Certificates' for public buildings. These show a building's energy performance on an A-G scale and will be compulsory from 1 October 2008.
 - The Carbon Reduction Commitment, a form of carbon trading for large, non energy intensive businesses and organisations. Although UDC is presently too small to be subject to this requirement, the criteria may change in future.
- Most importantly the Council has made a commitment as a signatory to the Nottingham Declaration on Climate Change to address the causes and effects of climate change in our area.

"We commit... to publicly declare, within appropriate plans and strategies, the commitment to achieve a significant reduction of greenhouse gas emissions from our own authority's operations, especially energy sourcing and use, travel and transport, waste production and disposal and the purchasing of goods and services."

From The Nottingham Declaration on Climate Change, Signed by Uttlesford District Council on 27 January 2006.

As a result of this last point, the Council went through a member-led review of our operations to identify areas of improvement with respect to sustainability and climate change. The Council accepted the recommendations of this review, which formed the basis of an overarching climate change strategy and action plan. Our public declaration of commitment to achieve a significant reduction our emissions was contained in this strategy, which was published in October 2007.

2.2 Background

The carbon management programme at Uttlesford was developed through the work of the Energy Efficiency Surveyor and engagement between the Council and the Carbon Trust. A multiple site survey of our buildings by the Carbon Trust in 2005 identified considerable potential energy, carbon and cost savings, and at the end of 2006 the decision was taken to allocate capital resources towards achieving them and to seek external funding from Salix Finance.



In 2007 the Council entered the Carbon Trust Local Authority Carbon Management Programme in a consortium with Braintree District Council and Colchester Borough Council to get assistance in developing its programme in line with national best practice and to learn from the experience of other councils. Implementation of carbon-reduction projects began in 2007 once match-funding from Salix Finance was secured, and a carbon management team formed. Carbon management and the creation and delivery of this plan are key to the Council's Climate Change Strategy, adopted October 2007. Carbon management objectives have also been included in the current corporate plan and the draft Uttlesford Sustainable Communities Strategy, although formal environmental policies and procedures are still to be developed.

Responsibility for co-ordination of the carbon management programme currently rests with the Energy Efficiency Surveyor, who has driven activity in this area to date, although this needs to be formally recognised. The Head of Building Surveying has the senior-level responsibility to oversee carbon reduction work, and this is recognised in the job description for this post.

2.3 Our Vision

“Uttlesford – reducing emissions, reducing energy costs”

Our vision is that in five years the Council will:

- Have a 'best practice' carbon programme that has delivered deep cuts in the council's direct emissions of greenhouse gases.
- Have successfully mitigated against rising energy prices and avoided increasing energy-related costs.
- Have ring-fenced savings and reinvested them in energy efficiency and low-carbon technologies. Routine expenditure is directed towards the lowest emissions options and carbon management will be essentially self-financing by this point.
- Be widely recognised as having an excellent record of reducing its emissions.

2.4 Objectives and targets

The objectives of this programme are to:

- ***Reduce CO₂ emissions from Council operations by 25% in 2011-12 compared to a baseline of 2006-07.***
- ***Reduce energy consumption of Council operations by 20% in 2011-12 compared to a baseline of 2006-07.***
- ***Switch to lower cost, lower carbon energy sources wherever possible.***
- ***Encourage workforce involvement in the identification of opportunities and the implementation of action.***
- ***Lead by example and encourage our partners and the community to make changes to reduce carbon emissions.***

2.5 Scope

The programme will cover all sources of direct emissions, that is, the emissions arising from activities we pay for. These are:

- Council buildings (existing and new)
- Council vehicle fleet

- Business travel
- Existing contracts which represent a significant amount of 'outsourced' emissions
- Council waste

The emissions arising from activities we are involved with but we do not directly pay for will not be included in the carbon management programme at this time, but will be dealt with through the wider climate change strategy. These are:

- Staff commuting
- Council housing (where utility bills are paid directly by the tenant)
- Domestic and trade waste the Council collects

The carbon management programme may increase its scope to include the provision of new low-carbon energy services to our tenants, e.g. 'private wire' electricity supply. A decision on this will be taken as part of development of combined heat and power projects (or other low-carbon or renewable projects) at our sheltered housing sites.

2.6 Partnerships

A partnership will be maintained with Leisure Connection, who manage our leisure centres on a private finance initiative (PFI) contract, to encourage them to adopt their own carbon management programme. Our partnerships with Braintree District Council and Colchester Borough Council formed via our involvement with the Carbon Trust. The purpose of this partnership will be to share expertise and experience and engage in joint working where appropriate. Partnerships will be maintained as long as all involved find it mutually beneficial.

2.7 Policies

The Council will form an environmental policy and management system that complies with British Standard BS8555 and seek full EMAS (Eco-Management and Audit System) accreditation. Under this will sit specific operational policies on energy management, water management and sustainable procurement. These will entrench carbon management within the organisation.

2.8 Finance

The carbon management programme will be 'pump-primed' with funds from the council's capital programme for capital projects, funds from the Council's energy efficiency, ICT and building maintenance budgets, and external funding from Salix Finance. Funding for renewables may be obtained from the Government Low Carbon Buildings Programme. A ring fencing mechanism will be used so savings made can be used to replenish the overall fund and be used to finance further projects.

2.9 Communication

CMT will regularly report the progress of carbon management programme to staff (and send reminders of energy management policies) via email, newsletters and other means. Achievements will also be regularly communicated to the general public (e.g. press releases).

3 Emissions baseline and projections

3.1 Baseline

The Council’s direct emissions are those that the Council pays for:

- electricity, gas and oil used in our buildings,
- diesel used for our vehicle fleet,
- business travel including car miles, rail journeys and flights, and
- waste we generate that goes to landfill.

The total equivalent CO₂ emission of the Council in 2006-07 is estimated to be 3,290 tonnes

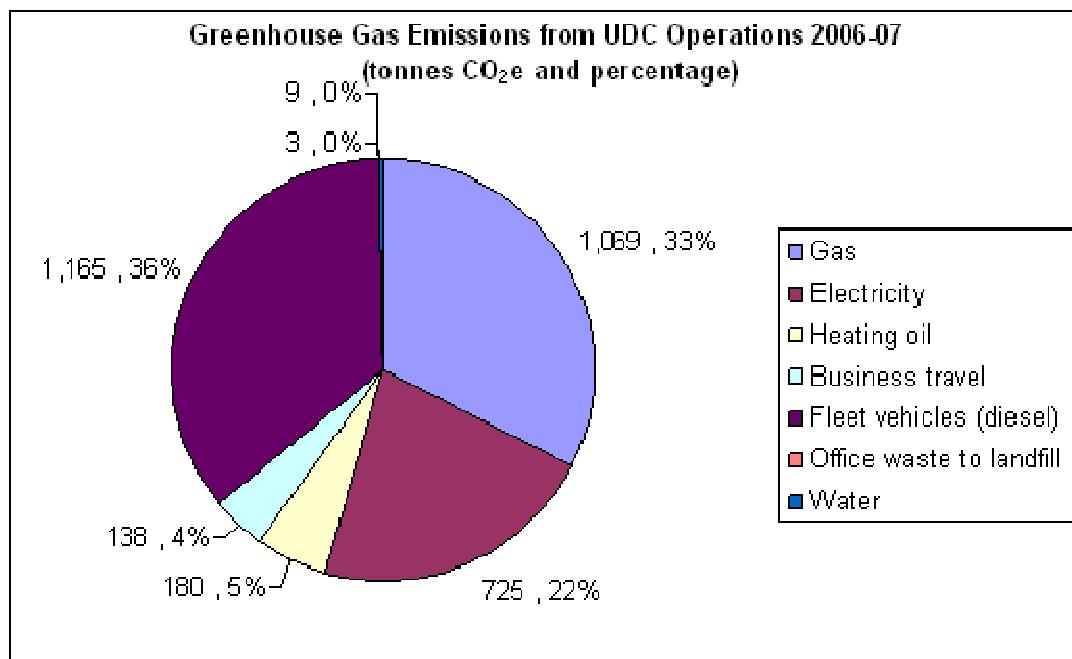


Figure 3-1

Figure 4-1 shows our baseline or ‘carbon footprint’ split by emissions source. By end use, the footprint is split 59% buildings, 40% transport and 1% ‘other’.

Where the Council purchases goods and services, or contracts others to deliver our services, the greenhouse gases associated with that item or activity ‘belongs’ to the Council as well. However, as this data is difficult to acquire, it has not been included in the baseline at this time, with the exception of water use.

There is some uncertainty in gas and electricity use figures as actual meter readings were not available for many small sites. Similarly emissions from car travel are based on the national average for car emissions per kilometre, and may not reflect the profile of vehicles our staff drive. However as the total part of ‘footprint’ these represent is small, their impact is minor. Overall uncertainty is ±1%

In the three years leading to the baseline year, emissions increased by around 2% per annum

Measured emissions increased greatly between 2005-06 and 2006-07 as refuse collection was brought in-house after being on contract, leading our direct diesel use to double. However, this ignores the fact

that before this contractors were presumably using a similar amount of diesel to provide a refuse collection service on our behalf.

Energy and emissions related costs will grow by 50% from the baseline year to 2015-16, an increase in annual costs of approximately £415,000

3.2 Projections

This assumes a business as usual (BAU) scenario consisting of a modest 'creep' in energy consumption based on Government figures of 0.7% pa for buildings and 1.8% pa for transport, along with a conservative estimate of energy prices rises of 3.5% pa, based on the last 5 years (Figure 4-2).

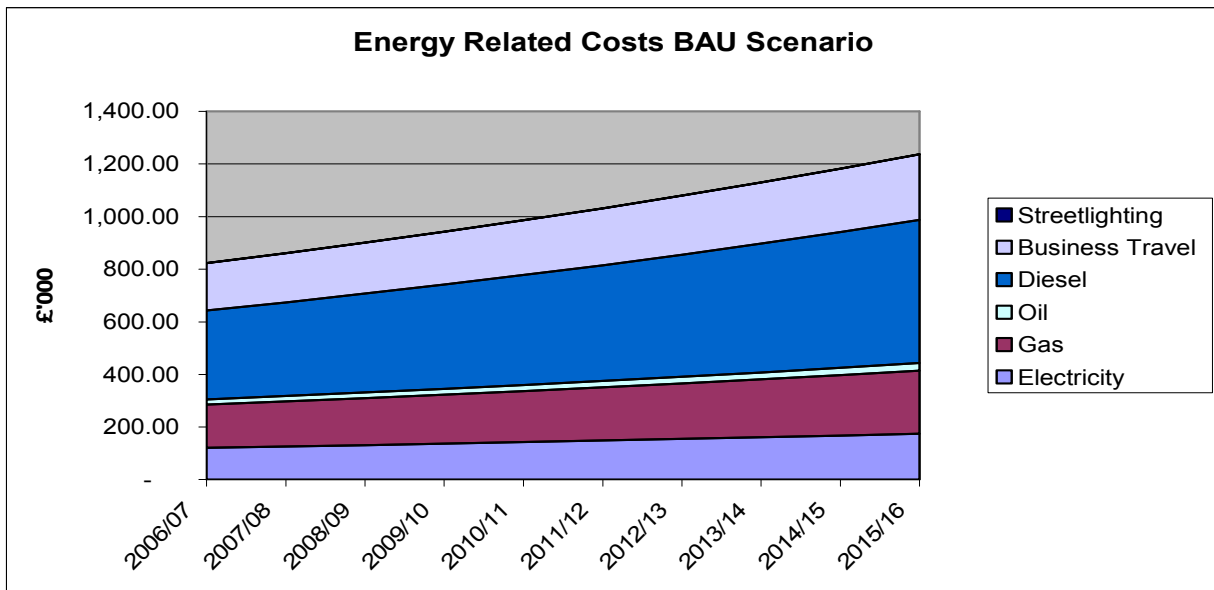


Figure 3-2

If the council undertakes the emissions reduction programme described later in this document costs can be reduced by £78,000.

This assumes the programme continues to increase savings at a similar rate beyond 2011-12 and is the reduced emissions scenario (RES) shown in Figure 4-3.

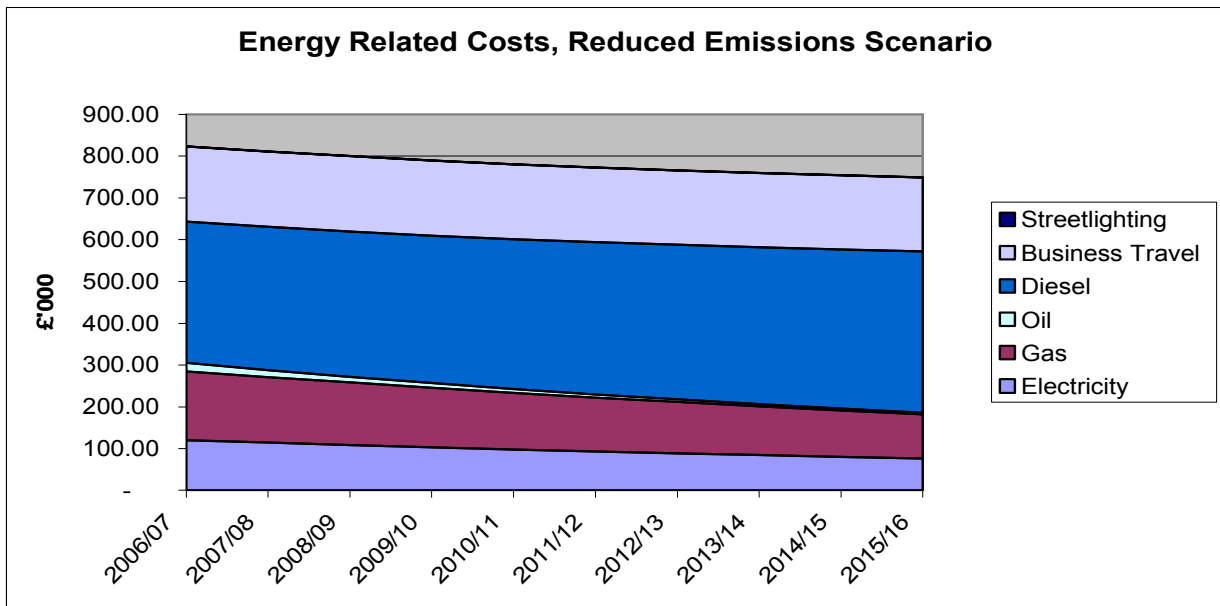


Figure 3-3

The 'value at stake' is the cumulative avoided expenditure by following RES instead of BAU, and it has a total value of £2.4 million over the period to 2015-16.

This is shown in Figure 4-4 below. The value at stake to 2011-12 (the period of this plan) is approximately £0.78 million.

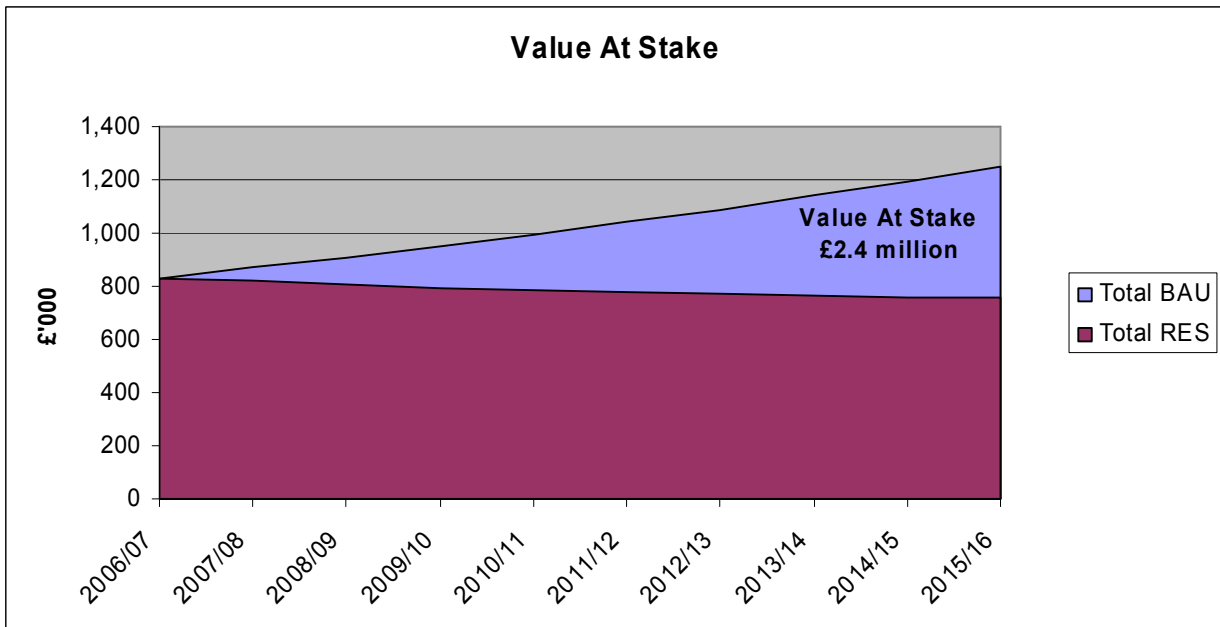


Figure 3-4

On the same basis, the carbon value at stake is 3,200 tonnes CO₂e to 2011-12 and 8,900 tonnes CO₂e to 2015-16, and is shown in Figure 4-5.

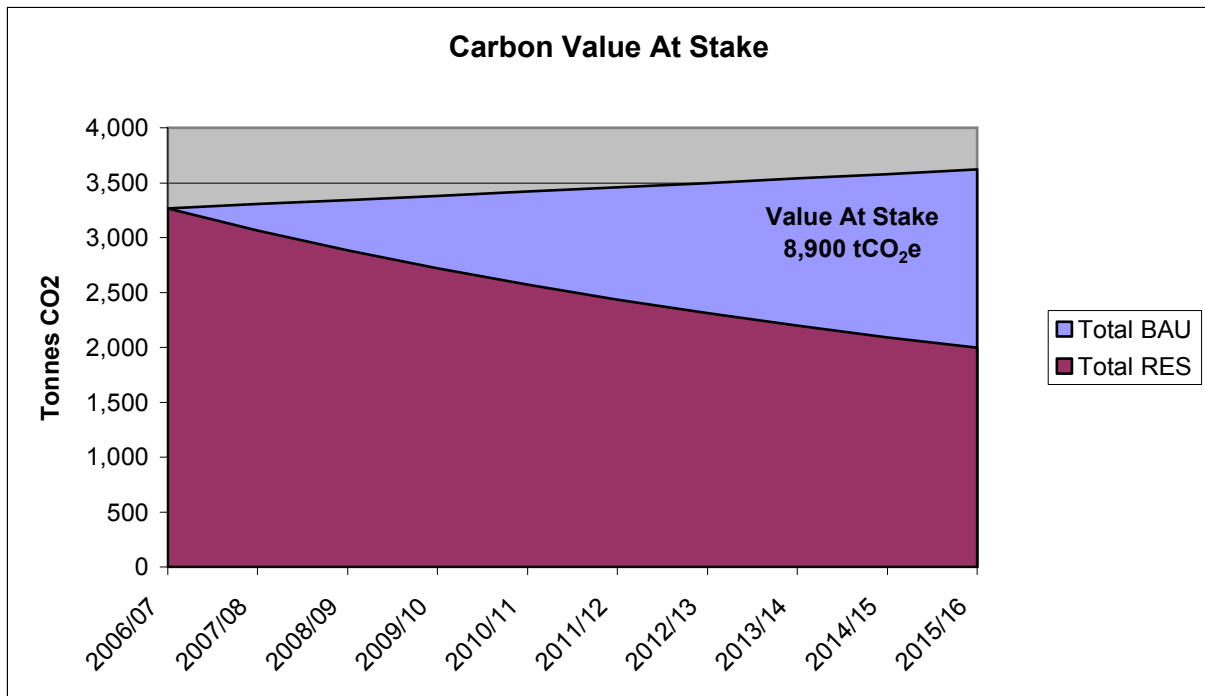


Figure 3-5

3.3 Progress to date

At the time of writing several carbon management projects have already been successfully implemented and more are in the process of being implemented. These are the projects described as occurring in 2007-08 later in the document and include voltage reduction equipment and PC-switch off software for the main council office, loft insulation for the Saffron Walden Museum, and a number of no-cost measures such as a weekly e-mail energy report and the turning down of thermostats.

4 Carbon Management Implementation Plan

4.1 Shortlisted actions and emission reduction opportunities

There are a number of different types of carbon reduction projects that the Council will take.

4.1.1 Long-term, management and structural

- *Policy* – various official policies will be made or modified, embedding carbon management into the organisation and ensuring day to day operations take any potential energy and carbon implications into account. New policies will include an overall environmental policy, and more specific energy and water conservation and sustainable procurement policies. Through these policies the responsibilities of staff and the roles and remits of the ‘carbon manager’ and CMT will be formally established.
- *Roles* – The role of ‘Carbon Manager’ with overall responsibility to co-ordinate the carbon management programme will be formally allocated to the Energy Efficiency Surveyor. Facilities management staff, fleet management, and human resources will be given the formal responsibility to work with the carbon manager to delivery carbon reduction projects.
- *AMR/Monitoring* – Improved data acquisition via automatic meter reading (AMR) at major energy using sites will provide up-to-date information on energy consumption and allow savings to be verified and problems to be addressed quickly. AMR is already present at two sites, and will be installed at other sites as part of larger carbon management projects. A regular report on overall carbon emissions (including diesel use and business miles) will be compiled by CMT to provide a current picture of progress at any given time, and will be fed into the corporate performance management process.

4.1.2 Behavioural / no and low cost

- *Awareness campaign* – promotions to staff will encourage them to adopt good energy saving habits if they have not done so already. This will be reinforced by a formal policy. Information on actual energy and emissions performance is already regularly communicated to staff by email in relation to our main building, and this will be expanded.
- *Thermostat settings* – All heating thermostats will be adjusted to ensure buildings are not overheated. This has already been done at many sites. Temperature bounds for winter and summer will be spelt out in policy and heating and cooling systems will only be used to maintain temperatures within these bounds. Hot water thermostats will also be adjusted if necessary to within correct the best range for a balance between energy conservation, health and safety.
- *Driver training* – Driver’s driving style has a strong influence on fuel consumption. Training sessions will be held for drivers to ensure these gains are made.
- *Ways of working* – the way work is organised can have a strong influence on energy use and emissions, for example by determining staff travel to and from the office or around the district. Ways of working in different departments will be examined to see if there is a scope to reduce emissions by making changes – for example by modifying regularly driven routes to reduce mileage. These changes will only be made if it will not significantly reduce the level of service the public receives.

4.1.3 Energy efficiency improvements

- *Insulation* – Building insulation including draught proofing reduces heating and cooling demand. Pipe insulation reduces heat losses if applied in areas where heating is not needed. A project to insulate the roof of the Museum has already been undertaken, and the boiler rooms of most buildings have had pipe insulation applied. A quote has been obtained to draught proof Walden Place, and this appears cost-effective. If further cost-effective insulation projects can be identified they will be added to the programme.
- *Heating and hot water systems* – Heating systems can be improved by replacing old boilers with modern, high efficiency condensing boilers and improving control systems. Boilers will be



replaced on several buildings and 'M2G' boiler sequencing control units will be added to the majority of heating systems provided, subject to a trial at Walden Place. Other controls improvements may also be identified and added to the programme. Eliminating hot water storage and the associated standing losses by use of point of use or instantaneous heaters will also be implemented at the main council office.

- **Lighting** – More efficient lamps, fittings and controls can reduce lighting electricity use. 'T12' and 'T8' fluorescent lighting, used in all council buildings, can be replaced with more efficient 'T5' lighting using special adapters in existing fittings– this is already being undertaken at the London Road Office, and will be rolled out to sheltered housing sites where this is economic. A lighting refit is planned for the Museum, which will require a much greater range of replacement bulbs and fittings. The Tourist Information Centre in Saffron Walden, public conveniences and car parks may also benefit from lighting improvements.
- **ICT** – Electronic equipment represents a major and growing use of electricity. Electricity use in the server room at the London Road Office represents 4% of the council's total carbon footprint. By 'virtualisation' of our server room, we can eliminate unused server capacity and thereby greatly reduce the number of machines needed, and also the cooling requirement. Desktop PCs and other electrical equipment are also significant. Projects have already been undertaken to address this at the London Road Office, including PC switch-off software, timer plugs and installation of voltage reduction equipment.
- **Vehicles** – Maintenance practices will be reviewed to ensure simple influences of efficiency such as correct tire pressure and engine tuning are being carried out. Beyond this, as fleet vehicles are replaced effort will be made to select new vehicles with lower emissions. Electric vehicles such as 'Modec' vans will be considered where their capabilities would fit with the needs of the service. Although these are more capital-intensive to purchase, their running costs are lower than comparable vehicles.

4.1.4 Renewable and Low Carbon technology

- **Biomass heating** – Replacing fossil fuel heating with 'carbon neutral' biomass fuel such as wood chip or wood pellet can immediately cancel substantial chunks of the Council's carbon footprint. It is most suitable at sites where there is space to accommodate fuel storage and delivery. Wood chip is a cheaper fuel than gas though it is even more advantageous if oil is presently being used. Two biomass heating systems, likely to be wood chip, are planned at Holloway Crescent (if ownership is retained) and other sheltered housing site.
- **Combined heat and power (CHP)** – By combusting fuel in an engine, useful work (to generate electricity) can be extracted as well as heat for space heating and hot water. This differs from boilers where the potential to do mechanical work is wasted, or centralised power stations where there is no use for 'waste' heat and it is dumped into the environment. Small scale gas-fired CHP units will be installed in several sheltered sites, to provide for the year-round demand for hot water heating as well as low-carbon electricity.
- **Photovoltaics** – Photovoltaic 'solar' panels can provide zero-carbon electricity, which few other technologies appropriate for our buildings can do. One demonstration project of a 5.83 kWp array is being installed at Vicarage Mead Shelter Housing Accommodation in Thaxted with the assistance of a government grant. This gives visibility to the carbon management programme and provides an example to others, such as housing developers, who are being required to incorporate such technologies by the Council. Further photovoltaic projects will be pursued if government support makes this economically attractive.

4.2 Implementation plan summary

A summary of projects, their costs and savings are given on the next page. These are generally estimates, except where projects have already been undertaken. See Appendix A for more details on assumptions. For each major project a detailed business case will be developed. The exact programme of projects may be revised as more development work is carried out and other opportunities come to light. No projects are 2011-12 at this stage. Some projects from earlier years may be delayed until then. However if the projects described here are successfully completed on

schedule it is likely additional projects will be added to the programme for 2011-12, and our targets will be exceeded.

Figure 4-1 Implementation Plan Summary

#	Lead officer	CO ₂ saving t/year	Cost saving £/year	Project cost
2007/08				
1	J Roos	18.9	£ 3,500	£ 12,725
2	J Roos	23.3	£ 4,000	£ 630
3	J Roos	4.2	£ 689	£ 2,120
4	R Goodey	2.7	£ 420	£ 2,500
5	J Roos	2.0	£ 696	£ 21,000
6	R Goodey	5.7	£ 981	£ -
7	R Goodey	76.0	£ 11,700	£ -
8	J Roos	34.0	£ 5,386	£ -
9	J Roos	22.3	£ 3,500	£ 3,700
2008/09				
10	J Roos	9.0	£ 1,400	£ 2,660
11	J Roos	11.0	£ 1,600	£ 8,000
12	J Roos	7.2	£ 1,200	£ 4,000
13	R Goodey	33.8	£ 5,326	£ 13,700
14	J Roos	52.0	£ 8,800	£ 17,000
15	J Roos	58.0	£ 16,882	£ 3,000
16	A Webb	87.0	£ 17,000	£ 100,000
17	J Roos	104.0	£ 16,471	£ 44,400
18	J Roos	15.4	£ 16,800	£ 500
19	R Goodey	8.3	£ 2,100	£ -
20	J Roos	0.0	£ -	£ 5,000
2009/10				
21	R Goodey	14.7	£ 2,350	£ 40,000
22	R Goodey	23.6	£ 3,735	£ 35,550
23	J Roos	60.2	£ 18,800	£ 70,000
2010/11				
24	R Pridham	58.0	£ 16,882	£ 30,000
25	J Roos	75.0	£ 5,701	£ 100,000
26	J Roos	187.5	£ 12,000	£ 90,000
27	R Goodey	27.0	£ 4,600	£ -
Totals		1020.8	£ 182,519	£ 606,485

*PV array cost excludes a £12,000 Low Carbon Buildings grant that has been obtained. Cost savings from the array excludes revenue from the sale of Renewables Obligation Certificates (ROCs).

+Cost is additional expenditure required to purchase two electric vehicles. All other costs will be covered by normal vehicle replacement budgets.

#To be Salix admissible, will not be run as a separate project but incorporated into other projects happening on these sites.

Notes

- The full effect of savings from a project will not be felt until the year following implementation.
- Annual cost savings shown here exclude the effect of escalating fuel prices.
- Where nil cost is given in all budget columns, either the measure has no cost or will be covered by normal planned expenditure.
- All 2007-08 projects have already been implemented or are in the process of implementation.

5 Implementation Plan financing

5.1 Financial risks and issues

Clearly the greatest financial risk arises from inaction – the value of stake over the period of this plan is £0.85 million or £286,000 per year in 2011-12.

Where the Council acts to implement this programme, there is a risk that the savings are not at the level that is hoped. In the first instance this may be mitigated by detailed calculations and conservative assumptions when estimates of project savings are made. Furthermore when a project is assessed, its merit if savings are less than hoped should be considered – this may eliminate projects with ‘borderline’ viability and higher risk.

The financial risk of lower than estimated savings may be further mitigated by assuming no savings occur in the financial year a project is implemented, and using this time to determine what the level of resulting savings actually are. Any savings that are made can then be carried forward to the next financial year. When a major project occurs near the end of a financial year, a period of assumed zero savings in the next financial year may be prudent.

5.2 Financing criteria

Salix Finance provides public sector organisations with ‘pump-priming’ match funding for carbon management. The funding is given in the form of an interest-free loan (or ‘repayable grant’) which may be kept as long as the money is held in a ring-fenced fund where money spent out is gradually replenished from energy cost savings. In this way, once a programme has been pump-primed it can be self-financing.

Where 50% external Salix matched funding is utilised, projects must have a simple payback of five years and a cost of less than £100 per tonne of lifetime CO₂ (the total CO₂ saved over a measure’s estimated lifespan).

This can be extended to 7.5 years if the project has a cost of less than £50 per tonne of lifetime CO₂. The period can also be effectively extended to 6.25 years by taking up to 20% of project costs from outside the ring-fenced fund. Salix funding cannot be used for transport projects.

Where the Council chooses to or must finance projects wholly from our own capital resources, the criteria can be of our own choosing. Projects with shorter paybacks (less than five years) will be favoured, but longer paybacks may be allowed in certain circumstances. A project must pay for itself with its lifespan however. Where the energy efficiency budget is utilised, savings arising from a project will be ring-fenced and returned to the fund until the money paid out for the project is replenished. There may be smaller projects where ring-fencing is not appropriate.

5.3 Internal and external sources of funds.

The Council has already secured £50,000 of Salix funding, and more can be obtained. £200,000 has already been budgeted in the Council’s capital programme for match funding the Salix grant and other energy efficiency and renewable energy projects. To implement the projects described and others beyond the initial period of this plan, no further capital funding (other than that already planned for buildings maintenance and replacement, replacement fleet vehicles and ICT) is required, provided that savings are ring-fenced. This will possibly mean delaying projects from 2009-10 until 2010-11 to allow enough savings to accumulate to cover its cost.

An initial annual revenue budget of £10,000 is required to pump-prime carbon management projects that do not qualify capital as well as to cover incidental and non-ring fenced spending. As ring-fenced savings from non-capital projects comes back to the fund, this annual revenue budget can be reduced.

A £12,000 grant from the Low Carbon Buildings Programme has been obtained for the PV array at Vicarage Mead, Thaxted. Government funding of this kind may be sought for other renewable energy projects.

5.4 Summary of costs and benefits of the SIP.

Figure 5-1 shows predicted costs and savings, adjusted for estimated future energy price rises of approximately 3.5% per annum, based on historic trends. These are full-year effect savings attributed to the year in which projects are carried out. As mentioned earlier, it is prudent to assume they will not be achieved until the following financial year.

Some sectors have higher costs per unit of energy or carbon. The actual distribution of savings in coming years is related to when projects in these higher-value areas such as business travel and fleet vehicles occur and deliver savings. For instance, a staff travel plan may take a few years to deliver to its full potential. Furthermore savings are not made evenly over all sectors – certain areas have greater potential for savings and therefore will contribute more to the overall target of 25% reduction in CO₂e (See Appendix A for more detail).

Naturally staff resources are also required to deliver the programme. The role of Carbon Manager, currently filled by the Energy Efficiency Surveyor, is approximately a 0.5 FTE position, or more if the policy development aspects are taken into consideration, and also requires the support of facilities management (principally the repairs manager and stewards), fleet management and to a lesser degree human resources, finance and staff generally.

Figure 5-1 Summary of predicted costs and savings

<i>Energy efficiency revenue budget</i>		£ 17,000		
<i>Energy efficiency capital budget</i>		£ 200,000		
<i>Costs covered from ring-fenced savings</i>		£ 60,000		
<i>Costs covered by other budgets*</i>		£ 162,000		
<i>Salix funding</i>		£ 167,000		
Total Estimated Expenditure		£ 606,000		
Total Annual Cost Savings (assuming savings are spread evenly over the plan period)				
2007/08	2008/09	2009/10	2010/11	2011/12
£ 56,000	£ 112,000	£ 169,000	£ 227,000	£ 286,000
Total Annual CO₂e Reductions (assuming savings are spread evenly over the plan period)				
2007/08	2008/09	2009/10	2010/11	2011/12
238 tonnes	456 tonnes	659 tonnes	847 tonnes	1,022 tonnes

*Costs covered by other budgets not included here: routine replacement of fleet vehicles, rebuilding the Thaxted Day Centre and electrical efficiency improvements resulting from rebuilding Holloway Crescent sheltered housing accommodation.

6 Programme ownership, governance, and management

6.1 Main roles and responsibilities

Role in Carbon Management Team	Name and position in the Local authority	Responsibilities
Director Sponsor	(To be determined)	<ul style="list-style-type: none"> Champion the carbon management programme at the most senior officer level Oversee overall progress and ensure the programme stays on track to deliver its objectives
Councillor Sponsor	Cllr David Sadler	<ul style="list-style-type: none"> Champion the carbon management programme to fellow councillors
Carbon Manager	Jake Roos Energy Efficiency Surveyor	<ul style="list-style-type: none"> Set objectives and develop policy Manage implementation plan Lead implementation of some projects Support implementation of other projects Act as CMT liaison for ICT projects Monitor and report progress Manage risks and issues Manage stakeholders and communication Manage external finance
Other Carbon Management Team members	Keith Osborne Head of Building Surveying	<ul style="list-style-type: none"> Support the carbon manager in executing his responsibilities Help ensure the programme stays on track to deliver its objectives
	John Farnell Energy Manager	<ul style="list-style-type: none"> Support the carbon manager in executing his responsibilities Manage energy costs, budgets and invoice data, including ring-fencing savings
	Russell Goodey Repairs Manager	<ul style="list-style-type: none"> Lead implementation of some buildings projects Support implementation of other buildings projects
	Ron Pridham Head of Street Services	<ul style="list-style-type: none"> Lead implementation of some transport (fleet) projects Support implementation of other transport projects (fleet)
	Graham Goater Accountant	<ul style="list-style-type: none"> Support management of project finances, including ring-fencing savings
	Sally Johnson Head Steward	<ul style="list-style-type: none"> Support implementation of projects in London Road Office
	Richard Auty Head of Communications	<ul style="list-style-type: none"> Lead management of communication to external stakeholders
	(To be determined)	<ul style="list-style-type: none"> Support implementation of staff travel plan Organise and minute CMT meetings

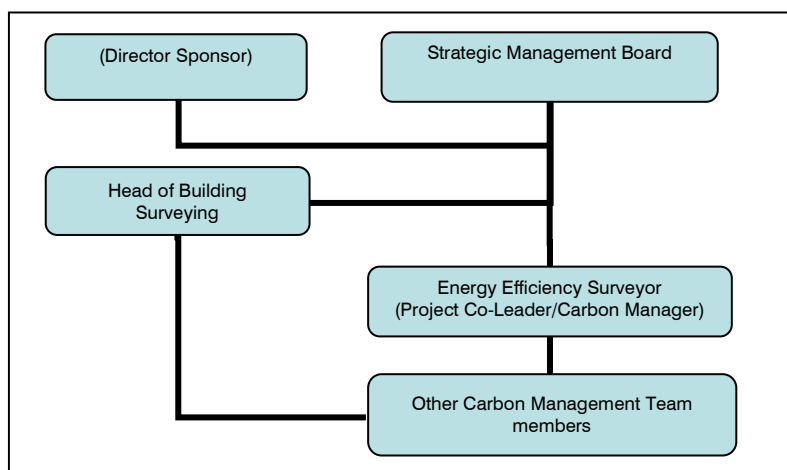
6.2 Governance

The overall carbon management programme will be managed by the Carbon Management Team (CMT), an interdisciplinary group consisting of relevant officers in facilities management, fleet management, ICT, human resources and finance. This group will have regular meetings and report its progress to the Strategic Management Board (SMB). This group will be formalised by means of an official environmental policy for the organisation and will be consulted on decisions that have consequences for the Council's direct emissions. Overall co-ordination of the carbon management programme will fall to the Energy Efficiency Surveyor. Individual carbon management projects will be led the Energy Efficiency Surveyor or by various members by CMT as appropriate.

There will be a monthly Carbon Management Team (CMT) meeting which will be led by the Carbon Manager. Progress will be discussed between the project leads and sponsors as part of every monthly CMT meeting. Minutes of these meetings will be forwarded for consideration at the following Strategic Management Board (SMB). Any serious risks or issues requiring strategic direction will be discussed at SMB; these may be presented by the Carbon Manager or Director Sponsor. A quarterly monitoring report on carbon emissions, also detailing energy savings and avoided expenditure, will be compiled by the carbon manager forwarded to senior managers and councillors, and be fed into the corporate performance monitoring system.

Major operational decisions with implications for the council's direct carbon emissions will be forwarded to CMT for comment. It will be SMB's responsibility to ensure CMT is consulted on these decisions.

Figure 6-1 Governance structure



6.3 Communications to key stakeholders

Progress of the programme and its benefits will be regularly reported to stakeholders by various means. See Annex B for communications plan. Stakeholders include:

- Members of the Carbon Management Team
- Chief Executive and Directors
- Heads of Division
- General staff
- Council leader
- Other Councillors
- Local Agenda 21
- Resident

7 Appendix A: Individual actions

Projects 2007/08

Project #	Description / location	Lead officer	CO ₂ saving tonnes/year	Energy saving kWh/year	Cost saving £/year	Project cost	% cost Salix	% cost EE	% cost other	Pay back (years)
1	'powerPerfector' voltage reduction equipment, London Road Office	J Roos	18.9	43,953	£ 3,500	£ 12,725	50%	50%	0%	3.6
<p><i>Salix project number – P001</i> <i>Risk/ mitigation – see separate business case</i> <i>Status – Completed 18-11-2007.</i></p>										
Project #	Description / location	Lead officer	CO ₂ saving tonnes/year	Energy saving kWh/year	Cost saving £/year	Project cost	% cost Salix	% cost EE	% cost other	Pay back (years)
2	Switch off campaign/PC software/timers, London Road Office	J Roos	23.3	54,186	£ 4,000	£ 630	50%	50%	0%	0.2
<p><i>Salix project number – P007/P008</i> <i>Risk – Tampering with timer plugs, settings lost from PCs over time.</i> <i>Mitigation – Work with vending machine suppliers to obtain machines with built-in timers, regularly refresh PC software energy saving settings via network.</i> <i>Status – Ongoing. Some tampering occurring with timers, but might be related to fault. Consult with supplier.</i></p>										
Project #	Description / location	Lead officer	CO ₂ saving tonnes/year	Energy saving kWh/year	Cost saving £/year	Project cost	% cost Salix	% cost EE	% cost other	Pay back (years)
3	T5 fluorescent refit, London Road Office	J Roos	4.2	9,767	£ 689	£ 2,120	45%	55%	0%	3.1
<p><i>Salix project number – P009</i> <i>Risk/ mitigation – see separate business case</i> <i>Status – Installation halted by fault in devices supplied. Working with supplier to get replacements. If problem persists, we will seek a refund.</i></p>										
Project #	Description / location	Lead officer	CO ₂ saving tonnes/year	Energy saving kWh/year	Cost saving £/year	Project cost	% cost Salix	% cost EE	% cost other	Pay back (years)
4	Loft insulation, Saffron Walden Museum	R Goodey	2.7	14,211	£ 420	£ 2,500	40%	60%	0%	6.0
<p><i>Salix project number – P002</i> <i>Risk – Savings not at level projected.</i> <i>Mitigation – Closely monitor gas use to determine performance. There is flexibility on project payback within Salix criteria.</i> <i>Status – Completed 1-11- 2007.</i></p>										
Project #	Description / location	Lead officer	CO ₂ saving tonnes/year	Energy saving kWh/year	Cost saving £/year	Project cost	% cost Salix	% cost EE	% cost other	Pay back (years)
5	Photovoltaic array, Vicarage Mead, Thaxted	J Roos	2.0	4,651	£ 696	£ 21,000	0%	100%	0%	30.2
<p><i>Risk/ mitigation – see separate business case</i> <i>Status – Installation to proceed in March 2008</i> <i>Note – Project cost does not include a £12,000 BERR grant which has been secured. Cost saving and payback does not include income from sale of Renewable Obligation Certificates (ROCs)</i></p>										



Project #	Description / location	Lead officer	CO ₂ saving tonnes/year	Energy saving kWh/year	Cost saving £/year	Project cost	% cost Salix	% cost EE	% cost other	Pay back (years)
6	New boilers, Dunmow Office	R Goodey	5.7	30,000	£ 981	£ -	0%	0%	100%	-
	<i>Status – Completed</i>									
Project #	Description / location	Lead officer	CO ₂ saving tonnes/year	Energy saving kWh/year	Cost saving £/year	Project cost	% cost Salix	% cost EE	% cost other	Pay back (years)
7	Thermostat turn down, all sheltered housing	R Goodey	76.0	400,000	£ 11,700	£ -	0%	0%	0%	0.0
	<i>Risk – Some areas become too cold for residents, controls are changed again.</i>									
	<i>Mitigation – Measure temperatures for impact, monitor complaints, formalise acceptable temperature range in policy.</i>									
	<i>Status – Completed</i>									
Project #	Description / location	Lead officer	CO ₂ saving tonnes/year	Energy saving kWh/year	Cost saving £/year	Project cost	% cost Salix	% cost EE	% cost other	Pay back (years)
8	Thermostat turn down, London Road Office	J Roos	34.0	178,947	£ 5,386	£ -	0%	0%	0%	0.0
	<i>Risk – Some areas become too cold for staff, controls are changed again.</i>									
	<i>Mitigation – Measure temperatures for impact, monitor complaints, formalise acceptable temperature range in policy.</i>									
	<i>Status – Completed</i>									
Project #	Description / location	Lead officer	CO ₂ saving tonnes/year	Energy saving kWh/year	Cost saving £/year	Project cost	% cost Salix	% cost EE	% cost other	Pay back (years)
9	M2G boiler sequencing controls, Walden Place	J Roos	22.3	117,368	£ 3,500	£ 3,700	50%	50%	0%	1.1
	<i>Salix project number – Not yet allocated.</i>									
	<i>Risk/ mitigation – see separate business case.</i>									
	<i>Status – Installed 16-01-2008 on a 3 month free trial basis to monitor impact.</i>									

Projects 2008/09

Project #	Description / location	Lead officer	CO ₂ saving tonnes/year	Energy saving kWh/year	Cost saving £/year	Project cost	% cost Salix	% cost EE	% cost other	Pay back (years)
10	'Quattroseal' draughtproofing, Walden Place	J Roos	9.0	47,368	£ 1,400	£ 2,660	50%	50%	0%	1.9
<p><i>Risk</i> – Savings not at level projected. <i>Mitigation</i> – Closely monitor gas use to determine performance. There is flexibility on project payback within Salix criteria. <i>Status</i> – Quote obtained</p>										
Project #	Description / location	Lead officer	CO ₂ saving tonnes/year	Energy saving kWh/year	Cost saving £/year	Project cost	% cost Salix	% cost EE	% cost other	Pay back (years)
11	Point of use hot water, London Road Office	J Roos	11.0	67,606	£ 1,600	£ 8,000	50%	50%	0%	5.0
<p><i>Salix project number</i> – P006 <i>Risk</i> – Project viability depends on the actual volume of hot water needed, which is difficult to measure. <i>Mitigation</i> – Determine sensitivity to volume, estimate upper range of volume and check still viable at this level. <i>Status</i> – Two quotes obtained, a third will be sought from UDC direct services.</p>										
Project #	Description / location	Lead officer	CO ₂ saving tonnes/year	Energy saving kWh/year	Cost saving £/year	Project cost	% cost Salix	% cost EE	% cost other	Pay back (years)
12	Lighting refit, Saffron Walden Museum	J Roos	7.2	16,744	£ 1,200	£ 4,000	50%	50%	0%	3.3
<p><i>Risk</i> – New Lighting system does not meet needs of the Museum. <i>Mitigation</i> – Work with museum staff to determine optimum light levels and colour rendering. <i>Status</i> – Survey of current lighting system completed.</p>										
Project #	Description / location	Lead officer	CO ₂ saving tonnes/year	Energy saving kWh/year	Cost saving £/year	Project cost	% cost Salix	% cost EE	% cost other	Pay back (years)
13	New boilers incl. M2G boiler sequencing, London Road Office	R Goodey	33.8	177,895	£ 5,326	£ 13,700	40%	60%	0%	2.6
<p><i>Risk</i> – New flue arrangements not compatible with listed building status. <i>Mitigation</i> – Work with conservation officer to develop sympathetic solution. <i>Status</i> – Not yet started</p>										
Project #	Description / location	Lead officer	CO ₂ saving tonnes/year	Energy saving kWh/year	Cost saving £/year	Project cost	% cost Salix	% cost EE	% cost other	Pay back (years)
14	T5 lighting refit, all sheltered housing	J Roos	52.0	120,930	£ 8,800	£ 17,000	50%	50%	0%	1.9
<p><i>Risk/mitigation</i> – None <i>Status</i> – Not yet started</p>										
Project #	Description / location	Lead officer	CO ₂ saving tonnes/year	Energy saving kWh/year	Cost saving £/year	Project cost	% cost Salix	% cost EE	% cost other	Pay back (years)
15	Driver training	J Roos	58.0	237,052	£ 16,882	£ 3,000	0%	100%	0%	0.2
<p><i>Risk</i> – Fuel efficient driving conflicts with needs of the service. <i>Mitigation</i> – Work with drivers to understand issues and direct attention to where savings can be made without impacting service. <i>Status</i> – In cab fuel monitoring installed, Danny Johnson receiving 'trainer training', user friendly driver performance report being developed.</p>										

Project #	Description / location	Lead officer	CO ₂ saving tonnes/year	Energy saving kWh/year	Cost saving £/year	Project cost	% cost Salix	% cost EE	% cost other	Pay back (years)
16	Virtualise server room, London Road Office	A Webb	87.0	202,326	£ 17,000	£100,000	40%	0%	60%	5.9
<p><i>Risk</i> – Project is delayed due to slowdown of capital spending. <i>Mitigation</i> – Emphasise immediate financial benefits to revenue account from implementing project. <i>Status</i> – Some development work carried out, quotes obtained.</p>										
Project #	Description / location	Lead officer	CO ₂ saving tonnes/year	Energy saving kWh/year	Cost saving £/year	Project cost	% cost Salix	% cost EE	% cost other	Pay back (years)
17	M2G boiler sequencing controls, all other sheltered housing	J Roos	104.0	547,347	£ 16,471	£ 44,400	50%	50%	0%	2.7
<p><i>Risk</i> – Devices do not have the level of impact hoped. <i>Mitigation</i> – Carrying out an in house trial of effectiveness at Walden Place <i>Status</i> – Not yet started</p>										
Project #	Description / location	Lead officer	CO ₂ saving tonnes/year	Energy saving kWh/year	Cost saving £/year	Project cost	% cost Salix	% cost EE	% cost other	Pay back (years)
18	Staff travel plan	J Roos	15.4	6,434	£ 16,800	£ 500	0%	100%	0%	0.0
<p><i>Risk</i> – Project suffers from lack of staff resource, makes little impact. <i>Mitigation</i> – Take external advice on the most effective measures. Seek additional staff resources for administration of scheme. <i>Status</i> – Updated outline plan written. Implementation not yet commenced.</p>										
Project #	Description / location	Lead officer	CO ₂ saving tonnes/year	Energy saving kWh/year	Cost saving £/year	Project cost	% cost Salix	% cost EE	% cost other	Pay back (years)
19	New Thaxted Day Centre	R Goodey	8.3	12,350	£ 2,100	£ -	0%	0%	100%	0.0
<p><i>Risk</i> – Sustainability features are 'value engineered' out in order to minimise capital cost. <i>Mitigation</i> – Work with Housing Dept and contractor to ensure most cost effective measures are taken, possibly use Salix funding to cover additional costs. <i>Status</i> – Project still in development.</p>										
Project #	Description / location	Lead officer	CO ₂ saving tonnes/year	Energy saving kWh/year	Cost saving £/year	Project cost	% cost Salix	% cost EE	% cost other	Pay back (years)
20	Install automatic meter reading in ten largest gas-use sites	J Roos	0.0	-	£ -	£ 5,000	50%	50%	0%	-
<p><i>Salix project number</i> – Not a separate Salix project: part of other heating projects <i>Risk</i> – Sites requiring meter changes to be compatible with AMR may have a short period without gas supply. <i>Mitigation</i> – Carry out work during summer when space heating requirements are minimal. Work with contractor to minimise outage. <i>Status</i> – Walden Place gas supply equipped with AMR. Other sites not yet started.</p>										



Projects 2009/10

Project #	Description / location	Lead officer	CO ₂ saving tonnes/year	Energy saving kWh/year	Cost saving £/year	Project cost	% cost Salix	% cost EE	% cost other	Pay back (years)
21	New boilers, Reynolds Court	R Goodey	14.7	77,368	£ 2,350	£ 40,000	0%	0%	100%	17.0
<i>Risk</i> – Site has individual boilers in each flat, which complicates project, increases costs and reduces efficiency. Risk that HRA budget pressures delay work. <i>Mitigation</i> – Consider a return to a centralised boiler plant system. <i>Status</i> – Not yet started										
Project #	Description / location	Lead officer	CO ₂ saving tonnes/year	Energy saving kWh/year	Cost saving £/year	Project cost	% cost Salix	% cost EE	% cost other	Pay back (years)
22	New boilers incl. M2G boiler sequencing, John Dane Player Court	R Goodey	23.6	124,211	£ 3,735	£ 35,550	0%	100%	0%	9.5
<i>Risk/mitigation</i> – None <i>Status</i> – Not yet started										
Project #	Description / location	Lead officer	CO ₂ saving tonnes/year	Energy saving kWh/year	Cost saving £/year	Project cost	% cost Salix	% cost EE	% cost other	Pay back (years)
23	Combined heat and power units, 5 largest non-biomass sheltered sites	J Roos	60.2	-	£ 18,800	£ 70,000	50%	50%	0%	3.7
<i>Risk</i> – Complex project requiring specialist knowledge. <i>Mitigation</i> – Obtain external advice from the Carbon Trust and other LAs. Possibly employ consultants to develop project /explore feasibility of an arms length ESCO. <i>Status</i> – Not yet started										



Projects 2010/11

Project #	Description / location	Lead officer	CO ₂ saving tonnes/year	Energy saving kWh/year	Cost saving £/year	Project cost	% cost Salix	% cost EE	% cost other	Pay back (years)
24	New (replacement) fleet vehicles	R Pridham	58.0	237,052	£ 16,882	£30,000	0%	100%	0%	1.8
<p><i>Risk</i> – Vehicle replacement is delayed due to capital spending constraints. <i>Mitigation</i> – Reassess situation closer to the time. <i>Status</i> – Not yet started <i>Note</i> – Project cost given is only the additional cost for purchasing two electric vehicles instead of conventional diesel vans.</p>										
Project #	Description / location	Lead officer	CO ₂ saving tonnes/year	Energy saving kWh/year	Cost saving £/year	Project cost	% cost Salix	% cost EE	% cost other	Pay back (years)
25	Biomass boiler, Alexia House	J Roos	75.0	134,709	£ 5,701	£100,000	0%	100%	0%	17.5
<p><i>Risk</i> – Securing a fuel supply of woodchip of an acceptable standard adds complexity to project. <i>Mitigation</i> – Begin working with potential suppliers and other users (e.g. Essex County Council) now to develop supply infrastructure. <i>Status</i> – Not yet started</p>										
Project #	Description / location	Lead officer	CO ₂ saving tonnes/year	Energy saving kWh/year	Cost saving £/year	Project cost	% cost Salix	% cost EE	% cost other	Pay back (years)
26	Biomass boiler, Holloway Crescent rebuild	J Roos	187.5	222,422	£ 12,000	£ 90,000	40%	0%	60%	7.5
<p><i>Risk</i> – As with project #25. Also risk of 'value engineering' out biomass in order to minimise capital costs. <i>Mitigation</i> – Work with Housing Dept and key decision makers to emphasise the lower life-cycle costs of a biomass system, using 'net present value' analysis. <i>Status</i> – Not yet started</p>										
Project #	Description / location	Lead officer	CO ₂ saving tonnes/year	Energy saving kWh/year	Cost saving £/year	Project cost	% cost Salix	% cost EE	% cost other	Pay back (years)
27	Electrical improvements (e.g. lighting), Holloway Crescent rebuild	R Goodey	27.0	62,783	£ 4,600	£ -	0%	0%	100%	-
<p><i>Risk/mitigation</i> – none <i>Status</i> – Not yet started</p>										



8 Annex B - Stakeholder Communications Plan

Individual or Group	Influence	Impact	Their interest or issues	Their information needs or messages	Means of Communication
Members of the Carbon Management Team	H	H	Carbon management, their other duties	Kept informed of programme as a whole, what they need to do, how they fit in	Monthly meetings, email, carbon monitoring report
Chief Executive and Directors	H	H	Impact on budgets, progress made, impact on service delivery	Progress reports, if there are any problems needing strategic direction	SMB meetings, email updates, CMT minutes, carbon monitoring report
Heads of Division	H	H	Impact on service delivery	Progress reports, any resource implications	HoD meetings, email updates, carbon monitoring report
General staff	M	M	How it affects their day-to-day job	Success stories and progress, importance of their habits on energy performance	Email updates, staff magazine, display energy certificates in UDC buildings, carbon monitoring report
Council leader	H	H	Impact on budgets, progress made, impact on service delivery	Progress reports, any issues of a political nature	Email updates, member champion, committee meetings & reports, carbon monitoring report, direct briefings
Other Councillors	M	M	If the programme is producing results	Progress reports, good news stories	Email updates, member champion, committee meetings & reports, carbon monitoring report
Local Agenda 21	L	M	Sustainability, whether the Council sets a good example.	Progress reports	LA21 meetings
Residents	L	M	If council is spending their money wisely, actions on environment matching words.	Whether the programme producing positive outcomes That Council is serious, making progress reducing carbon footprint	Local press, council magazine, display energy certificates in UDC buildings, 'A Greener Uttlesford' community engagement campaign.

