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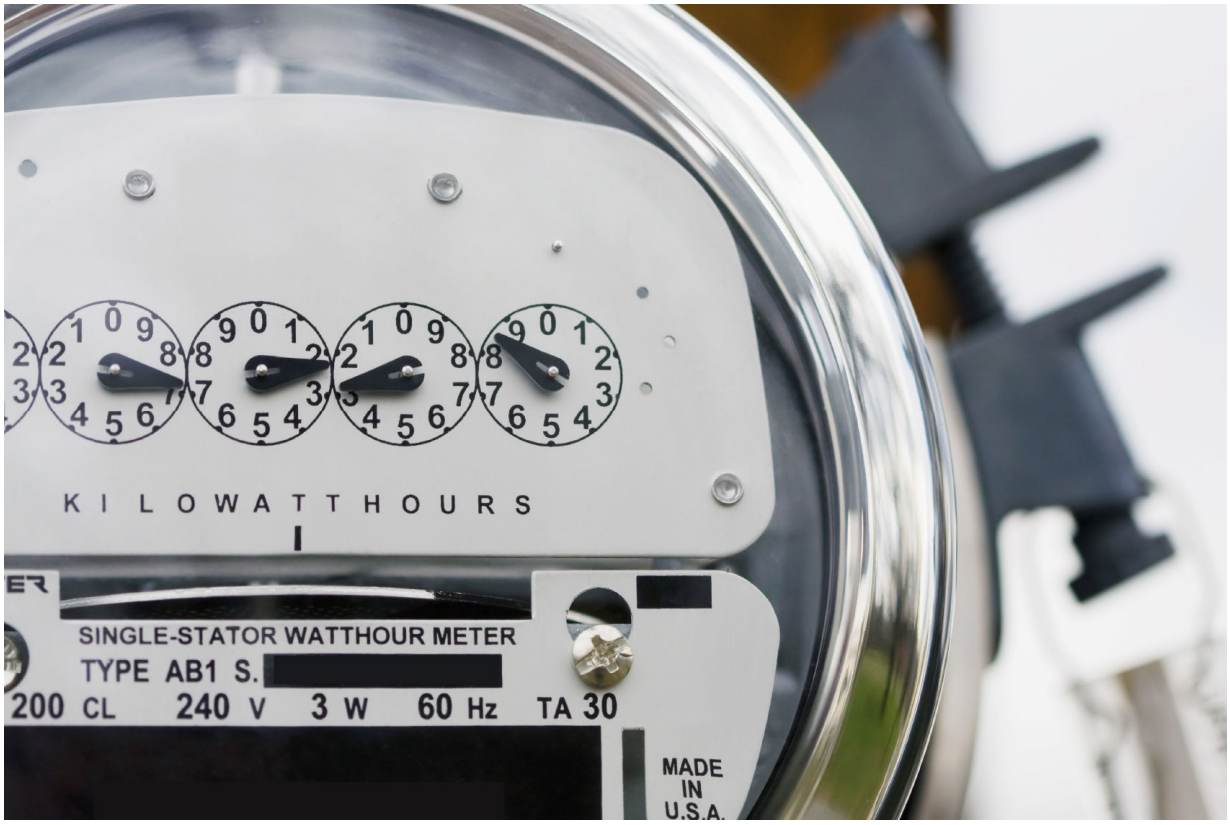
Huntingdonshire District Council Carbon Management Programme

Carbon Management Plan (CMP)



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Contents

Foreword from Huntingdonshire District Council

In April 2008 Huntingdonshire District Council was selected to join Phase 6 of the Carbon Trust's Local Authority Carbon Management Programme, in partnership with Fenland District Council. Throughout the year, officers within the Council's Environment Team have met ambitious deadlines in assessing the Authority's baseline carbon dioxide emissions and in developing a plan for carbon reduction across the Council's estates and operations.

This Carbon Management Plan has been developed to enable the delivery of projects to reduce carbon dioxide emissions as part on an ongoing programme, which supports the Councils commitment to the nationally recognised Nottingham Declaration on Climate Change and which compliments its wider Environment Strategy *"Growing Awareness – A Plan for Our Environment".*

Huntingdonshire District Council is committed to reducing its carbon footprint through energy management, improved energy efficiency and the installation of renewable technologies to mitigate climate change and counteract the trend of increasing energy prices.

The council has benefited through support for this project from the Carbon Trust and from their consultants Hitachi Consulting UK Ltd.

David Monks
Chief Executive
Huntingdonshire District Council

Cllr Terry Rodgers
Executive Councillor
Finance & Environment

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.

Huntingdonshire District Council was selected in 2008, amidst strong competition, to take part in this ambitious programme. Huntingdonshire District Council partnered with the Carbon Trust on this programme in order to realise vast carbon and cost savings. This Carbon Management Plan commits the council to a target of reducing CO_2 by 30% by 2012 and underpins potential financial savings to the council of around £2.2 million.

There are those that can and those that do. Local authorities can contribute significantly to reducing CO_2 emissions. The Carbon Trust is very proud to support Huntingdonshire District Council in their ongoing implementation of carbon management.

Richard Rugg
Head of Public Sector, Carbon Trust

CARBON TRUST

Management Summary

Background

In February 2007 Huntingdonshire District Council signed the Nottingham Declaration on Climate Change. As a signatory, the council pledged to significantly reduce greenhouse gas emissions arising from council operations. The Councils' commitment to the declaration was reiterated in June 2008 when "Growing Awareness- A Plan for our Environment", a new environment strategy with a five year action plan designed to tackle climate impacts, was launched. The action plan outlines targets to reduce carbon dioxide (CO_2) emissions by:

- Adopting an energy policy to reduce the council's energy use in all its buildings and activities.
- Installing, where appropriate, renewable energy technologies at new Council buildings and when replacing systems in existing buildings.
- Developing and implementing site specific travel plans for the Council's main sites and reducing CO_2 emissions from leased and employee owned vehicles.
- Effectively managing the Council's own vehicle fleet.

To facilitate the councils commitment to the Nottingham Declaration and Growing Awareness' together with the Corporate Vision, Huntingdonshire District Council is participating in the sixth phase of the Carbon Trust's Local Authority Carbon Management Programme (LACMP). The programme has allowed Huntingdonshire District Council to develop baseline figures and helped measure improvements towards a 30% carbon dioxide reduction target in its own operations over the next five years from baseline 2007. Additionally, it has demonstrated the feasibility of low carbon solutions district wide.

Following 9 months work with the Carbon Trust, the Carbon Management Plan (CMP) is the main output from the programme. The CMP takes a systematic approach to reduce greenhouse gas emissions over a five year period. It examines current emissions, and projected emissions, and outlines the carbon management projects identified in response. To produce the CMP, a carbon management team was established. The team, consisting of both members and officers were consulted at each stage of the programme to gain their commitment to the delivery of the CMP.

Emissions Baseline and Projections

The CMP identifies that Huntingdonshire District Council currently emits 5,959t CO_2 from buildings and transport. 62% of all emissions originate from buildings, 29% from fleet transport, 3% business mileage and 6% staff commuting (See Figure 1.0). Collectively, emissions arising from buildings and transport cost the council £1,569,480 per annum and this is continuing to rise. Cost projections, allowing for a modest 8.4%[1] business as usual increase in energy prices, suggest that if the council fails to reduce its carbon emissions, the financial value at stake (the cumulative additional cost incurred by the council over the five year life of the programme from failing to act and reduce its energy consumption) will equate to £2,214,969. This clearly highlights that doing nothing is not an option.

[1] Business-as-Usual cost increase provided by the Carbon Trust, based upon http://www.berr.gov.uk/files/file46071.pdf.

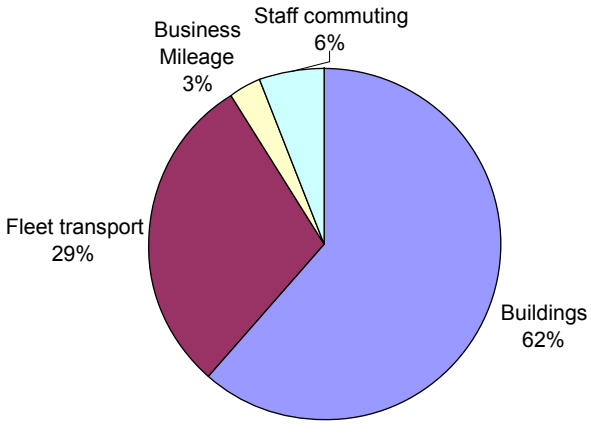

Figure 1.0. Breakdown of baseline CO2 emissions of 5,959 tonnes.

In CO_2 terms, the cumulative additional tonnage produced by Council operations if nothing is done to reduce energy consumption will be 6,249 tonnes. To demonstrate how we intend to achieve a 30% reduction in CO_2, a series of low carbon projects have been identified through the LACMP. To date, several quick wins have already been implemented, whilst other long term projects have been identified and wait funding.

Cost and Savings

The total expenditure required to implement the projects identified to date is shown in Table 1.0 below. The table also shows the cumulative carbon and financial savings resulting from the successful implementation of these projects and thus the Council achieving a 30% reduction in CO_2 emissions.

Table 1.0. The annual cost and CO_2 savings associated with the carbon management programme

	2008	2009	2010	2011	2012	TOTAL
Net present cost (£000's) of projects identified to date	**169**	**331**	**259**	**200**	**100**	**£1.1m**
Annual cumulative target CO_2 savings (tonnes)	**452**	**1,328**	**2,602**	**4,250**	**6,249**	**6,249**
Cumulative annual savings (£000's) against business as usual usage	**129**	**400**	**828**	**1427**	**2214**	**£2.2m**

NB. The figure of £1.1m shown in the first row of the table is the cost of implementing the carbon reduction projects identified to date (only). Together these projects contribute 81% of our carbon reduction target. It will therefore be necessary to identify further carbon reduction opportunities and further investment will be required if a 30% reduction target is to be successfully achieved.

Prioritisation of Carbon Reduction Opportunities

The carbon reduction opportunities identified to date are sufficient to achieve around 81% of the overall carbon reduction required. Some projects have longer payback periods than others, but all are subject to feasibility assessments and if these are acceptable, it is envisaged that all will be taken forward within the five year life of the plan. It will also be necessary to identify a significant number of additional carbon saving opportunities to ensure that the 30% overall reduction target is achieved.

This Carbon Management plan will be a working document. Evaluation of carbon reduction opportunities will take place on an ongoing basis and new projects will be included in the plan, which will be updated on an annual basis. To assist in the identification and implementation of projects, strategic direction will be maintained through regular meetings of the Carbon Management Team and future Opportunities Workshops will be held to inform key officers of progress and capture new carbon reduction opportunities.

1. Introduction

1.1 Background

Huntingdonshire District Council secured a place on the Carbon Trust's Local Authority Carbon Management Programme (LACMP) in April 2008. The programme has supported a newly adopted environment strategy, as well as the corporate vision, by facilitating the in-depth look at operations to allow the council to quantify, and reduce, its energy usage and carbon emissions. Huntingdonshire District Council is committed as a signatory to the Nottingham Declaration to putting plans in place to address the causes and impacts of climate change. Carbon reduction both from local authority operations and on a per capita basis in Huntingdonshire are also national priorities (National Indicators (NI) 185 and 186[2]).

By participating in the programme, Huntingdonshire District Council has been given the opportunity to work closely with, and learn from, other local authorities specifically by working in collaboration with Fenland District Council. Partnership working has allowed the council to develop a feasible, practical strategy in response to the challenge of climate change. It has also allowed the council to investigate how it can become more financially sustainable through implementing low carbon projects, at a time when increasing energy prices and uncertain energy supplies are placing an increasing burden upon local authority resources. In 2007 alone, the energy consumed by council buildings and transport resulted in 5,959 tonnes of carbon dioxide being emitted into the atmosphere. Collectively this cost the council a total of £1,569,480, illustrating that carbon management is therefore not just of environmental importance, but also of financial significance.

The purpose of this document, which has been produced following 9 months work with the Carbon Trust, is to demonstrate how Huntingdonshire District Council will reduce its emissions by 30% over the next five years. The CMP outlines the following:

- *Baseline 2007*: This establishes the local authority's current carbon emissions. It is against this baseline that all projects aiming to reduce consumption will be measured and the success of the CMP will be judged.
- *Future projections*: Based upon data provided by Defra, this section illustrates the environmental and financial implications of the council failing to reduce its current consumption over the next five years. The difference between the business as usual scenario and the reduced emissions scenario demonstrates a clear case for action.
- *Carbon reduction measures*: This part of the plan outlines those projects which have identified, approved or implemented by officers within the council. The contribution these measures make towards achieving the councils target is explained.
- *Carbon management financing*: This section summarises the overall cost of the programme to the local authority and the savings that it will deliver.
- *Programme implementation and management*: Finally, the manner in which carbon management will be embedded within the organisation and how the five year programme will be managed is demonstrated.

1.2 Carbon Management Timescale

The CMP outlines key deliverables over five years. Several quick wins have already been identified and implemented; however other projects are awaiting implementation. To ensure the projects are progressing sufficiently, the CMP will be monitored annually as part of the environment strategy review and progress will be published.

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[2] **NI 185**- Percentage CO_2 reduction from Local Authority operations.
NI 186- Per capita CO_2 emissions in the Local Authority area.
http://www.communities.gov.uk/documents/localgovernment/pdf/542437.pdf

2. Carbon Management Strategy

2.1 Context and drivers for Carbon Management

It is now widely accepted that climate change is driven by anthropogenic (human derived) greenhouse gas emissions. Illustrated by the Intergovernmental Panel on Climate Change's (IPCC) Fourth Assessment Report, natural forces alone cannot account for the changes in our climate. Consensus on our influence has resulted in national, regional and local regulation of greenhouse gas emissions. Legislation and guidance is now encouraging organisations to investigate their impact on the environment and ultimately reduce their footprint in response. In a time of economic uncertainty, the need to reduce energy consumption has never been so pressing. Increasing energy and fuel prices are causing great concern for local authorities, so too are uncertain fuel supplies. Aiming to use public funds efficiently, whilst making cost savings; low carbon operations are becoming increasingly important.

On the 2nd February 2007, the council made a commitment to tackle the causes and effects of climate change by signing the Nottingham Declaration. In making this pledge the council recognised that environmental issues must be fundamental to all council policies and procedures if it is to reduce its environmental footprint; reflected in the Councils Corporate Plan 'Growing Success'. In June 2008 this recognition was reinforced when "Growing Awareness", the council's newly adopted environment strategy, was published. The five-year strategy sets out a plan for the council to make continual, measurable progress in its environmental performance by integrating environmental issues into all aspects of council operations. The strategy action plan outlines targets to reduce carbon dioxide (CO_2) emissions by:

- Adopting an energy policy to reduce the council's energy use in all its buildings and activities.
- Installing, where appropriate, renewable energy technologies at new Council buildings and when replacing systems in existing buildings.
- Developing and implementing site specific travel plans for the Council's main sites and reducing CO_2 emissions from leased and employee owned vehicles.
- Effectively managing the Council's own vehicle fleet.

It is theses objectives that the LACMP has supported and contributed to. It has allowed Huntingdonshire District Council to lead by example by examining its own environmental impact, and encourage similar good practise in households and businesses in the district; thereby contributing to national priorities (National Indicators 185 and 186).

In addition to meeting strategic aims and objectives, the CMP has been developed in response to a number of other key drivers:

- Display Energy Certificates legally required under the EU Energy Performance of Buildings Directive (EPBD) for all public sector buildings with a useful floor space of over 1,000m^2.
- Public interest in environmental issues, which has grown in recent years due to increasing media attention. As a leader for the local community, Huntingdonshire District Council recognises the important role it has to play demonstrating good practise in relation to low carbon solutions and behavioural change within the district.
- The need for officer and member commitment to carbon management. In order for the authority to reduce emissions, it is vital that officers and members understand how their behaviour within the workplace impacts upon the environment.

2.2 Our low carbon vision

Huntingdonshire District Council's vision for carbon management is as follows:

The Council, recognising the need to mitigate and adapt to climate change, commits to reduce its CO_2 emissions through the implementation of a Carbon Management Plan.

Through the Plan the Council will promote behavioural change within the organisation, whilst simultaneously implementing low carbon projects to reduce consumption.

The council will encourage similar best practise in households and businesses district wide to ensure Huntingdonshire's environment is protected and improved.

2.3 Objectives and Targets

2.3.1 Strategic objectives

- To reduce carbon dioxide (CO_2) emissions generated from transport and buildings operated by the council through implementing ambitious, tangible measures.
- To increase the amount of waste that is diverted away from landfill and is recycled.
- To encourage behavioural change both within the Council and district wide through environmental awareness campaigns.
- To lead by example, demonstrating good practise both within the district and nation wide.
- To integrate carbon management into council policies and procedures.
- To deliver long term cost savings through carbon management projects

2.3.2. Targets

Huntingdonshire District Council will reduce CO_2 emissions from Council Operations by 30% by 2012 from 2007 levels.

3. Emissions Baseline and Projections

The baseline data defined in this section will form the basis of the CMP. This section projects how future trends will impact upon the council's energy consumption, and carbon emissions; demonstrating the challenge facing the council in its endeavour to achieve a 30% reduction in CO_2 emissions.

3.1 Scope

When calculating Huntingdonshire District Council's emissions baseline, the following were considered:

- Energy consumption in council-owned buildings (electricity, gas etc).
- Fuel consumption by fleet travel.
- Staff business travel.
- Staff commuting to and from work.

The factors considered are in accordance with the requirements of National Indicator 185; including all CO_2 emissions from the delivery of local authority functions.

3.2 Baseline

The baseline year chosen to calculate projections is 2007 (calendar year). To achieve an accurate, representative record of carbon emissions, data was collected in the following ways:

- Gas and electricity bills, based upon actual meter readings, allowed for the calculation of the total amount of energy consumed by council-owned buildings.
- Fuel data, relating specifically to fleet travel, was assessed by examining fuel invoices.
- Business mileage was recorded through analysing rail and car mileage claims. Due to the complexities of the car data available, an average car emissions value[3] provided by Defra was utilised. The overall effect of this will be minimal. Pool car usage was also determined, broken down by fuel type and engine size.
- Staff mileage arising from commuting to and from work was calculated through the annual Travel for Work Survey. This was broken down into the various modes of transport to get an accurate emissions value for staff travel.

All data recorded was done so using the NI 185 tool developed by Defra. A summary of emissions for baseline year 2007 is shown below (Table 2.0).

	CO_2 emissions (tonnes)	% CO_2 emissions	Cost (£)	% Cost
Buildings	3,682	62	585,079	37
Fleet transport	1,745	29	783,535	50
Business Mileage	180	3	67,282	4
Staff commuting	352	6	133,584	9

Table 2.0 Summary table for baseline year 2007.

[3] Average petrol car emissions based upon 0.21kg CO_2/km, provided by Defra: http://www.defra.gov.uk/environment/business/envrp/pdf/ghg-cf-guidelines-annexes2008.pdf

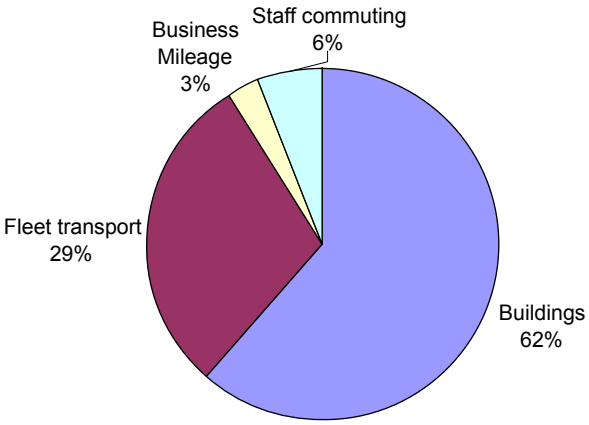

Figure 2.0 Breakdown of baseline CO_2 emissions of 5,959 tonnes.

Data shows that for baseline year 2007, a total of 5,959 tonnes of CO_2 was emitted from council operations into the atmosphere. The largest single emission source was that of buildings (See Figure 2.0). Of the 3,682 tonnes of CO_2 which was emitted from buildings, 70% of that was done so by leisure centres, illustrating the potential savings which could result by focussing resources in this area (Figure 2.1). Another significant source, which must not be overlooked, is that of offices. 21% of all emissions originated from council offices, which again highlights an area with carbon saving opportunities.

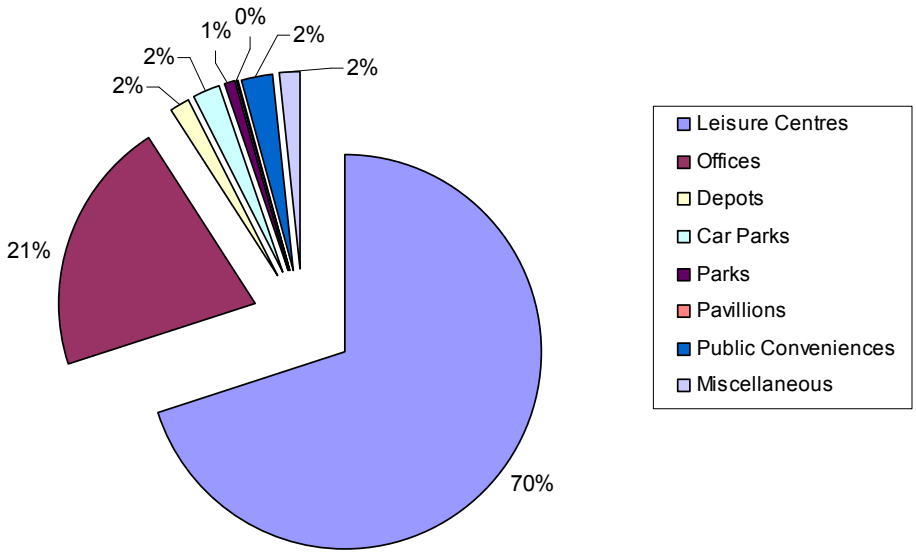

Figure 3.0 Breakdown of CO_2 emissions from Council buildings.

The remaining 2,277 tonnes of CO_2 generated was done so through council related travel. Approximately 77% of total transport emissions originated from fleet travel, whereas 15% resulted from staff commuting to and from work and 8% from business mileage. Despite being relatively small emission sources, it must be noted that commuting and business related travel are areas where simple measures could be implemented to make significant carbon savings.

3.3 Projections and Value at Stake

3.3.1 Business-as-Usual (BAU) Scenario

The BAU scenario assumes the council will fail to reduce existing trends in energy consumption (0.7% increase pa[4]) and therefore incur substantial costs due to an expected increase in energy prices (8.4% pa). By the year 2012, CO_2 emissions resulting from council operations are estimated to reach 6,170 tonnes, whilst a total cost of £2,432,482 is expected to be incurred (Figure 4.0 & Figure 5.0). This clearly highlights that doing nothing is simply not an option.

3.3.2 Reduced Emissions Scenario (RES)

The RES demonstrates the carbon and financial savings associated with Huntingdonshire District Council reducing its baseline CO_2 emissions by 30% over the next five years. By the year 2012, the RES results in the council emitting 4,171 tonnes CO_2 and incurring a total cost of £1,644,373. These savings, against BAU projections demonstrates a clear case for action (Figure 4.0 & Figure 5.0).

3.3.3 Value at stake (VAS)

The VAS refers to the difference between the BAU scenario and the RES over the entire lifetime of the carbon management programme. It is used to explain the carbon value and financial cost at stake if the council makes no attempt to reduce its energy consumption.

3.3.1 Carbon Value at Stake

It is estimated that the total carbon value at stake over the next five years is 6,249 tonnes (See Figure 4.0.).

3.3.2 Financial Value at Stake

Due to increasing energy prices, the costs incurred by the council if its energy usage continues to rise will dramatically increase. It is estimated that the financial value at stake to the council over the next five years is £2,214,969 (See Figure 5.0.).

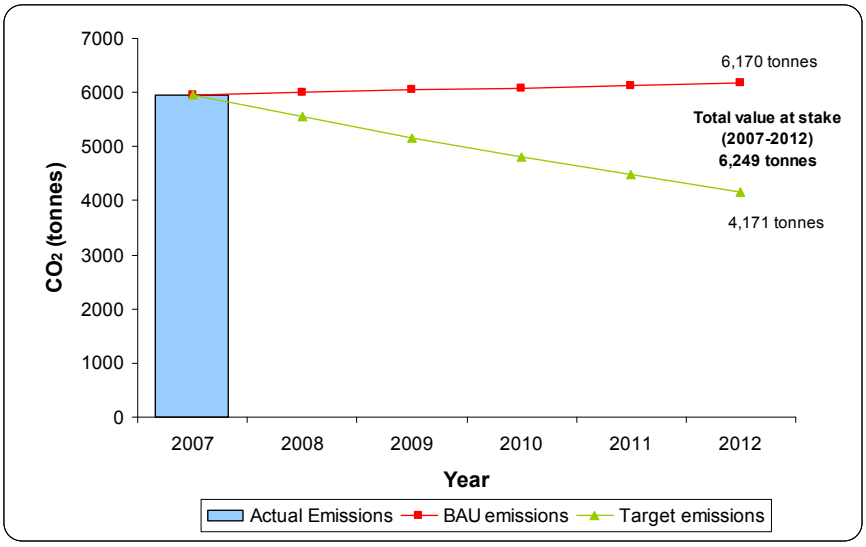

Figure 4.0. Comparison of CO_2 related emissions scenarios: BAU increases versus achieving reduction targets.

[4] Business-as-Usual demand increase value based on DTI (now DBERR) figures in EP68: http://www.berr.gov.uk/files/file11257.pdf

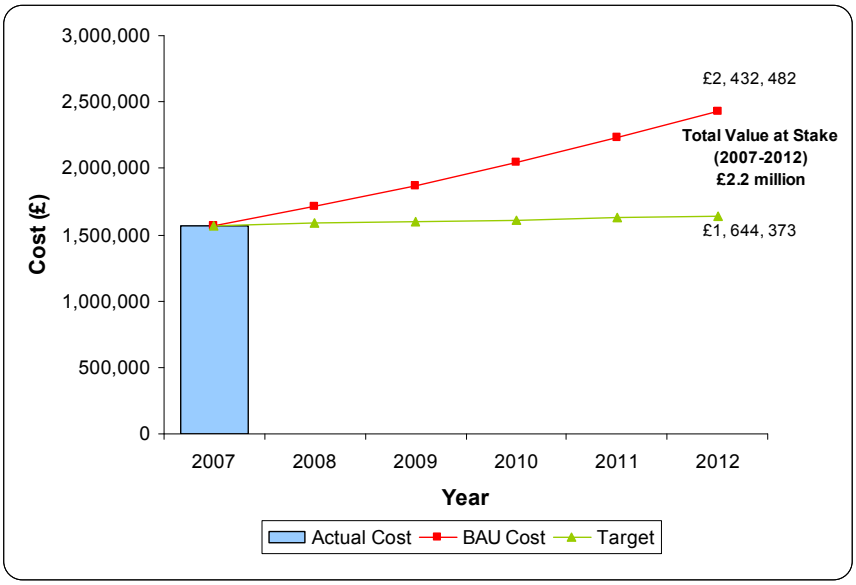

Figure 5.0. Comparison of CO_2 related cost scenarios: BAU increases versus achieving reduction targets.

4. Carbon Management Projects

This section outlines those projects that have been identified through the LACMP. Workshops were held with key stakeholders across both Huntingdonshire District Council and Fenland District Council to share best practise and engage officers in the production and the delivery of the CMP.

Several criteria were used to examine the feasibility of projects proposed. These included:

- Potential for carbon savings.
- Financial investment required.
- Staff resource/support required.
- Technical practicality.

As many of the projects identified have only just been implemented, are in the process of being implemented or still require feasibility studies, some of the figures given in the tables below at this stage are only indicative. Please see each project definition template in Appendix B for more information.

4.1 Existing projects

Please note: Combined Heat and Power is referred to as CHP.

Ref	Project	Lead	Implementation Cost (£)	Annual Saving		Pay back (years)	Year
				Fin (£)	CO_2 (tonnes)		
1.	Multifunctional Device Project	Andy Lusha	42,261	10,781	67	4	2008
2.	Pool Cars	Chris Jablonski	11,000	2,602	6	4	2008
3.	PIR sensors at Sawtry Leisure Centre	Pete Corley	600	582	4	1	2008
4.	CHP at Huntingdon Leisure Centre Site1 (wet)	Pete Corley	103,018	26,585	166	4	2008
5.	Travel plans	Chris Jablonski	12,500	29,000	65	0	2008

4.2 Planned / funded projects

Ref	Project	Lead	Implementation Cost (£)	Annual Saving		Pay back (years)	Year
				Fin (£)	CO_2 (tonnes)		
6.	Re-commission of 2006 radiators at Sawtry Leisure Centre	Pete Corley	0	217	1	0	2008
7.	Re-commission AHU's in 2006 build at Sawtry Leisure Centre	Pete Corley	0	2,896	19	0	2008
8.	Green Force scheme[5]	Tracy Martin	5,000	5,810	49	0.9	2009
9.	Wind Power at St Ivo Leisure Centre	Env Man	61,320	7,377	46	8	2009

[5] A 10% CO_2 saving, based upon calculations using only electricity data in buildings, has been claimed for the Green Force awareness campaign in accordance with guidance provided by the Carbon Trust. By establishing a network of Green Force Reps across directorates to build capacity and engagement at the local level, the longevity and effectiveness of standalone awareness campaigns is thought to increase.

4.3 Near term projects[6]

Please note: Variable speed drives are referred to as VSD and Passive Infra-Red sensors as PIR's.

Ref	Project	Lead	Implementation Cost (£)	Annual Saving		Pay back (years)	Year
				Fin (£)	CO_2 (tonnes)		
10.	Server Virtualisation	Simon Cunnell	220,000	59,072	88	4	2009
11.	St Ives Enterprise Centre	Barry LeBailly	TBC	TBC	TBC	TBC	TBC
12.	VSD to supply motors at Sawtry Leisure Centre	Pete Corley	4,000	2,616	16	1.5	2010
13.	VSD to supply motors at Ramsey Leisure Centre	Pete Corley	4,000	2,616	16	1.5	2010
14.	VSD to supply motors at Huntingdon Leisure Centre Site1 (wet)	Pete Corley	4,000	2,616	16	1.5	2010
15.	VSD to supply motors at Huntingdon Leisure Centre Site2 (dry)	Pete Corley	4,000	2,616	16	1.5	2010
16.	VSD at St Neots Leisure Centre	Pete Corley	4,000	2,616	16	1.5	2010
17.	VSD at St Ivo Leisure Centre (Indoor)	Pete Corley	4,000	2,616	16	1.5	2010
18.	PIR sensors at Ramsey Leisure Centre	Pete Corley	600	582	4	1	2010
19.	PIR sensors at Huntingdon Leisure Centre Site1 (wet)	Pete Corley	600	582	4	1	2010
20.	PIR sensors at Huntingdon Leisure Centre Site2 (dry)	Pete Corley	600	582	4	1	2010
21.	PIR sensors at St Neots Leisure Centre	Pete Corley	600	582	4	1	2010
22.	PIR sensors at St Ivo Leisure Centre (Indoor)	Pete Corley	600	582	4	1	2010
23.	Voltage reduction devices at Sawtry Leisure Centre	Pete Corley	1,357	932	6	1.5	2010
24.	Voltage reduction devices at Ramsey Leisure Centre	Pete Corley	1,357	932	6	1.5	2010
25.	Voltage reduction devices at Huntingdon Leisure Centre Site1 (wet)	Pete Corley	1,357	932	6	1.5	2010
26.	Voltage reduction devices at Huntingdon Leisure Centre Site2 (dry)	Pete Corley	1,357	932	6	1.5	2010
27.	Voltage reduction devices at St Neots Leisure Centre	Pete Corley	1,357	932	6	1.5	2010
28.	Voltage reduction devices at St Ivo Leisure Centre	Pete Corley	1,357	932	6	1.5	2010
29.	Install timers on vending machines, water coolers and other relevant equipment.	TBC	TBC	TBC	TBC	TBC	TBC

[6] Please note the savings claimed for VSD, PIR and voltage reduction leisure projects are all based upon figures provided by the Carbon Trust for Sawtry Leisure Centre. Some sites will result in greater CO_2 and financial savings, whilst others will be somewhat less. At this early stage these figures give us a good indication of the savings which we hope will be achieved. Projects will be updated as and when actual information becomes available.

30.	Install Cavity Wall Insulation at Ramsey Leisure Centre	Pete Corley	4,030	2,161	40	2	2010
31.	Install Cavity Wall Insulation at Huntingdon Leisure Centre Site1 (wet)	Pete Corley	1,674	894	55	2	2010
32.	Install Cavity Wall Insulation at Sawtry Leisure Centre	Pete Corley	4,960	2,666	17	2	2010
33.	Install Cavity Wall Insulation at Huntingdon Leisure Centre Site2 (dry)	Pete Corley	5,518	2,946	17	2	2010
34.	Install Cavity Wall Insulation at St Neots Leisure Centre	Pete Corley	6,510	3,500	22	2	2010
35.	Install Cavity Wall insulation at St Ivo Leisure Centre (indoor)	Pete Corley	1,550	834	5	2	2010

4.4 Medium to long term projects[7]

Please note: Combined Heat and Power is referred to as CHP.

Ref	Project	Lead	Implementation Cost (£)	Annual Saving		Pay back (years)	Year
				Fin (£)	CO_2 (tonnes)		
36.	CHP at Ramsey Leisure Centre	Env Man	100,024	26,585	166	4	2010
37.	CHP at St Ivo Leisure Centre (Indoor)	Env Man	100,024	27,548	172	4	2011
38.	CHP at Sawtry Leisure Centre	Env Man	100,024	26,585	166	4	2011
39.	CHP at St Neots Leisure Centre	Env Man	100,024	26,585	166	4	2012

A study to identify opportunities for zero carbon decentralised energy within the housing stock of the district will be undertaken in 2009. Historically the biggest barrier to low carbon development has been the funding of new infrastructure. It is intended that the study will identify and investigate the potential costs of this infrastructure and indicate how this barrier can be overcome including the identification of potential deliver mechanisms.

The study will initially focus on a planned urban extension in the town of St Neots which will be promoted as an 'eco-quarter'. In the longer term the initial study will form part of a wider evaluation of decentralised and renewable energy options for the district as a whole.

[7] Please note the savings claimed for CHP at Huntingdon Leisure Centre (Site2), Ramsey Leisure Centre, Sawtry Leisure Centre and St Neots Leisure Centre are based upon figures provided for Huntingdon Leisure Centre (Site1) and St Ivo Leisure Centre (Indoor). Projects will be updated as and when actual information becomes available.

4.5 Non-Capital projects

- **Incorporate the Council's vision for carbon management within the staff induction programme.** By ensuring staff are aware of the Councils approach to carbon management from the outset, it is hoped that staff will modify their behaviour in response. The Council's Environment Strategy and wider approach to environmental issues will be outlined to increase staff awareness.
- **All staff annual Travel 4 Work Survey and Staff Environment Survey.** An annual survey will allow the Council to assess whether awareness campaigns are effective and also to continue to monitor emissions associated with staff travel.
- **Develop and implement guidance to ensure sustainable and ethical purchasing within the organisation.**

4.6 Projected achievement towards target

By implementing the projects currently identified through the LACMP, Huntingdonshire District Council will achieve a 24% reduction in CO_2 emissions. Due to the nature of carbon management, the projects identified within this document are not absolute and new, innovative projects are continually being identified and implemented which will contribute to the 30% reduction target. It is vital that the CMP is continually reviewed and updated to reflect the Council's overall achievement towards the target set. It is also vital to acknowledge that to be truly sustainable, carbon management will not cease once the programme ends, but rather will remain an ongoing process.

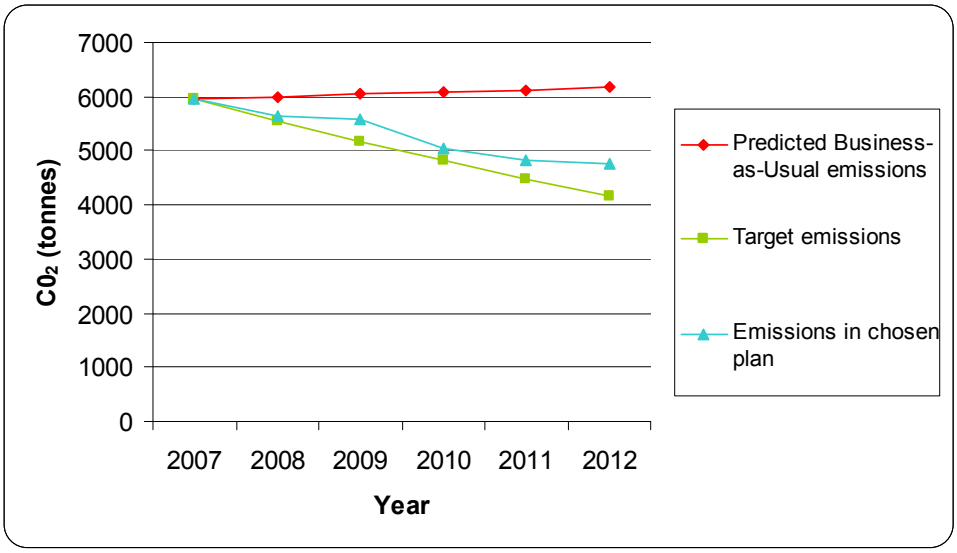

Figure 5.0. Projected achievement towards 30% reduction target.

4.7 Unquantified benefits

Carbon and financial savings will have significant unquantifiable benefits:

- Enhance the Council's reputation and public image on green issues.
- Ensure the Council is leading by example by influencing business and community.
- Improve the Council's performance against the national indicator set, especially NI 185.

5. Carbon Management Plan Financing

The primary focus of the Carbon Management Plan, the Council's Environment Strategy *Growing Awareness; A Plan for our Environment* and it's commitment to the Nottingham Declaration on Climate Change is to reduce carbon emissions and mitigate and adapt to climate change. However, reducing carbon emissions will also realise significant financial benefits for the authority at a time when increasing energy and fuel prices are causing great concern. In aiming to use public funds efficiently, whilst making cost savings; low carbon operations are becoming increasingly important.

5.1 Assumptions

In developing the Carbon Management Plan with the baseline year 2007 as the starting point, officers have looked at a number of scenarios. The Business as Usual (BAU) scenario assumes the Authority does nothing to reduce energy consumption and reflects actions already taken to reduce emissions. The projected carbon emissions have been calculated with the aid of the Carbon Trust's Baseline Toolkit and show expected emissions up to 2012. The financial cost for energy expenditure in the baseline year 2007 was approximately £1.6 million. Under the BAU scenario in 2012 energy expenditure is predicted to increase to £2.4 million due to predicted energy consumption and energy cost increases.

The Carbon management plan identifies a Reduced Emissions scenario (RES) under which emissions contract by 6% year on year with a 30% emissions reduction against the baseline year achieved in 2012. By comparing the Business as Usual scenario (BAU) against the Reduced Emissions scenario achieved through successfully implementing the Plan, the total prospective Value at Stake (VAS) up to 2012 is approximately £2.2 million, this is the aggregated difference between the predicted energy spend for the Business as Usual scenario and the energy spend in a Reduced Emissions scenario.

5.2 Benefits/savings- quantified and un-quantified

Of the 39 projects identified by the plan, some are existing (already funded) projects. Others, such as the Corporate Travel Plan and Green Force initiative, are low, or nil cost measures, which will encourage behavioural change in employee travel or use of council buildings. Other projects such as the use of combined heat and power systems at Council leisure centres are 'spend to save' initiatives that will achieve significant cost savings after an initial investment.

The average payback period for all of the projects identified to date is 4 years. Whilst some projects have received funding through the MTP process (Huntingdon Leisure Centre CHP), others require funding and will be subject to the usual budgetary process. Some of the projects identified involve implementing renewable technologies. These projects will attract significant external grant funding from the government operated Low Carbon Buildings Programme. In the case of the St Ivo Leisure Centre (outdoor) wind turbine project, this will amount to 50% of the total funding requirement.

	2008	2009	2010	2011	2012+	TOTAL
Net present cost (£000's) of projects identified to date	**169**	**331**	**259**	**200**	**100**	**£1.1m**
Annual cumulative target CO_2 savings (tonnes)	**452**	**1,328**	**2,602**	**4,250**	**6,249**	**6,249**
Total cumulative annual savings covering the 5 years of the programme (£000's)- against business as usual usage	**129**	**400**	**828**	**1427**	**2214**	**£2.2m**

Table 3.0 Costs and savings of the projects identified to date.

5.3 Additional Resources

The successful delivery of this Carbon Management Plan will require non financial resources, specifically employee time. It is anticipated that two days a week will be required from officers within the Council's Environment Team to coordinate implementation, monitor and record progress, secure funding and manage an invest to save budget. This level of commitment will be required throughout the five year programme. It will also be necessary for the Carbon Management Project team to continue to meet to support the lead officer and the Project Sponsor will be required to continue to update COMT.

5.4 Financial costs and sources of funding

The investment required to implement the projects so far identified within this plan is shown in the table below, broken down annually for the period 2008 – 2012.

figures in £1000's	2008	2009	2010	2011	2012
Annual costs:					
Total annual capital cost	**169**	**331**	**259**	**200**	**100**
Total annual revenue cost	**0**	**0**	**0**	**0**	**0**
Total costs	**169**	**331**	**259**	**200**	**100**
Committed funding:					
Committed annual capital	**169**	**285**	**0**	**0**	**0**
Committed annual revenue	**0**	**0**	**0**	**0**	**0**
Total funded	**169**	**285**	**0**	**0**	**0**
Unallocated funding					
Unallocated annual capital	**0**	**46**	**259**	**200**	**100**
Unallocated annual revenue	**0**	**0**	**0**	**0**	**0**
Total unfunded	**0**	**46**	**259**	**200**	**100**

Table 4.0 Costs and sources of funding for projects identified in the LACMP.

It has already been indicated that a variety of funding sources will be sought to enable delivery of the projects identified within the plan. To fund some of the capital projects the Council will seek to obtain 50% funding from an independent not-for-profit company founded by the Carbon Trust in 2004, Salix Finance.

Salix Finance work with public sector bodies to reduce energy costs and carbon emissions by providing match funding in the form of a conditional grant based on the size of a local authority's energy spend. Initial discussions with Salix have indicated that the Council may be eligible for an initial conditional grant of £75,000 which the Council would be required to match fund to provide a ring fenced pot of £150,000. Savings from projects undertaken will be recycled within the pot to fund further energy saving projects to generate further carbon savings annually. It is envisaged that by recycling funding in this way and reinvesting the savings made, a total pot of £450,000 could be generated.

Discussions with Salix financing are ongoing but an application is planned for June 2009 so that eligible projects can receive funding as soon as possible within the current financial year. Salix funding is only available for projects deemed cost effective, based on the payback period and the 'persistence' of the measure i.e. how long it will continue to deliver savings before renewal is necessary.

At least 20 of the projects identified within the plan meet the Salix funding requirements, including:

- Voltage Optimisation
- Variable Speed Drives
- Insulation
- Timers/Vending Controls
- PIRs

6. Actions to Embed Carbon Management in Your Organisation

In this section, plans to embed the consideration of carbon emissions through the authority are outlined. The Carbon Management Embedding Matrix, provided by the Carbon Trust has provided a framework against which all areas have been scored to clearly demonstrate where we are currently and where and what action is required over the next 5 years to achieve a 30% reduction in CO_2 from baseline year 2007 (See Appendix A for a copy of the Matrix tool).

6.1 Corporate Strategy – embedding CO_2 saving across your organisation

Current score: 4
Score in 5 year's time: 5

The council is committed to making a continual, measurable improvement in its environmental performance, driven predominantly by its Environment Strategy 'Growing Awareness – A Plan for our Environment' which was adopted in April 2008. The objectives of the document are embedded within the Council's policy framework in the following manner:

- 'Helping to mitigate and adapt to climate change' has been identified as a key priority within the Council's Corporate Plan 'Growing Success'.
- The Council also has a comprehensive performance management framework which monitors all work areas and ensures that they are linked via a 'corporate scorecard' and contribute to achieving our key priorities.
- One of the key activities monitored via the corporate scorecard is 'identifying opportunities to reduce CO_2 emissions from the Council's own operation'.
- Lead officers have been identified for each of the projects contained within the Carbon Management Plan and progress against delivering these projects will be monitored via individual Service Plans/Work Plans and individual Officers Key Performance Areas (KPAs)

Areas for development to take the Council forward in embedding carbon reduction across the authority will include:

- Setting targets for different service areas/directorates – Smart metering within the Council's new Headquarters building will enable floor by floor if not directorate by directorate energy monitoring.
- Embedding these disaggregated targets into service area / directorate business plans – this reinforces local commitment and ensures funding / resources are available to meet them.

6.2 Programme Management – bringing it all together effectively

Current score: 2
Score in 5 year's time: 5

By engaging with key stakeholders across both Huntingdonshire District Council and Fenland District Council through workshop events, a comprehensive list of carbon reduction opportunities has been developed. By working in joint collaboration with Fenland District Council, the Council continues to share best practise and gain support with the LACMP.

Led by the Carbon Trust, the workshops undertaken to date have ensured the Council has gained both officer and member commitment to the projects identified. Lead offers have been identified for each project to ensure the projects continue to develop at a sufficient rate. Projects are tied to posts within the organisation to ensure that projects do not stall in the event of a project lead being unable to continue their role.

To ensure the projects are progressing at a sufficient rate, regular monitoring of this document will be required. For this reason, a formal review of progress against the Carbon Management Plan will take place on an annual basis and will involve calculating the actual carbon and financial savings achieved, as well as analysing the many unquantifiable benefits associated with project implementation. These results will then be communicated to officers and members throughout the council (see Section 6.5).

For the duration of the LACMP, it will be necessary to continually review the projects within the Carbon Management Plan and add to them. To ensure carbon management continues to gain momentum within the organisation, following one to one support provided by the Carbon Trust, it will be necessary to hold further workshops will both members and officers to identify further carbon saving opportunities. This will be done on an annual basis and the plan will be updated accordingly.

6.3 Responsibility – being clear that saving CO_2 is everyone's job

Current score: 2
Score in 5 year's time: 5

Fundamental to the Council reducing its CO_2 emissions by 30% over the next five years is increasing the awareness of individuals within the organisation to environmental issues and carbon management.

Responding to this need, the Council will develop a network of 'Green Force Reps' to engage officers and members at a local level; a method proven to increase the effectiveness and longevity of awareness campaigns. Green Force will involve representatives from teams across the council planning, overseeing and coordinating a series of environmental projects in a bid to reduce the Councils environmental footprint. The project will be coordinated by the Environment Team and will be supported by 'Member Green Force Reps'.

To measure the progress of projects contained within the Carbon Management Plan, individual Service Plans/Work Plans and individual officers Key Performance Areas (KPAs) will be utilised. This will ensure project leads take direct responsibility for their projects and report on their progress regularly. The regular monitoring and reviewing of the progress of projects and the identification of new projects will be vital to assess the actual overall CO_2 savings achieved against the proposed savings outlined.

6.4 Data Management – measuring the difference, measuring the benefit

Current score: 3
Score in 5 year's time: 5

Gas and electricity billing information for all Council buildings is collated centrally by the Council's Environmental Management Administration Team. Accurate electricity consumption data is currently obtained through a combination of automatic half hourly meter readings at larger sites (over 100kW usage) and consultants are employed to read both gas and electricity meters on a monthly basis at smaller sites. The consultants readings are then compared to the estimated bills received quarterly at these sites.

As part of this plan the opportunity to install Automatic Meters for both electricity and gas across the Council's estate will be explored. Automatic Meter reading leads to improved energy management by providing the following benefits:

- Reliable gathering of accurate energy consumption data
- Eliminates the need to read and submit meter readings
- An end to estimates, avoiding unexpected charges, complex credits and rebilling
- Demonstrate trends and highlight excess energy use

The Council's electricity supplier Scottish and Southern electricity (SWALEC) is currently offering the provision of Automatic Meters free of charge at smaller sites for councils purchasing through the Eastern Shires Purchasing Organisation (ESPO). The Council currently purchases it's electricity direct from (SWALEC) and but will investigate whether free meters can be provided within our currently contractual arrangements.

6.5 Communication and Training – ensuring everyone is aware

Current score: 2
Score in 5 year's time: 5

The Carbon Management Plan is the first step in demonstrating the Council's commitment to addressing climate change at a local level. The Plan aims to reduce CO_2 emissions resulting from all aspects of the Council's day to day operations; buildings, fleet transport, staff commuting and business mileage. It examines how energy is currently being consumed and investigates where carbon and financial savings can be made.

To be successful and result in a 30% reduction in CO_2, officer and member buy-in to the programme and participation within it is vital. Communicating the benefits of the programme and feeding back on the success of the projects is therefore of utmost importance. So too is the need to continually reinforce the need to further identify carbon reduction opportunities. To ensure everyone is aware, the Council will increase the awareness of the programme through:

- Information on the intranet
- Articles in the Councils newsletter- Team News
- Awareness raising posters and competitions
- Staff surveys
- E-mails
- Green Force Reps
- Further workshops with the Carbon Management Team
- Chief Officer Management Team (COMT) briefings

There is a need to ensure new staff, as well as existing staff, are aware of the Councils approach to carbon management, and the reasons for the approach. To ensure new starters are aware from the outset, the Council will include a section on the environment strategy within the induction programme. This will allow the Council to highlight its low carbon vision and it's strive towards developing a low carbon council culture.

The authority's achievements will also be communicated externally to demonstrate the measures being taken by the Council to reduce its carbon emissions, and approach to tackling climate change. By doing so, the Council hopes to demonstrate best practise within the local community and encourage other organisations to adopt a similar approach to improving the environment sustainability of their practises. The Council's activities will be communicated via:

- Press releases
- Articles in the bi-monthly residents magazine- District Wide
- Community engagement events
- Council website
- Huntingdonshire Strategic Partnership- via the Environment Forum

As leisure centres produce 70% of all CO_2 emissions arising from Council buildings, it is especially important that the Council demonstrates how it is reducing consumption at these sites. Pull up banners and posters have been developed by the Leisure Centres to communicate the energy policies in place, whilst promotional materials, provided by the Carbon Trust, are being used to remind customers how they can do their bit for the environment when accessing the leisure sites.

6.6 Finance and Investment – the money to match the commitment

Current score: 3
Score in 5 year's time: 5

It is anticipated that projects identified within the plan will be funded through the Council's Medium Term Planning Process or as invest to save projects either financed exclusively from the council's own resources or by obtaining match funding from external sources.

Project leads will be required to bid for funding for their carbon reduction and projects with shorter payback times will be funded as invest to save bids. Additional funding will be sought through the SALIX financing scheme. Grant funding from the Low carbon Building Programme will also be sought for projects involving the installation of renewable energy sources.

6.7 Policy Alignment – saving CO_2 across your operations

Current score: 2
Score in 5 year's time: 5

The Council is currently in the process of producing a sustainable procurement strategy. Procurement has a key role to play in delivering the Authority's carbon reduction objectives and the aim of the strategy is to ensure that sustainable purchasing is incorporated into the whole procurement process: defining the need, evaluating options, design and specifying, supplier selection, tender evaluation, post-contract management and supplier development.

To ensure that travel by employees of the Council fits with the objectives of the plan, a review of the essential user allowance system is also taking place advocating a move to a single tier allowance scheme. Abolishing 'essential' and 'casual' user status will remove incentives for employees to drive their own private cars at work and encourage the use of the Council's fleet of pool cars. The current scheme pays a higher mileage rate for a larger engine size which is currently an incentive to drive potentially higher emission vehicles. Essential users are also required to drive at least 1,500 miles otherwise the lump sum they receive can be taken away from them, which is again an incentive to ensure that this level of mileage is achieved during the year.

The procurement Strategy will be completed by the Council's Procurement Officer in 2009 and the Head of Human Resources will lead the review of Employees travel allowances. It is hoped that this project will be completed in 2009/10.

7. Programme Management of the CM Programme

Good programme governance is fundamental to the delivery of the CMP. By gaining clear ownership to deliver the CMP, and thus NI 185, through engaging with Members and Officers at Huntingdonshire District Council, all action plans have been brought together to establish a holistic, coordinated approach to carbon management. The key stakeholder groups and individuals involved with the production of Huntingdonshire District Councils CMP are illustrated below (Figure 6.0).

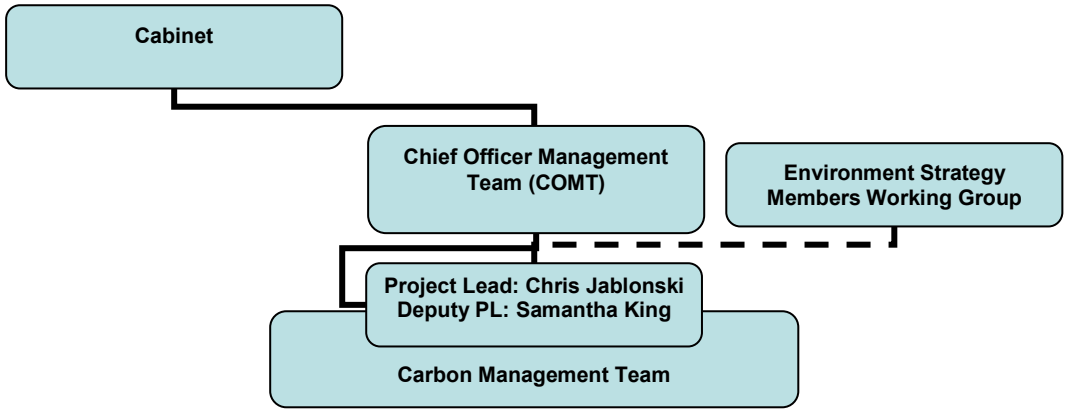

Figure 6.0. Governance of the carbon management programme.

Throughout all developmental stages of the Councils CMP, Cabinet and Members of the Council have been made fully aware of the programme, the reasoning behind it and the projects being considered. Cabinet will approve the final version of the CMP and will be responsible for its ultimate sign off. Additionally, it is vital that all Chief Officers, through the Chief Officer Management Team (COMT), are aware of the possibilities and the potential for both carbon and cost savings through the projects identified by officers within the Carbon Management Team.

7.1 Chief Officer Management Team (COMT) – strategic ownership and oversight

It will be the responsibility of COMT to provide a strategic overview of the Carbon Management Plan. To enable this progress will be reported to COMT on a six monthly basis as the plan is implemented. Reporting will include:

- Details of CO_2 savings against the Councils 30% reduction target
- Financial savings achieved
- An assessment of less quantifiable benefits such as the results of behavioural change initiatives
- Blockages to achieving the objectives of the plan

On the basis of the information received on activities and projects undertaken, COMT will be able to gauge the progress of the plan and identify any issues that they feel need resolving in relation to overall plan delivery or the progress of individual projects identified within the plan.

The primary link between COMT, Members and the Carbon Management Team will be the Project Sponsor; Malcolm Sharp who will play a key role in reporting the progress of the CMP to Members and COMT and setting the strategic direction for carbon management. The CMP will also directly link into the delivery of Huntingdonshire District Councils Environment Strategy and the CMP's progress will be reported through the Environment Strategy annual review process.

Role	Name and position in the LA	Contact details
Project Leader	Chris Jablonski Team Leader, Environment	01480 388368 chris.jablonski@huntsdc.gov.uk
Deputy Project Leader	Samantha King Environmental Management Officer	01480 388268 samantha.king@huntsdc.gov.uk
Project Sponsor	Malcolm Sharp Director of Environmental & Community Services	01480 388301 malcolm.sharp@huntsdc.gov.uk
Chief Officer Management Team (COMT)	David Monks Chief Executive	01480 388001 andrea.lucken@huntsdc.gov.uk
	Ian Leatherbarrow Director of Central Services	01480 388047 ian.leatherbarrow@huntsdc.gov.uk
	Malcolm Sharp Head of Environmental and Community Services	01480 388300 malcolm.sharp@huntdc.gov.uk
	Terry Parker Director of Commerce and Technology	01480 388100 terry.parker@huntsdc.gov.uk

7.2 The Carbon Management Team – delivering the projects

The Carbon Management Team consists of key officers within the Council who are directly involved in the delivery of the CMP. The Project Lead will chair bi-monthly meetings of the Carbon Management Team to review the progress of activities and projects to identify any blockages that need to be raised with the Programme Board.

Role	Name and position in the LA	Contact details
Carbon Management Team Members	Janet Warren Facilities Management Officer	01480 388394 janet.warren@huntsdc.gov.uk
	Nigel Arkle Procurement Manager	01480 388104 nigel.arkle@huntsdc.gov.uk
	Pete Corley Health & Safety Co-ordinator, Leisure Services	01480 388369 pete.corley@huntsdc.gov.uk
	Wayne Channon HR & Payroll Systems Manager	01480 388158 wayne.channon@huntsdc.gov.uk
	Oliver Colbert Principal Accountant	01480 388109 oliver.colbert@huntsdc.gov.uk
	Pete Lummis Project Manager	01480 388372 pete.lummis@huntsdc.gov.uk
	Julia Blackwell Environmental Management Officer	01480 388288 julia.blackwell@huntsdc.gov.uk
	Heather Gilling Communications & Marketing Manager	01480 388033 heather.gilling@huntsdc.gov.uk
	Tracey Seaton Administration Officer	01480 388304 tracey.seaton@huntsdc.gov.uk
	Andrew Howes ICT Operations Manager	01480 388121 andrew.howes@huntsdc.gov.uk

7.3 Succession planning for key roles

As the Carbon Management Programme looks to implement carbon saving opportunities over the next five years, it is necessary to demonstrate how the projects will progress in the event that a project lead leaves his/her post. To prevent the programme stalling due to staff turnover before the programme has been fully established and embedded, we have ensured that the projects are not tied to the individuals involved but rather to posts within the authority.

In the event that a project lead leaves his/her post, his/her successor will take on that role and progress that project further.

7.4 Ongoing stakeholder management

Individual or Group	Their interest or issues	Means of Communication
HDC Cabinet and Members of the Council	Necessary for all members to be fully aware of the ongoing development of the Carbon Management Plan.	Six monthly reports to Cabinet.
Chief Officer Management Team	Vital for all chief Officers to be aware of the possibilities and the potential for both carbon and cost savings as a result of the projects under consideration.	Six monthly reports to COMT.
Cllr Terry Rogers Environment	Aside from Malcolm Sharp, Councillor Rogers will be the primary link with Cabinet and Councillors in general.	Regular updates from Paul Jose/Malcolm Sharp
Malcolm Sharp Director of Environmental & Community Services	As project sponsor Malcolm will be the primary link between the Carbon Management Team, Chief Officers and Members	Regular updates from Paul Jose and attendance at future opportunities workshops.
Greening the Business Project Group	Greening the Business Project Group doubles as the Carbon Management Team but the remit covers all internal projects deemed to bring environmental benefit. The team will be responsible for scoping possible projects in their service areas and communicating the aims of the project to colleagues	Future opportunities workshops- to be determined. Quarterly Greening the Business project meetings.
Steve Couper Head of Finance	Costs/Budgets	Project Lead to liaise regularly regarding progress of individual projects and annual spend on invest to save initiatives. Future opportunities workshops- to be determined.
Robert Ward Head of Operations	Fleet Management, options for fuel use, vehicle renewals and engine management systems to limit fuel use	Operations representative on the Greening the Business group to update regularly.
Chris Hall Head of Information Management	A number of projects have been identified concerning the way we manage information and ICT Services. Server Virtualisation being that presenting the greatest scope.	IMD representative on the Greening the Business group to update regularly.

Heather Gilling Communications & Marketing Manager	Important to provide a consistent and accessible message to Members Staff and the wider community as part of the wider publicity around the Environment Strategy. Team News will play a significant role in publicising the project internally.	Project Lead to liaise regularly. Future opportunities workshops- to be determined.

7.5 Annual progress review

A formal review of progress against the Carbon Management Plan will take place on an annual basis. Statistical analysis of the carbon reduction achieved by the Council will take place every calendar year, whereas a review of the projects identified and any proposed projects will take place alongside the Councils Medium-Term Planning (MTP) process. This will also coincide with the review of "Growing Awareness-A Plan for our Environment", Huntingdonshire District Council's Environment Strategy.

CO_2 savings against the Councils 30% reduction target will be assessed, so too will the financial savings achieved and other less quantifiable benefits will be assessed to holistically demonstrate the impact carbon management has had each year. Progress will be reported to Cabinet annually.

Huntingdonshire DISTRICT COUNCIL working with CARBON TRUST

Appendix A: Carbon Management Matrix - Embedding

	CORPORATE STRATEGY	PROGRAMME MANAGEMENT	RESPONSIBILITY	DATA MANAGEMENT	COMMUNICATION & TRAINING	FINANCE & INVESTMENT	POLICY ALIGNMENT *
BEST 5	• Top level target allocated across organisation • CO_2 reduction targets in Directorate Business Plans	• Cabinet / SMT review progress against targets on quarterly basis • Quarterly diagnostic reports provided to Directorates • Progress against target published externally	• CM integrated in responsibilities of senior managers • CM part of all job descriptions • Central CO_2 reduction advice available • Green Champions leading local action groups	• Quarterly collation of CO_2 emissions for all sources • Data externally verified • M&T in place for: ○ buildings ○ street lighting ○ waste	• All staff given formalised CO_2 reduction: ○ induction and training ○ communications • Joint CM communications with key partners • Staff awareness tested through surveys	• Finance committed for 2+yrs of Programme • External funding being routinely obtained • Ring-fenced fund for carbon reduction initiatives	• CO_2 friendly operating procedure in place • Central team provide advice and review, when requested • Barriers to CO_2 reduction routinely considered and removed
4	• CO_2 reduction commitment in Corporate Strategy • Top level targets set for CO_2 reduction • Climate Change Strategy reviewed annually	• Sponsor reviews progress and removes blockages through regular Programme Boards • Progress against targets routinely reported to Senior Mgt Team	• CM integrated in to responsibilities of department heads • Cabinet / SMT regularly updated • Staff engaged though Green Champion network	• Annual collation of CO_2 emissions for: ○ buildings ○ street lighting ○ transport ○ waste • Data internally reviewed	• All staff given CO_2 reduction: ○ induction ○ communications ○ CM matters communicated to external community	• Coordinated financing for CO_2 reduction projects via Programme Board • Finances committed 1yr ahead • Some external financing	• Comprehensive review of policies complete • Lower level policies reviewed locally • Unpopular changes being considered
3	• CO_2 reduction vision clearly stated and published • Climate Change Strategy endorsed by Cabinet and publicised with staff	• Core team regularly review CM progress: ○ actions ○ profile & targets ○ new opportunities	• An individual provides full time focus for CO_2 reduction and coordination across the organisation • Senior Sponsor actively engaged	• Collation of CO_2 emissions for limited scope i.e. buildings only	• Environmental / energy group(s) given ad hoc: ○ training ○ communications	• A view of the cost of CO_2 reduction is developing, but finance remains ad-hoc • Some centralised resource allocated • Finance representation on CM Team	• All high level and some mid level policies reviewed, irregularly • Substantial changes made, showing CO_2 savings
2	• Draft Climate Change Policy • Climate Change references in other strategies	• Ad hoc reviews of CM actions progress	• CO_2 reduction a part-time responsibility of a few department champions	• No CO_2 emissions data compiled • Energy data compiled on a regular basis	• Regular awareness campaigns • Staff given CM information on ad-hoc basis	• Ad hoc financing for CO_2 reduction projects	• Partial review of key, high level policies • Some financial quick wins made
1 **Worst**	• No policy • No Climate Change reference	• No CM monitoring	• No recognised CO_2 reduction responsibility	• No CO_2 emissions data compiled • Estimated billing	• No communication or training	• No specific funding for CO_2 reduction projects	• No alignment of policies for CO_2 reduction

* Major operational policies and procedures, e.g. Capital Projects, Procurement, HR, Business Travel

Appendix B: Definition of Projects

Reducing HDC's Environmental Footprint: Project Definition Ref: 1

Project Reference	***Multifunctional Device Project***
Project Management	*Environment Team*
Lead officer	*Andy Lusha*
Department	*Administration*
Description	Installation of Multifunctional Devices throughout Council offices to reduce the amount of energy consumed by individual devices.
Benefits	• Financial savings: £10,781 pa • Payback period: 4 years • Energy saving: 125,358 kWh's/yr • CO_2 Emissions reduction: 67 tonnes of CO_2 pa • Operational life of the project (before renewal): 3 years
Funding	• Financial investment: £42,261 • Operational costs: £12,647 pa • Source of funding: Internal.
Resources	• *This project will be delivered within current resources.*
Ensuring Success	• To maximise the energy savings achieved, it will be necessary to promote waste minimisation within the organisation and train individuals on the most efficient way of using the devices. The Green Champions scheme will support this project.
Measuring Success	• Meter readings, running reports and logging use of the printers.

Project Timescales	• Milestones / key dates e.g.
	  ○ Start of implementation- January 2009
	  ○ Ongoing project

Notes	

Reducing HDC's Environmental Footprint: Project Definition

Ref: 2

Project: **Reference:**	***HDC Pool Cars***
Project Management	*Environmental Team*
Lead officer	*Chris Jablonski*
Department	*Environmental Management*
Description	*In April 2007 the Council purchased a fleet of four low emission pool cars as part of the Corporate Travel Plan. The fleet consists of a Toyota Prius Hybrid with emissions of 104g of CO_2 per kilometre and three Toyota Yaris with CO_2 emissions of 119g/km.* *It is anticipated that when the fleet is being used at full capacity (71,000km per year) there will be significant CO_2 savings from employees not using their own, often less efficient vehicles, for work miles and also by encouraging a modal shift away from travelling to work by car, in the knowledge that the pool cars are available should a car be needed during the working day.*
Benefits	• Financial savings: £2,602. • CO_2 Emissions reduction: **6 Tonnes CO_2 Per Annum** when fleet operating at capacity. • Operational life of the project (ongoing)
Funding	• Financial investment: £11,000 per annum, lease hire of vehicles • Operational costs: £ 6,000 per annum maintenance, servicing etc. • *Source of funding: Internal* • *Funded project*
Resources	• *No additional resource required, this project will be delivered within current resources.*
Ensuring Success	• *To enable the scheme to be delivered at zero net cost adequate promotion of the vehicles will be required* • *Principal risks: Vehicles used insufficiently to warrant continuation of scheme. Administration of scheme places unacceptable burden on current resources*
Measuring Success	• *Monthly spreadsheet for vehicle use can be used to calculate costs and carbon savings* • *Current vehicles on three year lease which runs until April 2010. Evaluation of scheme will be undertaken prior to renewal of lease agreement.*
Project Timescales	• *Existing Project running initially to April 2010*
Notes	*Overview of progress* *Include photographs of project wherever possible*

Reducing HDC's Environmental Footprint: Project Definition Ref: 3

Project Reference	***Passive Infra-Red sensors at Sawtry Leisure Centre***
Project Management	*Environmental Team*
Lead officer	*Pete Corley*
Department	*Leisure Services*
Description	*Installation of passive infrared sensors to the sports hall and old building changing and toilet facilities, these will be directly linked to the lighting in these rooms.*
Benefits	• Financial savings: £582 pa • Payback period: 1 year • Energy saving: 6,770 kWh's/yr • CO_2 Emissions reduction: 4 tonnes of CO_2 pa • Operational life of the project (before renewal):10 years • Physical evidence to users of our environmental commitment to our carbon footprint (posters to be displayed when completed).
Funding	• Financial investment: £600 • Operational costs: £0 pa • *Source of funding: internal.* • *Maybe eligible for Enhanced Capital Allowance* • *The decision was granted back in April 2008.*
Resources	• *Additional resource: none.*
Ensuring Success	• *The units will not require any user interaction once installed; the success should be noticed straight away with the first month of metre readings.*
Measuring Success	• *Metre Readings*

Project Timescales	• *Milestones / key dates e.g.*
	  ○ *Programmed around operations and the school*
	  ○ *Delivery September 2008*
	  ○ *Commission date September 2008*
	  ○ *Will deliver financial savings by October 2009.*

Notes	*The installation so far was slightly delayed due to access to some of the changing facilities over the summer holiday period, currently the only outstanding work is the sports hall.*

Reducing HDC's Environmental Footprint: Project Definition

Ref: 4

Project Reference	***Combined Heat and Power (CHP) at Huntingdon Leisure Centre Site1 (wet)***
Project Management	*Environment Team*
Lead officer	*Pete Corley*
Department	*Leisure Services*
Description	*Installation of a combined heat and power system to provide the leisure centre with a proportion of its energy requirements.*
Benefits	• Financial savings: £26,585 • Payback period: 4 years • Energy saving: 309,124 kWh's/yr • CO_2 Emissions reduction: 166 tonnes of CO_2 pa • Operational life of the project (before renewal): 15 years
Funding	• Financial investment: £103,018 • Operational costs: £29,633 pa • *Source of funding: MTP bid* • *The decision was granted in February 2008.*
Resources	• *Additional resource: None. Wayne Palmer had office shift set aside for the delivery of the unit.* • *An additional fee of £1,397 was required for EDF (£1,000 allowed in original cost) but came to £2,397.*
Ensuring Success	• *Health & Safety method statements and Risk Assessments along with a site visit were all made pre delivery which allowed a successful delivery of the unit.*
Measuring Success	• *Metre Readings* • *Electronic reports from CHP unit.*

Project Timescales	• *Milestones / key dates e.g.*
	  ○ *Programmed around operations and the school*
	  ○ *Delivery July 2008*
	  ○ *Commission date September 2008*
	  ○ *Will deliver savings (after payback time) in 8th running year*

Notes	*Overview of progress* *The delivery and instillation of the unit ran smoothly* *See photos attached G:\Climate Change\LACM Programme\CHP Pictures\CHP Pictures*

Reducing HDC's Environmental Footprint: Project Definition

Ref: 5

Project: Reference:	***Corporate Travel Plan***
Project Management	*Environment Team*
Lead officer	*Chris Jablonski*
Department	*Environmental Management*
Description	*The Councils Corporate Travel Plan, published in 2006, includes an over arching target to reduce the percentage of employees travelling to work alone by car to 50% by 2009/10, by achieving a modal shift to more sustainable alternatives bringing significant reductions in CO_2 emissions.* *In the baseline year of 2007 63% of employees travelled to work alone by car (as measured through the Annual Travel for Work Survey, undertaken in conjunction with the Cambridgeshire Travel for Work Partnership). If the headline target of 50% by 2010 is achieved this will amount to a saving of 130 tonnes of CO_2 or 65 tonnes per annum, based of the following formula:-* *Average number of working days per annum (250) x Average return journey to work (30km) x average CO_2 emissions from Private UK car (167.2g/km) x % of employees Travelling to work alone by car (63% in 2007 –50% in 2010 based on 794 total full time, part time and temporary employees in 2007)* *The following projects contained within the plan are together designed to achieve the overall modal shift and necessary reduction in carbon emissions:* • *Camshare – promoting car sharing* • *Cycling and walking promotions* • *Introduction of Site Specific Travel Plans* • *Home working* • *Public Transport* • CO_2 Emissions reduction: 65 tonnes of CO_2 pa
Benefits	• Financial savings: £29,000 • Payback period: 0 • CO_2 Emissions reduction: 65 t 2008, 130t 2009, 2010, 2011, 2012.
Funding	• Financial investment – £12,500
Resources	• *Project will be delivered within current resources*
Ensuring Success	• *Site specific employee travel plans to be implemented at each of the Council's main sites* • *Principal risks: Lack of officer time to prepare site specific plans*
Measuring Success	• *Modal shift away from sole occupant use of the private car* • *Measured by annual Travel for Work Survey* • *Review of the Corporate Travel Plan in 2010/11*
Project Timescales	• *Ongoing project with targets until 2009/10 – Then reassessed*

Reducing HDC's Environmental Footprint: Project Definition

Ref: 6

Project: Reference:	***Re-commission of 2006 Radiators at Sawtry Leisure Centre***
Project Management	*Environment Team*
Lead officer	*Pete Corley*
Department	*Leisure Services*
Description	*During the Carbon Trust survey it was noticed that the radiators were on in the newer (2006) building area because the controls and valve gear have not been correctly commissioned.* *It is therefore recommended that the controls etc are re-commissioned to operate correctly.*
Benefits	• Financial savings: £217 pa • Payback period: 0 years-Immediate • Energy saving: 7,500 kWh's/yr • CO_2 Emissions reduction: 1 tonnes of CO_2 pa • Operational life of the project (before renewal): 15 years
Funding	• Financial investment: £0 • Operational costs: £50 pa • *The decision was granted in August 2008 for plant survey.*
Resources	• *Additional resource: Time will be given to Andy Bainbridge to accompany the engineer from Universal Systems and Controls Ltd during the survey.*
Ensuring Success	• *Key success factors: The completion of the survey done by Universal Systems and Controls Ltd.*
Measuring Success	• *Metre Readings.* • *Noticeable internal environmental conditions improve.* • *Reduction of reactive maintenance work in the coming years.*

Project Timescales	• *Milestones / key dates e.g.*
	  ○ *Programmed around operations and the school.*
	  ○ *Delivery of survey September 2008.*
	  ○ *Will deliver savings as soon as re-commissioning has taken place.*
	  ○ *The time needed to chase up the original installers.*

Notes	*The survey will be of the whole building; this may highlight other areas that need to be re-commissioned. The pool hall and the changing areas have currently got environmental temperature issues, with the knowledge gained from the survey a further plan will be made to action the re-commissioning of the old building's plant and AHU.*

Reducing HDC's Environmental Footprint: Project Definition

Ref: 7

Project: Reference:	***Re-commission AHU's in 2006 build at Sawtry Leisure Centre***
Project Management	*Environment Team*
Lead officer	*Pete Corley*
Department	*Leisure Services*
Description	*During the Carbon Trust survey it was reported that the air handling unit (AHU) heater batteries were always on even during hot weather because the controls and valve gear has not been correctly commissioned.* *It is therefore recommended that the controls etc are re-commissioned to operate correctly.* *The actual consumption by these units has been estimated using information provided and some assumptions. Potential savings have been estimated at 20%*
Benefits	• Financial savings: £2,896 pa • Payback period: 0 years- Immediate • Energy saving: 100,214 kWh's/yr • CO_2 Emissions reduction:19 tonnes of CO_2 pa • Operational life of the project (before renewal): 10 years
Funding	• Financial investment: £ 0 • Operational costs: £200 pa. • *The decision was granted in August 2008 for plant survey.*
Resources	• *Additional resource: Time will be given to Andy Bainbridge to accompany the engineer from Universal Systems and Control Ltd during the survey.*
Ensuring Success	• *Key success factors: The completion of the survey done by Universal Systems and Control Ltd.*
Measuring Success	• *Metre Readings.* • *Noticeable internal environmental conditions improve.* • *Reduction of reactive maintenance work in the coming years.*

Project Timescales	• *Milestones / key dates e.g.*
	  ○ *Programmed around operations and the school.*
	  ○ *Delivery of survey in September 2008.*
	  ○ *Will deliver savings as soon as the re-commissioning has taken place.*
	  ○ *The time needed to chase up the original installers.*

Notes	*The survey will be of the whole building; this may highlight other areas that need to be re-commissioned. The pool hall and the changing areas have currently got environmental temperature issues, with the knowledge gained from the survey a further plan will be made to action the re-commissioning of the old building's plant and AHU.*

Reducing HDC's Environmental Footprint: Project Definition

Ref: 8

Project Reference	***Green Force***
Project Management	*Environment Team*
Lead officer	*Tracy Martin*
Department	*Environmental Management*
Description	*A staff awareness campaign involving representatives from teams across the council planning, overseeing and coordinating a series of environmental projects.*
Benefits	• Financial savings: £7,887 pa • Payback period: 0 years • Energy saving: 91,706 kWh's/yr • CO_2 Emissions reduction: 49 tonnes of CO_2 pa • Operational life of the project (before renewal): 4 years
Funding	• Financial investment: £5,000 • Operational costs: £5,000 pa • *Source of funding: internal- MTP bid.*
Resources	• *This project will be delivered within current resources. The Green Champions scheme will be coordinated by the Environment Team.*
Ensuring Success	• *Key success factors: The successful recruitment of Green Force Reps across all directorates and a commitment to the programme over the lifetime of the project. To ensure the project is successful it will be necessary to have good support and feedback structures in place to maintain interest in the scheme.* • *Principal risks: We are unsuccessful in recruiting Green Force Reps and keeping them interested in the scheme.*
Measuring Success	• *Meter Readings* • *Annual Green Survey- illustrating behavioural change that the scheme results in.* • *Increasing number of individuals interested in the Green Force initiative.*

Project Timescales	• *Milestones / key dates*
	  ○ *Recruitment Drive: Start May 2009*
	  ○ *First Official Green Champions meeting: 5th June 2009*

Notes	*Please see Appendix C for associated Green Champions Communications Plan.*

Reducing HDC's Environmental Footprint: Project Definition

Ref: 9

Project: Reference:	***Wind Power at the St Ivo Leisure Centre***
Project Management	*Environment Team*
Lead officer	*Pete Corley*
Department	*Leisure Services*
Description	*Installation of wind turbines to provide the leisure centre with a proportion of its energy requirements*
Benefits	• Financial savings: £11,283 pa • Payback period: 8 years • Energy saving: 85,780 kWh's/yr • CO_2 Emissions reduction: 46 tonnes of CO_2 pa • Operational life of the project (before renewal): 25 years
Funding	• Financial investment: £122, 639 (50% grant funding will reduce Council funding required). • Operational costs: £1,000 pa • *Potential source of funding: E.ON Source Fund-up to £30,000, Low Carbon Buildings Programme Phase 2-up to 50% of total (requires planning approval first) HDC/CCC. BRE CSEP- up to £50k or 50% of total-application is complex and time consuming.* • *SRE Technologies can complete applications on our behalf, yes, but the application must come from the applicant not the consultant or the installer.*
Resources	• *Staff training is provided on completion of the project, i.e. emergency shutdown procedures in case of buildings etc.* • *This project will be delivered within current resources.*
Ensuring Success	• *Planning approval, Funding, DNO approval.* • *If any of the above were not approved, it would be difficult for the project to proceed. i.e. planning, funding and DNO approval.*
Measuring Success	• *Successful installation of turbines on site* • *Success in gaining grant funding* • *Energy Generation in line with projections*

Project Timescales	• *Milestones / key dates e.g.*
	  ○ *LCBP Funding Application April 2009 – (Approved)*
	  ○ *Planning Application (summer 2009)*
	  ○ *completion Spring (2010)*

Notes	

Reducing HDC's Environmental Footprint: Project Definition

Ref: 10

Project Reference	***Server Virtualisation***
Project Management	*Environment Team*
Lead officer	*Simon Cunnell*
Department	*Information Management Division (IMD)*
Description	The Consolidation of many physical servers into multiple Virtual environments hosted on a single platform This is done to Reduce Cost, Energy Consumption, Heat Output, Rack Space, rollout, time taken to support, as well as increase Resilience and Availability This can be attained due to the speed of modern Processors and the under utilisation of a single Operating system running on them (Typically as low as 5%). It is now possible to run 12 or more Virtual Operating Systems on a single Physical Host, pushing utilisation towards 60% and therefore leveraging investments. To remove the element of 'All your eggs in one Basket', Physical Hosts are configured in Farms, enabling Virtual Operating Systems to be run in the most efficient and resilient manor spread across the farm of hosts.
Benefits	• Financial savings: £59,072 pa • Payback period: 4 years • Energy saving: 163,628h's/yr • CO_2 Emissions reduction: 88 tonnes of CO_2 pa • Operational life of the project (before renewal): 5 years
Funding	• Financial investment: £220,000 • Operational costs: £20,000 pa • *Source of funding: internal* • *MTP bid approved in March 2009*
Resources	• IMD – Project being delivered within current resources
Ensuring Success	• Project has been agreed and is in the process of being implemented
Measuring Success	• *End of ICM contract covering current hardware in place- saving £40,000pa.* • *Reduction in energy consumed by servers*
Project Timescales	• *Milestones / key dates e.g.* ○ *start of implementation: April 2009*
Notes	

Reducing HDC's Environmental Footprint: Project Definition

Ref: 11

Project Reference	***St Ives Enterprise Centre***
Project Management	*Environment Team*
Lead officer	*Barry LeBailly*
Department	*Environmental Management*
Description	
Benefits	• Financial savings: • Payback period: • Energy saving: • CO_2 Emissions reduction: • Operational life of the project (before renewal):
Funding	• Financial investment: • Operational costs:
Resources	
Ensuring Success	
Measuring Success	
Project Timescales	
Notes	

Reducing HDC's Environmental Footprint: Project Definition

Ref: 12

Project Reference	***Variable Speed Drives (VSD) to supply motors at Sawtry Leisure Centre***
Project Management	*Environment Team*
Lead officer	*Pete Corley*
Department	*Leisure Services*
Description	*Sawtry Leisure Centre operates 4 air handling units, each with supply and extract fans, plus a main pool pump.* *These fans and pump run continuously at full speed regardless of demand.* *If a variable speed device (VSD) i.e. inverter, were fitted to the motor, the fan/pump speed could be reduced to suit the requirement.* *Substantial savings can be made by fitting inverters to centrifugal fans and pumps and slowing them down by a small amount. A 10% reduction in speed results in a 30% reduction in motor energy consumption.* *Many systems are 'over engineered' and fan speeds can often be reduced a small amount without a detrimental effect on the operation of the system.* *An additional saving not included in these calculations is that the heat extracted from the building is reduced with lower fan speeds.*
Benefits	• Financial savings: £2,616 pa • Payback period: 1.5 years • Energy saving: 30,420 kWh's/yr • CO_2 Emissions reduction: 16 tonnes of CO_2 pa • Operational life of the project (before renewal):10 years
Funding	• Financial investment: £4,000 • Operational costs: £200 pa • *Source of funding: internal-maybe eligible for a CT loan.* • *Maybe eligible for Enhanced Capital Allowance.*
Resources	• *Approach manufacturers of inverters, they may be willing to demonstrate the potential savings on the sites extraction system. Implement this initiative if demonstration proves successful.*
Ensuring Success	• *The units will not require any user interaction once installed, the success should be noticed straight away with the first month of metre readings*
Measuring Success	• *Metre Readings*

Project Timescales	• *Milestones / key dates e.g.*
	  ○ *Programmed around operations and the school*
	  ○ *Conduct a trial period before installation.*
	  ○ *Implementation in December 2009*

Notes	*The survey will be of the whole building; this may highlight other areas that need to be re-commissioned. The pool hall and changing areas have currently got environmental temperature issues, with the knowledge gained from the survey a further plan will be made to action the re-commissioning of the old building's plant and AHU.*

Reducing HDC's Environmental Footprint: Project Definition

Ref: 13

Project Reference	***Variable Speed Drives (VSD) to supply motors at Ramsey Leisure Centre***
Project Management	*Environment Team*
Lead officer	*Pete Corley*
Department	*Leisure Services*
Description	
Benefits	• Financial savings: • Payback period: • Energy saving: • CO_2 Emissions reduction: • Operational life of the project (before renewal):
Funding	• Financial investment: • Operational costs:
Resources	
Ensuring Success	
Measuring Success	
Project Timescales	• *Milestones / key dates e.g.*
Notes	

Reducing HDC's Environmental Footprint: Project Definition

Ref: 14

Project Reference	***Variable Speed Drives (VSD) to supply motors at Huntingdon Leisure Centre Site1 (wet)***
Project Management	*Environment Team*
Lead officer	*Pete Corley*
Department	*Leisure Services*
Description	
Benefits	• Financial savings: • Payback period: • Energy saving: • CO_2 Emissions reduction: • Operational life of the project (before renewal):
Funding	• Financial investment: • Operational costs:
Resources	
Ensuring Success	
Measuring Success	
Project Timescales	
Notes	

Reducing HDC's Environmental Footprint: Project Definition

Ref: 15

Project Reference	***Variable Speed Drives (VSD) to supply motors at Huntingdon Leisure Centre Site2 (dry)***
Project Management	*Environment Team*
Lead officer	*Pete Corley*
Department	*Leisure Services*
Description	
Benefits	• Financial savings: • Payback period: • Energy saving: • CO_2 Emissions reduction: • Operational life of the project (before renewal):
Funding	• Financial investment: • Operational costs:
Resources	
Ensuring Success	
Measuring Success	
Project Timescales	
Notes	

Reducing HDC's Environmental Footprint: Project Definition

Ref: 16

Project Reference	***Variable Speed Drives (VSD) to supply motors at St Neots Leisure Centre***
Project Management	*Environment Team*
Lead officer	*Pete Corley*
Department	*Leisure Services*
Description	
Benefits	• Financial savings: • Payback period: • Energy saving: • CO_2 Emissions reduction: • Operational life of the project (before renewal):
Funding	• Financial investment: • Operational costs:
Resources	
Ensuring Success	
Measuring Success	
Project Timescales	
Notes	

Reducing HDC's Environmental Footprint: Project Definition

Ref: 17

Project Reference	***Variable Speed Drives (VSD) to supply motors at St Ivo Leisure Centre (Indoor)***
Project Management	*Environment Team*
Lead officer	*Pete Corley*
Department	*Leisure Services*
Description	
Benefits	• Financial savings: • Payback period: • Energy saving: • CO_2 Emissions reduction: • Operational life of the project (before renewal):
Funding	• Financial investment: • Operational costs:
Resources	
Ensuring Success	
Measuring Success	
Project Timescales	
Notes	

Reducing HDC's Environmental Footprint: Project Definition

Ref: 18

Project Reference	***Passive Infra-Red (PIR) sensors at Ramsey Leisure Centre***
Project Management	*Environment Team*
Lead officer	*Pete Corley*
Department	*Leisure Services*
Description	
Benefits	• Financial savings: • Payback period: • Energy saving: • CO_2 Emissions reduction: • Operational life of the project (before renewal): • Physical evidence to users of our environmental commitment to our carbon footprint (posters to be displayed when completed).
Funding	• Financial investment: • Operational costs: •
Resources	
Ensuring Success	
Measuring Success	
Project Timescales	
Notes	

Reducing HDC's Environmental Footprint: Project Definition

Ref: 19

Project Reference	***Passive Infra-Red (PIR) sensors at Huntingdon Leisure Centre Site1 (wet)***
Project Management	*Environment Team*
Lead officer	*Pete Corley*
Department	*Leisure Services*
Description	
Benefits	• Financial savings: • Payback period: • Energy saving: • CO_2 Emissions reduction: • Operational life of the project (before renewal): • Physical evidence to users of our environmental commitment to our carbon footprint (posters to be displayed when completed).
Funding	• Financial investment: • Operational costs:
Resources	
Ensuring Success	
Measuring Success	
Project Timescales	
Notes	

Reducing HDC's Environmental Footprint: Project Definition

Ref: 20

Project Reference	***Passive Infra-Red (PIR) sensors at Huntingdon Leisure Centre Site2 (dry)***
Project Management	*Environment Team*
Lead officer	*Pete Corley*
Department	*Leisure Services*
Description	
Benefits	• Financial savings: • Payback period: • Energy saving: • CO_2 Emissions reduction: • Operational life of the project (before renewal): • Physical evidence to users of our environmental commitment to our carbon footprint (posters to be displayed when completed).
Funding	• Financial investment: • Operational costs:
Resources	
Ensuring Success	
Measuring Success	
Project Timescales	
Notes	

Reducing HDC's Environmental Footprint: Project Definition

Ref: 21

Project Reference	***Passive Infra-Red (PIR) sensors at St Neots Leisure Centre***
Project Management	*Environment Team*
Lead officer	*Pete Corley*
Department	*Leisure Services*
Description	
Benefits	• Financial savings: • Payback period: • Energy saving: • CO_2 Emissions reduction: • Operational life of the project (before renewal): • Physical evidence to users of our environmental commitment to our carbon footprint (posters to be displayed when completed).
Funding	• Financial investment: • Operational costs:
Resources	
Ensuring Success	
Measuring Success	
Project Timescales	
Notes	

Reducing HDC's Environmental Footprint: Project Definition

Ref: 22

Project Reference	***Passive Infra-Red (PIR) sensors at St Ivo Leisure Centre (Indoor)***
Project Management	*Environment Team*
Lead officer	*Pete Corley*
Department	*Leisure Services*
Description	
Benefits	• Financial savings: • Payback period: • Energy saving: • CO_2 Emissions reduction: • Operational life of the project (before renewal) • Physical evidence to users of our environmental commitment to our carbon footprint (posters to be displayed when completed).
Funding	• Financial investment: • Operational costs: •
Resources	
Ensuring Success	
Measuring Success	
Project Timescales	
Notes	

Reducing HDC's Environmental Footprint: Project Definition

Ref: 23

Project: **Reference:**	***Voltage Reduction Devices at Sawtry Leisure Centre***
Project Management	*Environment Team*
Lead officer	*Pete Corley*
Department	*Leisure Services*
Description	Most of the Leisure Centre areas are lit utilizing fluorescent strip lights or metal halide. Voltage reduction devices reduce the voltage on the lighting circuit by up to 15% after an initial 'warm-up' period on full voltage. This reduction in voltage can yield up to 25% reduction in energy consumption on high-pressure sodium lighting and up to 35% reduction in consumption on fluorescent lighting. There is a small reduction in lighting output but this is often either acceptable or unperceivable as many areas are over lit in the first instance. The above savings assume that the supply voltage is 240V, however, if the Power optimization initiative is implemented the supply voltage will be 220V and the potential saving will be lower. The saving potential in the figures shown above has been estimated to be 12%.
Benefits	• Financial savings: £932 pa • Payback period:1.5 years • Energy saving: 10,833 kWh's/yr • CO_2 Emissions reduction: 6 tonnes of CO_2 pa • Operational life of the project (before renewal): 10 years • The use of these controllers has also been shown to extend lamp life further when used in conjunction with tri-phosphor fluorescent tubes.
Funding	• Financial investment: £1,357 • Operational costs: £150pa • *Source of funding: internal- maybe eligible for CT loan.* • *Maybe eligible for Enhanced Capital Allowance.*
Resources	• *Conduct a trial installation in a selected area of one site. Measure power consumption and light levels in the selected area before and after the installation of the voltage controllers.*
Ensuring Success	• *The units will not require any user interaction once installed; the success should be noticed straight away with the first month of metre readings.*
Measuring Success	• *Metre Readings.*

Project Timescales	• *Milestones / key dates e.g.*
	  ○ *Programmed around operations and the school.*
	  ○ *Conduct a trial period before installation.*
	  ○ *Installation 2009*

Notes	*It is vital hat the process is monitored, it may not prove suitable in the sports hall if the light output is reduced too much, this will effect badminton sessions. There are some types of ballast that are not suitable for use with voltage controllers. The controllers will not work in conjunction with high frequency fittings.*

Reducing HDC's Environmental Footprint: Project Definition

Ref: 24

Project Reference	***Voltage Reduction Devices at Ramsey Leisure Centre***
Project Management	*Environment Team*
Lead officer	*Pete Corley*
Department	*Leisure Services*
Description	
Benefits	• Financial savings: • Payback period: • Energy saving: • CO_2 Emissions reduction: • Operational life of the project (before renewal):
Funding	• Financial investment: • Operational costs:
Resources	
Ensuring Success	
Measuring Success	
Project Timescales	
Notes	

Reducing HDC's Environmental Footprint: Project Definition

Ref: 25

Project Reference	***Voltage Reduction Devices at Huntingdon Leisure Centre Site1 (wet)***
Project Management	*Environment Team*
Lead officer	*Pete Corley*
Department	*Leisure Services*
Description	
Benefits	• Financial savings: • Payback period: • Energy saving: • CO_2 Emissions reduction: • Operational life of the project (before renewal):
Funding	• Financial investment: • Operational costs:
Resources	
Ensuring Success	
Measuring Success	
Project Timescales	
Notes	

Reducing HDC's Environmental Footprint: Project Definition

Ref: 26

Project Reference	***Voltage Reduction Devices at Huntingdon Leisure Centre Site2 (dry)***
Project Management	*Environment Team*
Lead officer	*Pete Corley*
Department	*Leisure Services*
Description	
Benefits	• Financial savings: • Payback period: • Energy saving: • CO_2 Emissions reduction: • Operational life of the project (before renewal):
Funding	• Financial investment: • Operational costs:
Resources	
Ensuring Success	
Measuring Success	
Project Timescales	
Notes	

Reducing HDC's Environmental Footprint: Project Definition

Ref: 27

Project Reference	***Voltage Reduction Devices at St Neots Leisure Centre***
Project Management	*Environment Team*
Lead officer	*Pete Corley*
Department	*Leisure Services*
Description	
Benefits	• Financial savings: • Payback period: • Energy saving: • CO_2 Emissions reduction: • Operational life of the project (before renewal):
Funding	• Financial investment: • Operational costs:
Resources	
Ensuring Success	
Measuring Success	
Project Timescales	
Notes	

Reducing HDC's Environmental Footprint: Project Definition

Ref: 28

Project Reference	***Voltage Reduction Devices at St Ivo Leisure Centre (Indoor)***
Project Management	*Environment Team*
Lead officer	*Pete Corley*
Department	*Leisure Services*
Description	
Benefits	• Financial savings: • Payback period: • Energy saving: • CO_2 Emissions reduction: • Operational life of the project (before renewal):
Funding	• Financial investment: • Operational costs:
Resources	
Ensuring Success	
Measuring Success	
Project Timescales	
Notes	

Reducing HDC's Environmental Footprint: Project Definition

Ref: 29

Project Reference	***Install timers on vending machines, water coolers and other relevant equipment***
Project Management	*Environment Team*
Lead officer	
Department	
Description	
Benefits	• Financial savings: • Payback period: • Energy saving: • CO_2 Emissions reduction: • Operational life of the project (before renewal):
Funding	• Financial investment: • Operational costs:
Resources	
Ensuring Success	
Measuring Success	
Project Timescales	
Notes	

Reducing HDC's Environmental Footprint: Project Definition

Ref: 30

Project Reference	***Install Cavity Wall Insulation at Ramsey Leisure Centre***
Project Management	*Environment Team*
Lead officer	*Pete Corley*
Department	*Leisure Services*
Description	
Benefits	• Financial savings: • Payback period: • Energy saving: • CO_2 Emissions reduction: • Operational life of the project (before renewal):
Funding	• Financial investment: • Operational costs:
Resources	
Ensuring Success	
Measuring Success	
Project Timescales	
Notes	

Reducing HDC's Environmental Footprint: Project Definition

Ref: 31

Project Reference	***Install Cavity Wall Insulation at Huntingdon Leisure Centre Site1 (wet)***
Project Management	*Environment Team*
Lead officer	*Pete Corley*
Department	*Leisure Services*
Description	
Benefits	• Financial savings: • Payback period: • Energy saving: • CO_2 Emissions reduction: • Operational life of the project (before renewal):
Funding	• Financial investment: • Operational costs:
Resources	
Ensuring Success	
Measuring Success	
Project Timescales	
Notes	

Reducing HDC's Environmental Footprint: Project Definition

Ref: 32

Project Reference	***Install Cavity Wall Insulation at Sawtry Leisure Centre***
Project Management	*Environment Team*
Lead officer	*Pete Corley*
Department	*Leisure Services*
Description	
Benefits	• Financial savings: • Payback period: • Energy saving: • CO_2 Emissions reduction: • Operational life of the project (before renewal):
Funding	• Financial investment: • Operational costs:
Resources	
Ensuring Success	
Measuring Success	
Project Timescales	
Notes	

Reducing HDC's Environmental Footprint: Project Definition

Ref: 33

Project Reference	***Install Cavity Wall Insulation at Huntingdon Leisure Centre Site2 (dry)***
Project Management	*Environment Team*
Lead officer	*Pete Corley*
Department	*Leisure Services*
Description	
Benefits	• Financial savings: • Payback period: • Energy saving: • CO_2 Emissions reduction: • Operational life of the project (before renewal):
Funding	• Financial investment: • Operational costs:
Resources	
Ensuring Success	
Measuring Success	
Project Timescales	
Notes	

Reducing HDC's Environmental Footprint: Project Definition

Ref: 34

Project Reference	***Install Cavity Wall Insulation at St Neots Leisure Centre***
Project Management	*Environment Team*
Lead officer	*Pete Corley*
Department	*Leisure Services*
Description	
Benefits	• Financial savings: • Payback period: • Energy saving: • CO_2 Emissions reduction: • Operational life of the project (before renewal):
Funding	• Financial investment: • Operational costs:
Resources	
Ensuring Success	
Measuring Success	
Project Timescales	
Notes	

Reducing HDC's Environmental Footprint: Project Definition

Ref: 35

Project Reference	***Install Cavity Wall Insulation at St Ivo Leisure Centre (Indoor)***
Project Management	*Environment Team*
Lead officer	*Pete Corley*
Department	*Leisure Services*
Description	
Benefits	• Financial savings: • Payback period: • Energy saving: • CO_2 Emissions reduction: • Operational life of the project (before renewal):
Funding	• Financial investment: • Operational costs:
Resources	
Ensuring Success	
Measuring Success	
Project Timescales	
Notes	

Reducing HDC's Environmental Footprint: Project Definition

Ref: 36

Project Reference	***Combined Heat and Power (CHP) at Ramsey Leisure Centre***
Project Management	*Environment Team*
Lead officer	*Pete Corley*
Department	*Leisure Services*
Description	*Installation of a combined heat and power system to provide the leisure centre with a proportion of its energy requirements.*
Benefits	• Financial savings: • Payback period: • Energy saving: • CO_2 Emissions reduction: • Operational life of the project (before renewal):
Funding	• Financial investment: • Operational costs:
Resources	
Ensuring Success	
Measuring Success	
Project Timescales	
Notes	

Reducing HDC's Environmental Footprint: Project Definition

Ref: 37

Project Reference	***Combined Heat and Power (CHP) at St Ivo Leisure Centre (Indoor)***
Project Management	*Environment Team*
Lead officer	*Pete Corley*
Department	*Leisure Services*
Description	*Installation of a combined heat and power system to provide the leisure centre with a proportion of its energy requirements.*
Benefits	• Financial savings: • Payback period: • Energy saving: • CO_2 Emissions reduction: • Operational life of the project (before renewal):
Funding	• Financial investment: • Operational costs:
Resources	
Ensuring Success	
Measuring Success	
Project Timescales	
Notes	

Reducing HDC's Environmental Footprint: Project Definition

Ref: 38

Project Reference	***Combined Heat and Power (CHP) at Sawtry Leisure Centre***
Project Management	*Environment Team*
Lead officer	*Pete Corley*
Department	*Leisure Services*
Description	*Installation of a combined heat and power system to provide the leisure centre with a proportion of its energy requirements.*
Benefits	• Financial savings: • Payback period: • Energy saving: • CO_2 Emissions reduction: • Operational life of the project (before renewal):
Funding	• Financial investment: • Operational costs:
Resources	
Ensuring Success	
Measuring Success	.
Project Timescales	
Notes	

Reducing HDC's Environmental Footprint: Project Definition

Ref: 39

Project Reference	***Combined Heat and Power (CHP) at St Neots Leisure Centre***
Project Management	*Environment Team*
Lead officer	*Pete Corley*
Department	*Leisure Services*
Description	*Installation of a combined heat and power system to provide the leisure centre with a proportion of its energy requirements.*
Benefits	• Financial savings: • Payback period: • Energy saving: • CO_2 Emissions reduction: • Operational life of the project (before renewal):
Funding	• Financial investment: • Operational costs:
Resources	
Ensuring Success	
Measuring Success	
Project Timescales	
Notes	

working with

Appendix C:

Green Force Communications Plan

w/c	March					April				May				June				
	2nd	9th	16th	23rd	30th	6th	13th	20th	27th	4th	11th	18th	25th	1st	8th	15th	22nd	29th
Member Green Force Survey live on intranet																		
Intranet page created and completed																		
April- Team News Article																		
Promote Staff Green Day-Posters/Intranet/ E-mails/Stands in Pathfinder House																		
Green Day																		
Green Force project promoted on HDC's website																		
May- Team News Article																		
Hold introductory Green Force Meeting (22nd May 2009)																		
First Official Green Force Meeting (5th June 2009)																		
June- Team News Article																		

Team News Articles
April- Promote Staff Green Day
May- Highlight success of launch and promote first Green Force meeting
June- Report on first Green Force meeting held

Future Green Force meeting dates (TBC)
9th October 2009
5th February 2010