

CABINET ITEM COVERING SHEET PROFORMA

AGENDA ITEM

REPORT TO CABINET

13 MARCH 2008

**REPORT OF CORPORATE
MANAGEMENT TEAM**

CABINET DECISION

Environment – Lead Cabinet Member – Councillor Mrs Jennie Beaumont

CARBON MANAGEMENT – STRATEGY & IMPLEMENTATION PLAN

1. Summary

At the Cabinet meeting on 22 November 2007 Members noted that the Council had been accepted onto the Local Authority Carbon Management Programme and that there was a “case for action” with the associated reductions in carbon emissions and financial benefits. It was further resolved that officers progress to the next stage of the programme and develop a strategy and implementation plan for consideration by Members. This report sets out the key parts of this plan and how we can reduce our carbon emissions by 25% over five years. It shows that through the implementation of a series of projects significant savings can be made in both emissions and in financial terms. A key part of the programme is the ability to demonstrate that all of these measures will have a payback period of five years or less, making this an “invest to save” plan.

The programme includes our administration buildings, leisure facilities, libraries and other public buildings, schools, fleet and business travel as well as street lighting. The initial stages of the programme are based around short term gains or “quick wins” in order to make an early impact and to ensure the revolving loan budget is replenished quickly.

Underpinning the programme will be an awareness campaign developed in-house and which will involve all service areas and staff. Already over 40 carbon savers have been recruited across all service areas whose role is to identify possibilities for energy savings and to help disseminate the energy saving messages.

Being involved with this programme provides the Council with the opportunity to bid for funding from the Salix finance company, a not-for-profit organisation established by the carbon trust with £20m of government funds to invest in energy efficiency measures.

2. Recommendations

It is recommended that:

1. Members note the Carbon Management Strategy and Implementation Plan as being the delivery mechanism to achieve significant carbon savings for the Council.
2. Annual reports of progress against targets and the value at stake are produced and published.

3. Reasons for the Recommendations/Decision(s)

1. Climate change is real. The daily effects of climate change, the availability and cost of fossil fuels, environmental regulation and new technology will change the shape of energy use and supply and make the emission of greenhouse gases one of society's key concerns.
2. As an organisation Stockton Borough Council is responsible through its activities and buildings for 2% of the total CO2 emissions in the Borough.
3. Stockton Council has a Community leadership role to use resources wisely, setting an example to other businesses, stakeholders, partner organisations and the wider community.
4. There is a need to meet climate change-driven regulation governing the public sector such as the Energy Performance of Buildings Directive, the EU Emissions Trading Scheme and the proposed Carbon Reduction Commitment scheme. Participation in the carbon management programme will put the Council in a position to meet these challenges and to stay ahead of the wave of regulatory pressures.
5. To deliver the significant reduction in carbon usage and consequent financial savings requires a robust strategy and implementation plan. This has been developed with the assistance of the carbon trust and through networking with other local authorities in the programme.
6. Adequate resources will be required to implement the measures necessary to achieve the carbon savings, at present the Council attributes £100,000 a year for energy efficiency initiatives. A substantial increase may be needed in order to fully realise the range of opportunities to save energy identified to date. The Government are supporting an energy efficiency investment fund, which will operate as a revolving loan adopting the criteria set by the Salix finance organisation. This is in practice an *invest to save* model with a proven mechanism for calculation of pay-back periods.

4. Members' Interests

Members (including co-opted Members with voting rights) should consider whether they have a personal interest in the item as defined in the Council's code of conduct (**paragraph 8**) and, if so, declare the existence and nature of that interest in accordance with paragraph 9 of the code.

Where a Member regards him/herself as having a personal interest in the item, he/she must then consider whether that interest is one which a member of the public, with knowledge of the relevant facts, would reasonably regard as so significant that it is likely to prejudice the Member's judgement of the public interest (**paragraphs 10 and 11 of the code of conduct**).

A Member with a prejudicial interest in any matter must withdraw from the room where the meeting considering the business is being held -

- in a case where the Member is attending a meeting (including a meeting of a select committee) but only for the purpose of making representations, answering questions or giving evidence, provided the public are also allowed to attend the meeting for the same purpose whether under statutory right or otherwise, immediately after making representations, answering questions or giving evidence as the case may be;

- in any other case, whenever it becomes apparent that the business is being considered at the meeting;

and must not exercise executive functions in relation to the matter and not seek improperly to influence the decision about the matter (**paragraph 12 of the Code**).

Further to the above, it should be noted that any Member attending a meeting of Cabinet, Select Committee etc; whether or not they are a Member of the Cabinet or Select Committee concerned, must declare any personal interest which they have in the business being considered at the meeting (unless the interest arises solely from the Member's membership of, or position of control or management on any other body to which the Member was appointed or nominated by the Council, or on any other body exercising functions of a public nature, when the interest only needs to be declared if and when the Member speaks on the matter), and if their interest is prejudicial, they must also leave the meeting room, subject to and in accordance with the provisions referred to above.

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RECOMMENDATIONS

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DETAIL

Background:

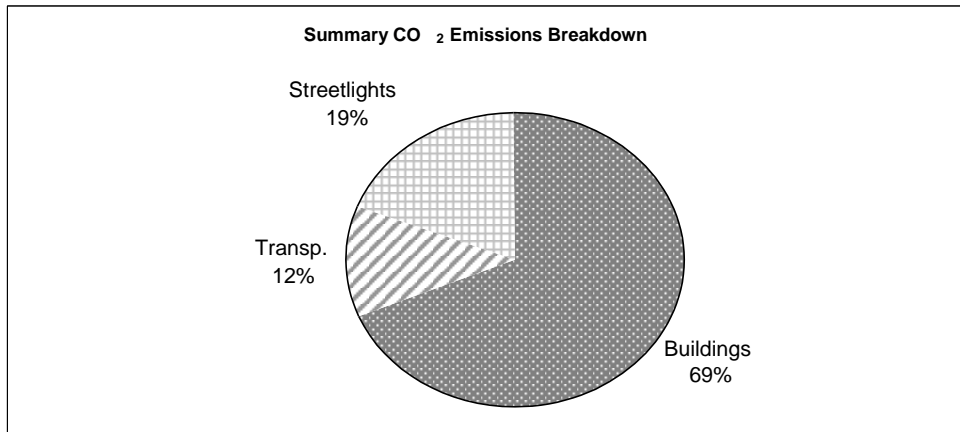
- 1 At the Cabinet meeting on 22 November 2007 it was agreed that there was a “case for action” based on two scenarios i.e. the business as usual versus the implementation of a series of measures to reduce our emissions by 25% over five years. The difference between the two scenarios showed that there was potential to make £4.2m savings aggregated over five years and to reduce emissions by around 23,000 tonnes.
- 2 Officers were tasked to produce a strategy and implementation plan that would enable these significant savings in financial terms as well as carbon emissions to be delivered. This report presents that draft strategy and implementation plan which includes projects identified as being deliverable over the lifetime of the plan and meeting the target savings.
- 3 Stockton was accepted onto the carbon management programme in May 2007, established a cross-service project team who brought together sufficient information to produce a baseline position in terms of our carbon emissions and energy costs and through an opportunities workshop and more detailed discussions they were able to develop projects that could achieve the 25% emissions reduction target.
- 4 These projects have been through a process of prioritisation and risk assessment before being incorporated within the Strategy and Implementation Plan. Where possible, each project has a measurable output in terms of carbon and financial saving and a cost per tonne of carbon saved in order to make a value judgement against each project. The resources needed to deliver these projects have also been identified as well as the status of those resources i.e. in place or to be confirmed.
- 5 A target of 25% carbon saving by 2013 has been adopted, based upon both the experience of other local authorities in previous phases of the programme and from the information supplied by members of the project team relating to actions that are planned or expected to happen over the next five years.
- 6 The scope of the project will include schools, leisure facilities, council administrative buildings, libraries, the fleet, business mileage, and street lighting. As the carbon impact of our waste management strategy is highly complex it is subject to a separate review process. However, it is expected that carbon ‘expenditure’ will be a major consideration in determining waste management strategies and will add to our overall target.

Strategy and Implementation Plan (SIP) Structure:

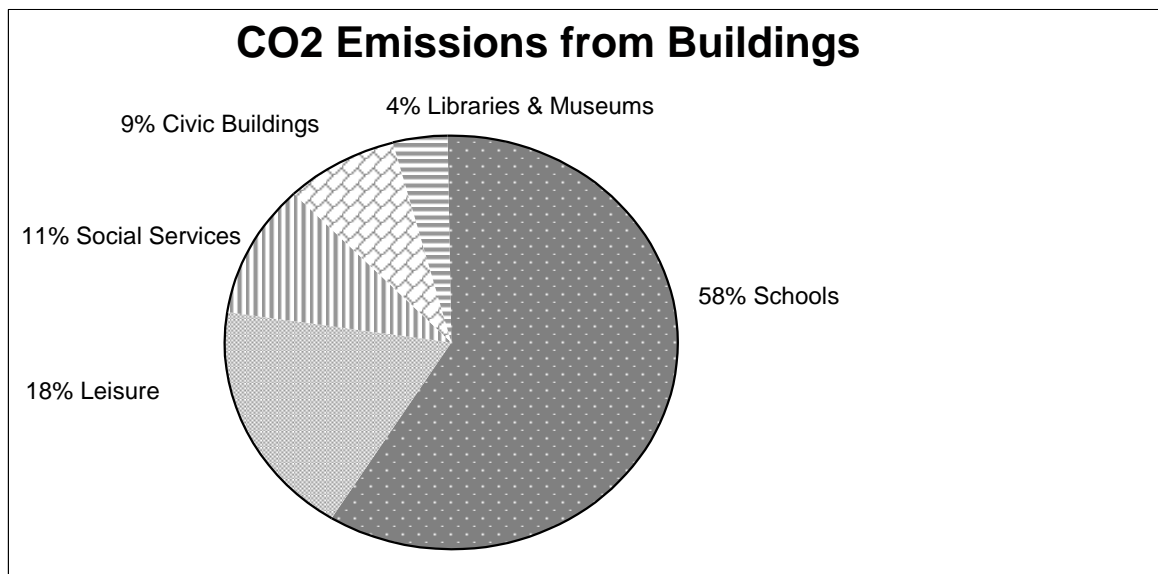
- 7 The SIP is structured around a template provided by the carbon trust and is the formal deliverable to the trust as part of the local authority carbon management programme and is assessed by the trust to determine how successfully the authority has engaged with the programme. A Copy of the SIP is available in the members’ library.
- 8 Of particular importance within the SIP are:
 - The quantification of emissions reduction opportunities, i.e. measuring the carbon savings from each project;
 - The scheduling of chosen projects and actions into a realistic and achievable plan;
 - Balancing projects with measurable emissions reductions with complementary actions that embed carbon management effectively into the organisation;
 - Co-ordination of the plan with existing plans, policies & strategies;
 - Defining the governance and ownership of the plan.

Baseline Position:

9 The SIP sets out the business case for reducing the Council’s carbon emissions by 25% between 2008 and 2013 from the baseline position in 2005/06. The baseline position is set out in summary form below for our public buildings, schools, leisure facilities, street lighting, as well as fleet fuel use and business miles travelled by staff.



This can be broken down further to show the emissions from the buildings, where it becomes clear that schools are the biggest users of energy followed by our leisure facilities.



Key facts from the baseline year of 2005/06 are:

- 29,700,856 kWh/yr electricity used;
- 48,973,915 kWh/yr gas used;
- 950,000 litres of fuel for the fleet;
- 2,668,000 business miles travelled;
- Total costs - £4,139,000
- 27,758 tonnes CO₂ emitted.

10 Using this baseline data a forecast has been prepared using both known and predicted factors which may influence pricing such as inflation and fuel price rises over the next five years and based upon data from the Dti and using a formula produced by the carbon trust. Two scenarios are then produced. The first the “business as usual” scenario (BAU) where no energy efficiency measures are installed and prices continue to rise. The second scenario where the energy saving measures are implemented to achieve the 25%

reduction. The difference between the two is known as the “value at stake” and this equates to £4.2m over five years and 23,164 tonnes CO2.

Projects to Secure Significant Reductions:

- 11 Twenty three projects have been identified and assessed in terms of their contribution to the overall reduction target, indicative costs and deliverability. These range from some of the more traditional approaches such as insulation measures, lighting controls, improving heating controls and zoning to the more unusual such as street light dimming, voltage reduction and liquid swimming pool covers. These projects are detailed within the SIP. Underpinning the programme will be a comprehensive awareness campaign to engage staff in all service areas, within schools and Tees Active.
- 12 Short term projects will include the installation of voltage regulators, installation of insulation measures, pool covers (conventional or liquid), IT switch off after hours and timer switches for appropriate freestanding electrical equipment e.g. photocopiers.
- 13 Longer term measures, and potentially having significant impacts, will include window and boiler replacements, street lighting dimming, the accommodation review, energy efficiency improvements through the Building Schools for the Future programme and the primary schools improvements.
- 14 The awareness campaign will run throughout this programme and is being led by our communications and marketing team. This will produce improvements that are not so easy to measure but will be complimentary to the whole programme.

Table of Projects:

Title	Explanation	Indicative Cost (£)	Budget in Place	Cost Saving (£/yr)	CO2 Saving (Tonnes per year)	Short/ Medium/ Long Term	Pay Back Period (Years)	Ownership
Pool Covers	<i>All leisure centre and school pools to have effective and appropriate pool covers, including liquid pool covers if feasible and cost effective.</i>	15,000	Salix	6,195	69	Short	2.4	Denis Smith
Window Replacement	<i>Replace all single glazed and old double glazed windows with their energy efficient equivalent as part of maintenance programme.</i>	To be determined	Capital programme	21,000	2,153	Medium to Long	Variable	Ian Hodgson Ken Richardson
Voltage Regulators	<i>Voltage regulators to be fitted to all appropriate plant systems, subject to satisfactory initial pilot scheme at Queensway house</i>	Maximum 280,000	Salix	Variable	547	Medium to Long	2 to 5	Stuart Morrow
Insulation Surveys and Action	<i>A survey of the insulation of all council properties, followed by appropriate action to increase insulation to recommended</i>	150,000	Salix	34,000	1,538	Short	4.3	Mike Chicken

	<i>levels.</i>							
Energy Policy	<i>Develop a policy on energy consumption and supply, with targets for renewable energy generation and also to address the issue of air conditioning installations.</i>	No cost	No cost	60,000	615	Medium	0	Mike Chicken, Keith Slater,
Boiler Replacement	<i>Replace all boilers over 30 years of age with their new more efficient equivalent</i>	To be determined	Capital programme	180,000	1,845	Long	Variable	Stuart Morrow Ken Richardson, Gordon Mallory
Intelligent Energy Efficient Lighting	<i>All buildings not fitted with efficient lighting technologies are to be identified and fitted with intelligent energy efficient lighting where feasible and cost effective.</i>	400,000	Salix	90,000	923	Medium	4.5	Ian Hodgson Stuart Morrow Ken Richardson
Energy Efficient New Builds	<i>All new council buildings (including BSF schools) to aim for a Carbon Neutral design.</i>		BSF / Capital programme			Long	Variable	Gordon Mallory Ken Richardson
Refurbishment of the Forum	<i>Utilising the opportunity to achieve significant energy efficiency savings</i>	Estimated total cost around £15m	Salix in part			Long	Variable	Ian Hodgson
Extension to Splash	<i>Utilising the opportunity to achieve significant energy efficiency savings</i>	Estimated total cost around £3m	Capital programme			Medium to Long	Variable	Gordon Mallory
IT Switch off (Admin Buildings)	<i>7 day timers on electrical equipment, activated energy settings on PCs, and remote shut down of PCs</i>	60,000	Salix	13,750	118	Short	4.4	Kevin Carey
IT Switch off (Schools)	<i>7 day timers on electrical equipment, activated energy settings on PCs, and remote shut down of PCs</i>	98,000	Salix	20,000	172	Short	4.4	Andrea Warburton
Schools Carbon Reduction Officer	<i>Employ a member of staff to work specifically with schools and school children to educate and promote Carbon/energy saving.</i>	30,000	Salix	18,000	1,230	Short / Medium	1.66	Mike Chicken
Driver Training	<i>Training in Economical and Defensive driving</i>	20,000	Salix	91,390	235	Short / Medium	0.2	Neil Ellison
Bio Diesel to 100% of Fleet Vehicles	<i>Roll out the use of biodiesel to 100% of fleet vehicles. Purchase 2 new fuel</i>	33,000	Salix	201,847	852	Short	0.2	Maurice Stephenson

	<i>bunkers and monitoring system.</i>							
Increase Bio content in Diesel to 20%	<i>Purchase 20% Bio diesel instead of 5% for all fleet vehicles.</i>	No cost	No cost	No cost saving (20% bio is the same price as 5%)	220	Short	0	Maurice Stephenson
Awareness Campaign	<i>Posters, stickers etc. News articles, Intranet bulletins, energy saving incentives and targets, energy use reporting mechanism.</i>	10,000	Salix	60,000	615	Short / Medium	0.2	Dave Lupton, Mark Malik
Review of Street Lighting	<i>Review the period of lighting and the effectiveness of the dimming trial and implement actions based on that review.</i>	100,000	Salix in part			Short / Medium	Variable	Brian Buckley
Procurement Policy Review	<i>Update the Procurement policy to include whole life costing for significant goods or services.</i>	No cost	No cost			Short		Mike Chicken, Angela Lench
Office Accommodation Review	<i>Rationalise the occupancy of buildings, introduce flexible working policies and utilise available ICT to support these changes as part of the "workwise" project.</i>	To be determined	To be determined			Long		Garry Cummings
Travel Plan Implementation	<i>Review of current policies in relation to travel, reduce business mileage claimed and provide realistic and practical alternatives.</i>	15,000	Local Transport Plan	100,000	463	Medium to Long	Variable	Gillian Corking
Gradually Turn Down Heating to 19 degrees	<i>Gradually turn the heating down in all council admin buildings to 19 degrees C (comfortable working temperature).</i>	No cost	No cost	4000	74	Short		Mark Wardle Stuart Morrow
Energy Audits and Actions	<i>Energy Audits to be carried out on all council buildings, and actions arising from the audits to be implemented.</i>	No cost	Salix			Short		Keith Slater

Linkages with other plans, policies and strategies:

- 15 Carbon management has links to, and will contribute towards targets and objectives within:
- The Stockton on Tees Climate Change Action
 - The Tees Valley Climate Change Strategy
 - Sustainable Community Strategy 2008 - 2021
 - The Asset Management Plan
 - Building Schools for the Future programme
 - Corporate Procurement Strategy
 - The Corporate Travel Plan

Governance and Management of the Plan:

- 16 The corporate project sponsor is the Director for Development and Neighbourhood Services and the political sponsor being the cabinet member for the environment. The project team is led by officers from within the Technical Services division of Development and Neighbourhood Services and will manage the implementation of the five year plan.
- 17 Annual progress reports against targets and identifying savings will be published.
- 18 The action plan within the SIP will be subject to annual review to ensure that the projects within the plan are still relevant and will contribute to the objectives and targets within the carbon management programme.

Resources:

- 19 There is an existing budget for energy efficiency measures of £100,000 which operates on a revolving loan basis and has largely been utilised for school energy efficiency measures. This level of resource may not be sufficient to deliver the measures necessary to achieve the significant reduction in energy use identified within the carbon management programme opportunities. Additional resources are being sought from the capital programme to bring the amount available up to £250,000 and a bid for match funding from the Salix finance company has been submitted, which if successful will see the total available for the energy efficiency fund rise to £500,000.

Salix Ring Fenced Fund Scheme

- 20 Salix is an independent, publicly funded company that provides interest-free match funding grant to the public sector to invest in energy efficiency measures and technologies that will reduce carbon emissions.
- 21 Local Authorities participating in the carbon management programme can apply for a grant of up to £250,000, in exceptional circumstances this can be increased to £500,000 provided there is a well thought out business case that demonstrates effective use of the fund over the longer term.
- 22 Projects funded through this route must meet certain criteria:
- Maximum 5 year payback period and £100/ tonne CO₂ lifetime basis, for energy efficiency projects;
 - Or maximum 7.5 year payback period for projects with lifetime £/ tonne CO₂ equal or less than £50 for approved energy efficiency and renewable projects.
- 23 The fund must be dedicated to implementing energy efficiency and renewable energy projects through interest free internal "loans". The loans are then repaid to the fund over a period agreed with the carbon reduction programme using a minimum of 75% of the annual savings – the balance being retained by the project host e.g. a School. Once the project

loan has been repaid to the fund the project recipient will continue to benefit from the ongoing energy savings. As repayments are recycled back into the fund they become available for re-investment, hence creating a self-sustaining fund.

24 This fund will be managed by a fund manager within technical services and in accordance with the rules established by the Salix organisation and complying with internal accounting procedures and policies. Annual reports will be produced as part of the monitoring arrangements and linked to the progress reports for the carbon management programme.

25 The table below provides a simplified indication of how the £500k could be utilised:

It assumes that the full £500,000 is invested in projects with a four year payback period and then the income from that loan of £125,000 is invested similarly as is the income from that loan the following year. The total available for investment rises from £125,000 in year two to £193,969 in year seven. (Note PBP = Pay Back Period)

£500,000 Energy Efficiency Fund

	Year one	Year two	Year three	Year four	Year five	Year six	Year seven
		Income	Income	Income	Income	Income	Income
£500,000	£125,000	£125,000	£125,000	£125,000	£125,000		
	£125,000	£31,250	£31,250	£31,250	£31,250	£31,250	
Invest	Invest	£156,250	£39,062	£39,062	£39,062	£39,062	£39,062
4yrs PBP	4yrs PBP	Invest	£195,312	£48,828	£48,828	£48,828	£48,828
		4yrs PBP	Invest	£244,140	£61,035	£61,035	£61,035
			4yrs PBP	Invest	£180,175	£45,044	£45,044
				4yrs PBP	Invest	£193,969	£193,969
					4yrs PBP	Invest	£193,969
						4yrs PBP	Invest
							4yrs PBP

FINANCIAL IMPLICATIONS

26 An existing budget of £100,000 exists for energy efficiency measures and sits within Development and Neighbourhood Services, Technical Services Division. A bid for an additional capital allocation of £150,000 has been submitted to bring the total up to £250,000. This will then be utilised to act as match funding in a bid for Salix finance as part of a funding package to implement the carbon management strategy, therefore creating a potential fund of £500,000.

27 The resulting energy efficiency investment fund will then act as an “invest to save” revolving interest free loan fund for eligible projects.

LEGAL IMPLICATIONS

28 Participation in the carbon management programme will enable the council to meet its obligations in a number of regulatory areas such as the energy labelling of buildings, and the proposed carbon reduction commitment.

RISK ASSESSMENT

29 **Carbon Management – Strategy and Implementation Plan** is categorised as low to medium risk. Existing management systems and daily routine activities are sufficient to control and reduce risk.

COMMUNITY STRATEGY IMPLICATIONS

Economic Regeneration and Transport

- 30 Through networking and sharing best practice this programme can help businesses to a reduction in energy costs thereby improving their viability and sustainability.

Safer Communities

- 31 This programme can help to reduce the fear of crime through efficient use of energy in street lighting.

Children and Young People

- 32 School travel planning can help to reduce health inequalities for children within the Borough.

Healthier Communities and Adults

- 33 The programme may contribute to a reduction in road congestion. The programme may help to bring about a reduction in road traffic related air pollution.

Liveability

- 34 This will improve the efficiency of energy use within the Borough.

EQUALITIES IMPACT ASSESSMENT

- 35 The equalities impact assessment will be carried out during the delivery of the carbon management strategy and implementation plan.

CONSULTATION INCLUDING WARD/COUNCILLORS

- 36 Consultation has taken place with Tristar Homes and Tees Active in respect of the implications on their respective business. Both organisations have welcomed this initiative.
- 37 A forum for members was held on 1 February 2008 in the Arc including a presentation on the carbon management programme, and a discussion on the key issues.
- 38 Consultation with trade unions will take place on the issues that staff may have concerns with such as travel plan policy implementation and working environments.

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Background Papers

None.

Ward(s) and Ward Councillors:

Not ward specific.

Property

Endorses the principles covered in the Asset Management Plan especially the asset management section 3.14.

The principle of the revolving interest free internal loan utilising capital and supported by match funding from the Salix finance company maximises the use of limited resources and creates a sustainable fund for long term energy efficiency investments.