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To: Members of the Corporate Overview Committee (Councillors:
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Malcolm Florey, Chris Gibbings, Graham Godbeer, Pat Graham,
Ben Ingham, Stephanie Jones, David Key, Bob Peachey,
Brenda Taylor, Tim Wood, Steve Wragg).

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Meeting of the Corporate Overview Committee

Thursday 26 February 2009 – 6.30pm

Council Chamber, Knowle, Sidmouth

Members of the public are welcome to attend this meeting.

- A period of 15 minutes has been provided to allow members of the public to raise questions.
- In addition, after a report has been introduced by the relevant Portfolio Holder and/or officer, the Chairman of the Committee will ask if any member of the public would like to speak in respect of the matter and/or ask questions.
- All individual contributions will be limited to a period of 3 minutes – where there is an interest group of objectors or supporters, a spokesperson should be appointed to speak on behalf of group.
- The public is advised that the Chairman has the right and discretion to control questions to avoid disruption, repetition and to make best use of the meeting time.

A hearing loop system will be in operation in the Council Chamber.

Visitors please note that the doors to the civic suite (meeting rooms) will be opened ¼ hour before the start time of the meeting. Councillors are reminded to bring their key fobs if they wish to access the area prior to that time.

AGENDA

Page/s

1. **Public question time – standard agenda item (15 minutes)**
Members of the public are invited to put questions to the Committee through the Chairman.
 - Each individual questioner exercising the right to speak during this public question time is restricted to speaking for a total of 3 minutes.
 - Councillors also have the opportunity to ask questions of the Leader and/or Portfolio Holders during this time slot whilst giving priority at this part of the agenda to members of the public.
 - The Chairman has the right and discretion to control question time to avoid disruption, repetition, and to make best use of the meeting time.
2. To confirm the minutes of the meeting of the Corporate Overview Committee held on 7 January 2009 (previously circulated with the Executive Board agenda of 4 February 2009).

3. To receive any apologies for absence.
4. To consider any items which, in the opinion of the Chairman, should be dealt with as matters of urgency because of special circumstances.

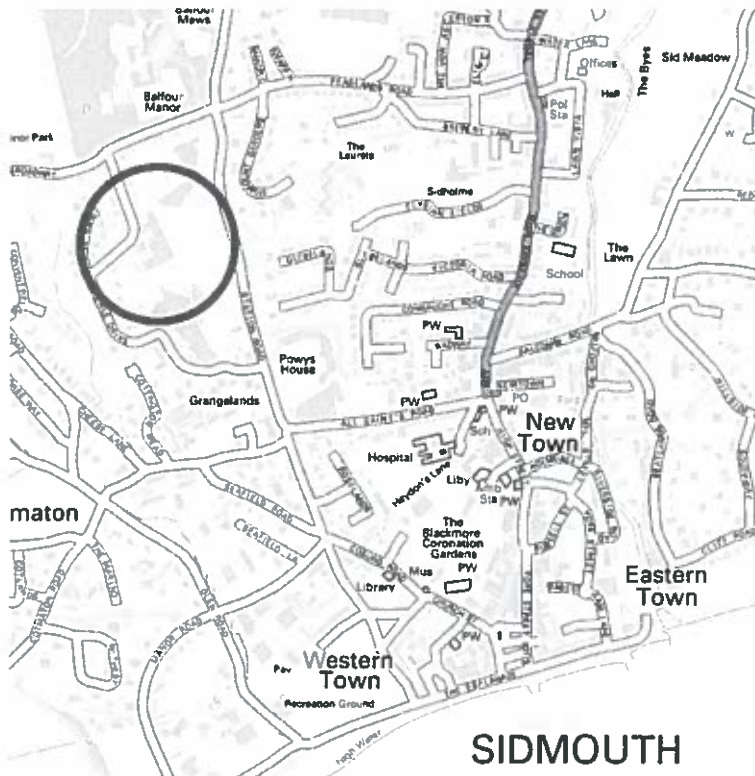
(Note: such circumstances need to be clearly identified in the minutes; Councillors please notify the Chief Executive in advance of the meeting if you wish to raise a matter under this item. The Chief Executive will then consult with the Chairman).
5. To agree any items to be dealt with after the public (including the press) have been excluded. There are no items that the officers recommend should be dealt with in this way.

6.	Seaton Business Development Unit feasibility study To discuss in more detail the report presented at the January meeting.	Nigel Harrison Economic Development Officer	4 - 7
7.	Draft Carbon Management Programme To progress the draft Carbon Management Plan.	Diane Berry Carbon Management Officer	8 - 30
8.	Definition of Zero Carbon Homes and Non Domestic Building To consider the definition of Zero Carbon homes and Non Domestic buildings	Karime Hassan Corporate Director	31 - 36
9.	Sustainable Communities Act 2007 Presentation for Members to consider on the discussion on this item at the Sustainable Construction TaFF.	Councillor Graham Godbeer	Verbal report

Members remember!

- You must declare any personal or prejudicial interests in an item whenever it becomes apparent that you have an interest in the business being considered.
- Make sure you say the reason for your interest as this has to be included in the minutes.
- If your interest is prejudicial you must leave the room unless you have obtained a dispensation from the Council's Standards Committee or where Para 12(2) of the Code can be applied. Para 12(2) allows a Member with a prejudicial interest to stay for the purpose of making representations, answering questions or giving evidence relating to the business but only at meetings where the public are also allowed to make representations. If you do remain, you must not exercise decision-making functions or seek to improperly influence the decision; you must leave the meeting room once you have made your representation.
- You also need to declare when you are subject to the party whip before the matter is discussed.

Getting to the Meeting – for the benefit of visitors



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From Exmouth, Budleigh, Otterton and Newton Poppleford – 157

The following buses all terminate at the Triangle in Sidmouth, From the Triangle, walk up Station Road until you reach the Council Offices (approximately ½ mile).
From Exeter – 52A, 52B
From Honiton – 340 (Railway Station), 387 (Town Centre)
From Seaton – 52A, 899
From Ottery St Mary – 382, 387

Please check your local timetable for times.

The Committee Suite has a separate entrance to the main building, located at the end of the visitor and Councillor car park. The rooms are at ground level and easily accessible; there is also a toilet for disabled users.

For a copy of this agenda in large print, please contact the Democratic Services Team on 01395 517546

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Agenda Item 6

Corporate Overview

26 February 2009

08/8019



Seaton Business Development Unit Feasibility Study

Summary

The report provides the background to the preparation and conclusions of a feasibility study into a proposal to create managed workspace to aid the extension of employment and business opportunity in Seaton. The study was commissioned by the Council acting on behalf of the Seaton Development Trust, Seaton Town Council and other stakeholders. It envisages the creation of nine offices, seven workshops and other facilities from a building constructed within the Harepath Road Mixed Use Area (East Devon Local Plan Policy LSE2). The conclusions of the study are seen to place too great a dependence on the Council's financial and technical resources.

Recommendation

1. That the Council expresses its willingness continue discussions with the Seaton Development Trust, Seaton Town Council and other stakeholders following the completion of the Seaton Business Development Unit Feasibility Study.
2. That the delivery of the Seaton Business Development Unit is unlikely to be achieved solely through the financial and technical resources of the Council. It is therefore likely to be dependant upon the success of the project's stakeholders in winning the support of additional partners.

a) Reasons for Recommendation

The Seaton Business Development Unit Feasibility Study can usefully inform the Council's plans to promote the extension of employment opportunity in Seaton.

b) Alternative Options

Leave the future provision of workspace to the market.

c) Risk Considerations

The study points to the need for greater involvement in the delivery workspace for new and emerging businesses in relation to which the Council immediate has no plans for capital investment.

d) Policy and Budgetary Considerations

The recommendations are consistent with the Council's second corporate objective – a thriving economy.

e) Date for Review of Decision

June 2009

1 Main Body of the Report

1.0 Introduction

1.1 In July 2008, the Seaton Development Trust successfully secured the co-operation and support of a range of funding partners to commission a study into the feasibility of creating a Seaton Business Development Unit as part of wider proposals for the regeneration of the town. The project stakeholders agreed that East Devon District Council would be responsible for the management and administration of the contract for this study.

1.2 The Seaton Development Trust's vision is of an innovative and sustainable facility for business that will lead to the development of new ideas, products and services aimed at adding social value and new employment opportunity for the people of Seaton and its rural hinterland.

2.0 The Feasibility Study

2.1 The feasibility study was designed to examine the case for investment in the creation of the Seaton Business Development Unit as a self sustaining alternative to home working, commuting and worklessness, within its catchment area, through the provision of managed workspace and related business facilities. The consultants appointed (Roger Tym and Partners) were asked to

- Undertake a detailed assessment of the demand for managed workspace in Seaton relying not only projections from historic demand records but also on research designed to capture and measure the extent of latent demand taking full account of the difficulty of contacting isolated, unregistered home workers and commuters;
- Undertake a review of broadly similar workspace proposals from the South West and elsewhere, to identify best practice and to inform the assessment of viability;
- Undertake a review of the planning policy framework and other factors to inform the identification of a location within Seaton suitable for the creation of the Seaton Business Development Unit;
- Calculate the level of built provision of both workspace and ancillary facilities necessary to ensure an appropriate level of tenanted and casual hire facilities to ensure, at least, a revenue neutral outcome;
- Advise stakeholders on the outcomes of the study and make recommendations for appropriate further action.

2.2 Roger Tym and Partners completed their work on the feasibility and submitted their final report to the project stakeholders in November 2008. The report's executive summary is attached and a copy of the full report will be available from the Members area of the Council's website. The study identifies a significant discrepancy between the perceptions of property market professionals (who suggest that there is little evidence of a requirement for additional office space or industrial units in Seaton) and the latent demand for such space, revealed by the Workspace Demand Survey undertaken during the course of the feasibility study.

2.3 The consultants identified a total of 597 businesses trading from within Seaton and nearby villages. 189 of these took part in the survey. This revealed that as many as 35 of the businesses contacted could be interested in either workshop, office or other facilities offered by the Seaton Business Development Unit.



- 2.4 In accordance with the study brief, the consultants then undertook a review a similar business centres / workspace units to provide 'lessons learnt' information and to inform the assessment of options for the delivery of the Seaton Business Development Unit. They then reviewed the planning policy and other local development issues to inform the selection of an appropriate location for the unit. The study concludes that the most viable and appropriate option for the creation of the Seaton Business Development Unit is the land identified in the East Devon Local Plan (LSE2) at Harepath Road.
- 2.5 Their report examines potential development options in some detail and concludes that by offering a combination of office space, workshops and casual hire facilities the unit is most likely to reflect the needs of local businesses. The consultants preferred option is for a single storey building provides of nine offices units, seven workshops, a meeting/training room, conference room and kitchen totaling 679 square metres within a site with a total area of 1,474 square metres. The emphasis is on the provision of flexible accommodation that can be readily adapted to reflect changing patterns of demand. The cost of delivering the Seaton Business Development Unit in this form is estimated to be £1.9 million focused principally on construction costs to an average (Spons Architects and Builders Price Book 2009) standard. However, this does not include the cost of the land and services on which the project is delivered. With these additional capital costs discounted, the consultants suggest that the development could be cost neutral and even produce a small revenue surplus as the project becomes established.
- 2.6 The concept of grouped workspace (offices and workshops on the same campus), services including a one stop shop for business advice and support to external businesses is at the heart of the vision for the Seaton Business development Unit. The consultants appear confident that the demand exists from within Seaton and its immediate catchment area to sustain such a project which, if exempt from the burden of the cost of funding the capital required to deliver it, is potentially capable of producing sufficient revenue income to fund its operating and to generate the trading surplus necessary to allow for maintenance and future renewal.

3.0 Future Action

- 3.1 The creation of the Seaton Business Development Unit in the form suggested by the consultants appointed to conduct the feasibility study, can be seen to be dependent upon the delivery of the East Devon Local Plan Policy LSE2 (Harpeth Road Mixed Use Area). This land was the subject of a report to the Executive Board in April 2008 which identified two significant constraints. Firstly, the report indicated that it would be necessary to extend the coverage of LSE2 to ensure fully viable delivery. Secondly, the report suggested that the Council's own capital and technical resources were unlikely to be sufficient to ensure successful delivery without the aid of a commercial partner.
- 3.2 These constraints still impact upon the Council's ability respond positively to the suggestions implicit in the Seaton Business Development Unit Feasibility Study. When the report suggests that the project's delivery programme would be "managed by East Devon District Council officers" whose first task would be to establish a suitable management body and within that framework, "bid for capital funding", it can be seen to be some distance removed from current reality.

Legal Implications

There are no legal issues requiring comment at this stage of the process

Financial Implications

The implications are contained within the report

Consultation on Reports to the Executive



Background Papers

- Seaton Business Development Unit Project Brief, July 2008
- Seaton Business Development Unit Feasibility Study, Final Report, Roger Tym and Partners, November 2008
- Minutes of the Executive Board, 30th April 2008

Nigel Harrison 2616
Economic Development Manager

Corporate Overview
7 January 2009



Agenda Item 7

Overview Committee

26 February 2009

Report Reference



Draft Carbon Management Plan 2009-2014

Summary

The draft Carbon Management Plan (CMP) 2009-2014 quantifies the carbon footprint of EDDC's activities at two levels of scope: scope 1 covers areas of activity in which carbon reduction would result in relative financial savings to EDDC and scope 2 covers areas of activity where carbon reduction measures would result in relative financial savings to either Council house tenants, staff or Leisure East Devon. The CMP states EDDC's target for reduction in carbon dioxide emissions by 2014 and identifies potential projects which could contribute towards that target. Some of the early projects are experimental in nature and it is envisaged that the CMP will be revised at its annual review in the light of experience and outcomes. The CMP is a working document that will evolve over its lifetime. It is anticipated that the final version of the Carbon Management Plan will go forward to Executive Board on 1 April 2009.

Recommendation

To progress the draft Carbon Management Plan

a) Reasons for Recommendation

Participation in Carbon Trust's Carbon Management Programme was approved by Council and the outcome of this is the Carbon Management Plan.

b) Alternative Options

N/A

c) Risk Considerations

N/A

d) Policy and Budgetary Considerations

Participation in Carbon Trust's Carbon Management Programme is a specified action in the Climate Change Strategy.

e) Date for Review of Decision

N/A

Legal Implications

There are no legal issues requiring comment on this interim report which reflects current Council Policy

Financial Implications

Individual projects contained within the Carbon Management Plan will undergo normal authorisation procedures.

Diane Berry ext 2757

Carbon Management Programme Officer

Overview Committee
26 February 2008



East Devon District Council

Carbon Management Programme

Carbon Management Plan (CMP)

Date: 11 February 2009

Version number: 1.2

Owner: Diane Berry

Approval route: Carbon Trust Review Panel (23/02/09)
Carbon Management Programme Team (24/02/09)
Corporate Overview (26/02/09)
Carbon Management Programme Board (date tbc)
Senior Management Team (10/03/09)
Executive Committee (01/04/09)

Approval status: Draft

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Foreword from Councillor Graham Liverton and Mark Williams, Chief Executive EDDC



Cllr Graham Liverton
Environment Portfolio Holder
(Picture of Mark Williams required also)

East Devon District Council's vision is for an 'Outstanding and sustainable quality of life for everyone in East Devon'. This Carbon Management Plan is an important step in putting sustainability at the heart of the Council's activities and service delivery. In so doing the Plan reflects our Corporate values: the courage to lead, the wisdom to listen, a passion for people, places and performance and champions of improvement and challenge.

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 in line with its Kyoto commitments and the Local Authority Carbon Management programme is 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 by lowering their carbon emissions.

East Devon District Council was selected in 2008, amidst strong competition, to take part in this ambitious programme. East Devon District Council partnered with the Carbon Trust on this programme in order to realise vast carbon and costs savings. This Carbon Management Plan commits the council to a target of reducing CO₂ by 45% by 2014 and underpins potential financial savings to the council of around £***.

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



Richard Rugg
Head of Public Sector, Carbon Trust



CARBON
TRUST

Management Summary *(this summary will be updated as the remainder of the CMP is completed in detail and it is recognised that some of the information below does not yet appear elsewhere in this draft)*

East Devon District Council adopted its Climate Change Strategy in March 2008. One of the priority actions within the Strategy is to: 'Carry out a carbon management programme with the Carbon Trust to establish the carbon footprint for East Devon District Council and to establish a detailed action plan for energy savings'.

At the County level, the Carbon Management Plan is East Devon District Council's response to the Local Area Agreement target to reduce carbon dioxide emissions. At the National level, the same target is embedded within National Indicator 185 and within the Comprehensive Area Assessments.

The Carbon Management Plan focusses mainly on two different scope areas: Scope 1 covers those areas of activity where carbon saving would result in a relative financial saving to East Devon District Council. Data gathered so far suggests emissions from these sources are around 2,678 tonnes of carbon dioxide per annum. Scope 2 covers those areas of activity where carbon saving would result in a relative financial saving to another party – either Council house tenants, Leisure East Devon or staff who commute by car. Data gathered so far suggests emissions from these sources are around 22,724 tonnes of carbon dioxide per annum. East Devon District Council's target is for a reduction in emissions of 45% by 2014 from both scope 1 and scope 2 areas, representing a total of 11,431 tonnes of carbon dioxide per annum.

Due to the scope of this Carbon Management Plan being wide, including areas over which East Devon District Council has no financial control, there is a relatively low financial value at stake for East Devon District Council. However, there is a substantial value at stake for our Council house tenants and thus the Carbon Management Plan should reduce the number of tenants in, or close to, fuel poverty. Many of the measures would also increase comfort levels and therefore be of benefit to health.

The main target for investment will be Council owned housing stock. It is recognised that a substantial proportion of this housing will still be in use in 2050, so measures taken now to improve its efficiency will have long term benefits. The second target for East Devon District Council is to reduce emissions from travel, both business and commuting. This is seen as hard to achieve because it is more about behavioural change than technical fixes. It is recognised that reducing travel can bring added benefit besides a reduction in emissions, such as improving the health of staff, providing a more efficient service to customers and having more cross departmental links. The third area for reduction is buildings. This is currently a difficult area to take forward due the impending Local Government Reorganisation but there are many potential projects involving those buildings that are unlikely to be affected by any boundary changes such as Leisure East Devon facilities, public conveniences etc.

Introduction

The Carbon Management Plan represents East Devon District Council's vision for carbon management over the next 5 years, from 2009 until 2014.

East Devon District Council has set a target of a 45% reduction in carbon dioxide emissions by 2014 in comparison to the 2007/08 baseline.

This is an ambitious target as it is challenging both quantitatively and in terms of the scope of the Carbon Management Plan. East Devon District Council has included areas which are outside its direct managerial control, such as its housing stock, commuting mileage and some outsourced services as these are significant contributors to local carbon dioxide emissions.

East Devon District Council embarked on the Carbon Management Programme in April 2008 as one of the actions contained within its Climate Change Strategy. The programme can be seen as a 5 step process:

Step 1: Mobilising the organisation

This included appointment of a Carbon Management Programme Leader, identifying Councillor and Corporate Sponsors and officers who would support and deliver the programme. Additionally providers of outsourced services were informed of the existence of the Programme and their role within it.

Step 2: Set baseline, forecast and targets

Prior to the Carbon Management Programme there had been little gathering and analysis of energy consumption data. The need to be able to accurately assess East Devon District Council's carbon footprint meant that new processes needed to be implemented. The first measure of East Devon District Council's carbon footprint will be approximate due to both the method of data collection and the use of a mathematical model to estimate emissions from the housing stock. It is expected that data collection methods will improve over time which will result in more accurate data in the future.

Step 3: Identify and quantify options

The Carbon Management Plan lists ideas for projects that could contribute towards the target of a 45% reduction in carbon dioxide emissions by 2014. There is some attempt at quantifying costs and potential savings, but it is recognised that the financial projections will improve after the experience of the first year of implementation. Projects to reduce carbon emissions have been identified from a variety of sources – including service plans, staff awareness sessions, the Green Team, the Climate Change Strategy, other local authorities and the Carbon Trust.

Step 4: Finalise Carbon Management Plan

It is envisaged that the Carbon Management Plan will go for approval by Executive Board in April 2009.

Step 5: Implement Carbon Management Plan

The Carbon Management Plan is a 5 year programme so its implementation will be managed and monitored up until 2014 by the appropriate officers and Councillors. Some of the projects in the early years are experimental and the experience gained from them will influence choice of later projects.

1 Carbon Management Strategy

Carbon Management is a rapidly changing and developing area of work. Over the 5 years of the Carbon Management Plan, it is predicted that drivers stemming from EU directives and Government policy will get progressively more challenging. Indeed, immediately following the formation of the Department of Energy and Climate Change in October 2008 the Government increased its CO₂ reduction target from 60% to 80% by 2050, relative to the 1990 baseline. This is a major change and will only be achievable at the local authority level with substantial changes to the way that services are delivered.

It is known that the Carbon Reduction Commitment, a system of trading in carbon credits, will be in force by 2011. In its current position, East Devon District Council's expenditure on energy is too low to be part of the first wave of carbon trading local authorities. If local government reorganisation results in unitary status then the projects within the Carbon Management Plan could feature in the new authority's carbon trading strategy. Alternatively, it could be that by 2014 the threshold for joining the carbon trading scheme will have been lowered and East Devon District Council would then be obliged to take part.

2.1 Context and drivers for carbon management

The UK Government has placed an emphasis on local authorities setting a leading example on Climate Change. Action by local authorities will be critical to the achievement of the Government's climate change objectives. This has created a number of legislative drivers for local authorities:

- **Energy Performance of Buildings Directive and Display Energy Certificates:** From 1 October 2008 there is a legal requirement for all public sector buildings with a total useful floor area of over 1,000m², to show a Display Energy Certificate in a prominent place, clearly visible to the public.¹ This applies to eight Council owned buildings.
- **NI185 – percentage CO₂ reduction from LA operations:** the public sector is in a key position to lead on efforts to reduce CO₂ emissions by setting a behavioural and strategic example to the private sector and communities. Measurement against this indicator requires each local authority to calculate its CO₂ emissions from analysis of the energy and fuel use in their relevant buildings and transport, including where these services have been outsourced.²
- **NI186 – per capita CO₂ emissions in the LA area:** local authorities are uniquely placed to provide vision and leadership to local communities by raising awareness and to influence behaviour change. The percentage reduction in CO₂ per capita in each LA will be reported annually. This will be produced by central Government based on CO₂ emissions in the local area from business and public sector, domestic housing and road transport.
- **NI187 – tackling fuel poverty:** this indicator measures the proportion of households on income related benefits for whom an energy assessment of their housing has been carried out, to produce a measure of their home's energy efficiency. It applies to all households in both private and social sectors. This indicator therefore identifies where it is likely that energy saving measures would be most effective. Any energy saving measures carried out as a result would impact directly on NI186, above.

• ¹ more information on DEC can be found at www.communities.gov.uk/planningandbuilding/theenvironment/energyperformance/certificates/displayenergycertificates

• ² more information on National Indicators can be found at: www.defra.gov.uk/environment/localgovindicators/indicators.htm

- **NI194 – Air quality – reduction in NO_x and primary PM₁₀ emissions through local authority's estate and operations:** the aim of this indicator is to identify LAs that are proactive in minimising air pollution emissions from their estate and operations. Each LA will calculate their PM₁₀ (particulate matter) and NO_x (nitrous oxides) emissions from analysis of the energy and fuel used in their buildings and transport, including where services have been outsourced. Efforts to reduce energy consumption will, in general terms, improve both this indicator and NI 185.

Non-legislative drivers include:

- **Devon Sustainable Community Strategy and Local Area Agreement** The Local Area Agreement is a three year plan towards achieving the 10 year targets of the Devon Sustainable Community Strategy. This includes targets to reduce carbon dioxide emissions, 'green' public sector procurement, improve energy efficiency of housing stock and to support businesses involved in renewable energy.
- **Rising energy costs:** although opinions are somewhat divided, the world is close to, if not past, the tipping point for peak oil. This means that oil supplies will be reduced whilst demand continues to increase and, what oil there is, will be more expensive to extract. This will result in further increases in the price of oil. Additionally, as the UK becomes a net importer of energy, so the security of energy supply can no longer be guaranteed.
- **Stern Review:** the important outcome of the Stern Review was the realisation that it is much better to mitigate against climate change now (by reducing carbon dioxide emissions) than to carry on with business as usual and then try to adapt to the new climate. However, we are already locked in to some degree of climate change due to the inertia in the climate system.
- **Demographic changes in East Devon:** there is a general movement of people towards the south west and the population of East Devon is expected to grow by 30,000 people by 2050 from a population of 135,000 in 2005. In addition, there is a trend for people to live in smaller numbers per household.
- **Public pressure:** there is considerable enthusiasm amongst the local community for environmental issues. Ottery St Mary, Seaton, Sidmouth and Exmouth are all either working towards, or actively considering, Transition Town status whereby their community works to build resilience in an oil restricted economy.

2.2 Our low carbon vision

East Devon District Council's vision is to deliver our services effectively and efficiently with the minimum impact on the environment. The target of a 45% reduction in carbon dioxide emissions by 2014 (from the 2007/08 baseline) is challenging, but reflects the Council's desire to show leadership in our local community.

2.3 Strategic themes

Council owned housing stock The main target for investment will be Council owned housing stock. It is recognised that a substantial proportion of this housing will still be in use in 2050, so measures taken now to improve its efficiency will have long term benefits. Additionally, there is a substantial value at stake for our Council house tenants and thus the Carbon Management Plan should reduce the number of tenants in, or close to, fuel poverty and should help to increase the disposable income of tenants, hopefully boosting the local economy. Besides reducing discomfort and risks to health due to cold in winter, improvements to housing stock could also reduce heat stress during summer heat waves.

Green travel plan Reducing emissions from transport is seen as a difficult but vital part of the Carbon Management Plan. The challenge is great because it is more about behavioural change than technical fixes. It is recognised that establishing and maintaining the momentum of the Green Travel plan will require consistent effort, but it is hoped that behavioural change in the work place could well lead to behavioural change outside of the work place. It is also recognised that there are other benefits to reducing car travel such as improved health, providing a more efficient service to customers and having more cross departmental links.

Buildings This is currently a difficult area to take forward due the impending Local Government Reorganisation but there are many potential projects involving those buildings that are unlikely to be affected by any boundary changes such as Leisure East Devon facilities, public conveniences etc.

Embedding Embedding consideration of the carbon impact of any decision, process or action across all of East Devon District Council's activities is an essential part of getting carbon established as a 'bottom line'. The Carbon Management Plan includes steps to move towards the more challenging levels of the embedding matrix (Appendix A).

Towards Transition status? A number of local towns (Sidmouth, Seaton, Exmouth and Ottery St Mary) are working towards Transition Town status. In the widest scope of the Carbon Management Plan, it makes sense for East Devon District Council to work with community groups who have carbon reduction as one of their key guiding principles. East Devon District Council may like to consider identifying itself as a Transition District during the lifetime of the Carbon Management Plan.

2.4 Targets and objectives

East Devon District Council will reduce carbon dioxide emissions from Council operations by 45% by April 2014 from the 2007/08 baseline.

3 Emissions Baseline and Projections

3.1 Scope

Three levels of scope for the baseline and projects have been identified:

Level 1: Areas of work in which reducing carbon emissions would result in a financial benefit to East Devon District Council. Due to the predicted rises in energy costs, this may not necessarily mean a reduction in energy costs but it would mean that energy costs would not be as high as they would have been had we done nothing.

Scope level 1 includes:

- Council owned buildings energy use
- Council owned fleet fuel use
- Council owned business travel
- Refuse and recycling fleet fuel use
- Energy used in communal areas of Council owned housing
- Water used in Council buildings and operations
- Carbon embedded within procurement (no attempt has been made to quantify this carbon in the 2007/08 financial year, but over the lifetime of the Carbon Management Plan it is hoped that a Green Procurement policy can be put in place).

Level 2: Areas of work in which reducing carbon emissions would result in a financial benefit to another party such as Council owned housing tenants, Leisure East Devon and staff. Measures to reduce carbon emissions within the level 2 scope will have a definite and measurable affect.

Scope level 2 adds:

- Energy used in council owned housing
- Energy used by Leisure East Devon in delivering swimming pools and leisure centres
- Council employees commuting

Level 3: Areas of work in which East Devon District Council's role is to encourage and guide people within the community and business sector to reduce their carbon emissions. Data collected regionally suggests that East Devon ranks 29th out of 45 local authorities in the south west with carbon dioxide emissions at 8.5 tonnes per capita. For comparison, West Wiltshire ranks 1st (worst) at nearly 14 tonnes and Weymouth and Portland ranks 45th (best) at 4.5 tonnes per capita.

3.2 Baseline

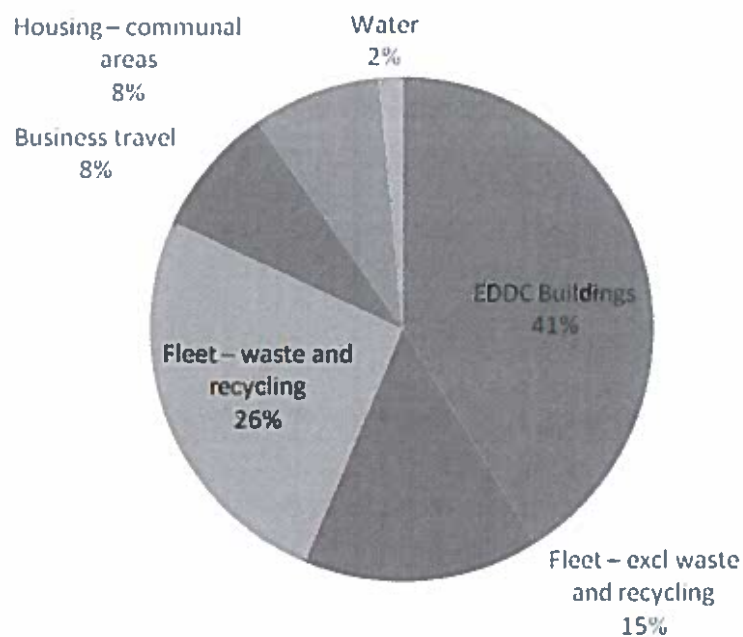
Baseline data for scope area 1 was gathered from information on the Cedar financial system for the financial year 2007/08. The financial cost was converted to kWh using an average rate of 3.3p per kWh for gas, 10p per kWh for electricity and 5.0p per kWh for oil. No attempt was made to check whether bills were estimated. For 2008/09 a system has been put in place to ensure that the amount of energy the invoice is for, and whether or not the bill is estimated, will be recorded. Any large bills based on estimates will then be investigated for accuracy.

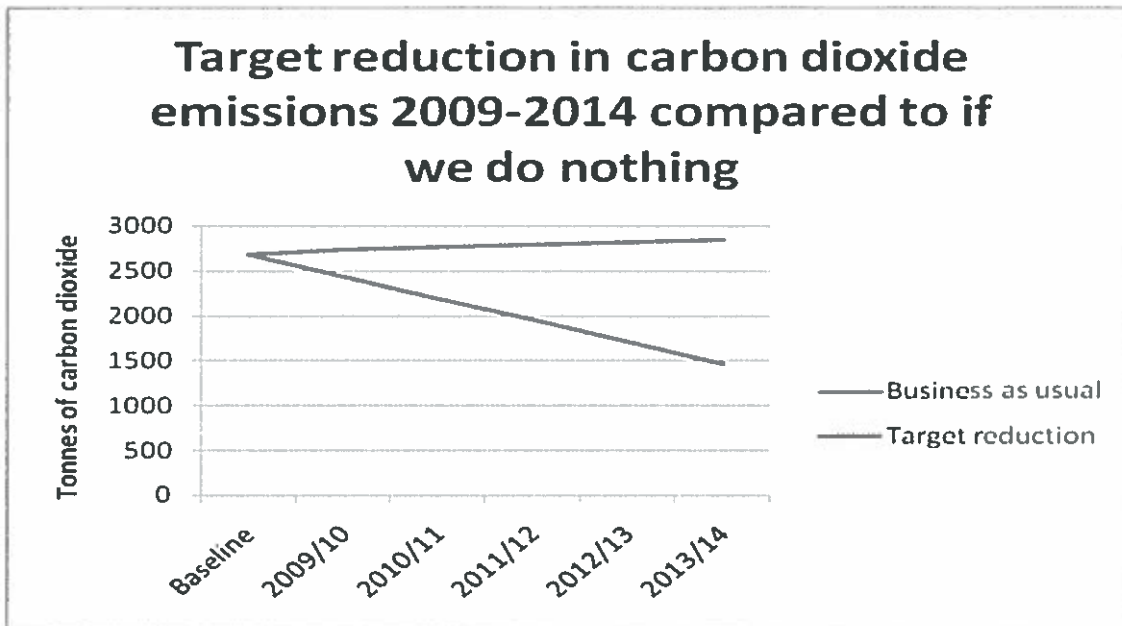
The baseline data for scope area 2 was gathered from meter readings from Leisure East Devon, a staff survey for commuting data and the Building Research Establishment's Domestic Energy Model for the energy use of Council owned housing. The data used in the Standard Assessment Procedure ratings would have been preferred but was not available at the time of compilation. The data used was compared with a sample of housing types on the Government's 'Act on CO2' calculator which suggested that the baseline data is at, or below, actual emissions. Ideally, a tenants' participation group could be recruited to provide an accurate sample of energy use, this would improve the accuracy of the baseline for the future.

3.3 Sources and baseline measurement of carbon dioxide emissions for Scope 1: Areas in which carbon saving would result in a relative financial saving to EDDC

Source	C02 emissions (tonnes)	% of total emissions	Cost to EDDC (£)	% of total cost
EDDC Buildings	1,100	41	246,000	31
Fleet – excl waste and recycling	407	15	50,000	6
Fleet – waste and recycling	688	26	tbc	
Housing – communal areas	220	8	40,000	5
Water	40	2	219,000	27
Business travel	223	8	250,000	31
TOTAL	2678	100	tbc	

Sources of carbon dioxide emissions from areas where carbon saving would benefit EDDC financially





The above chart shows that by 2014 East Devon District Council could be responsible for 1,366 fewer tonnes of carbon dioxide than if it carries on with 'business as usual'. This saving in carbon is known as the 'Carbon at Stake'. The average amount of carbon dioxide reduction required to achieve this is 241 tonnes per annum.

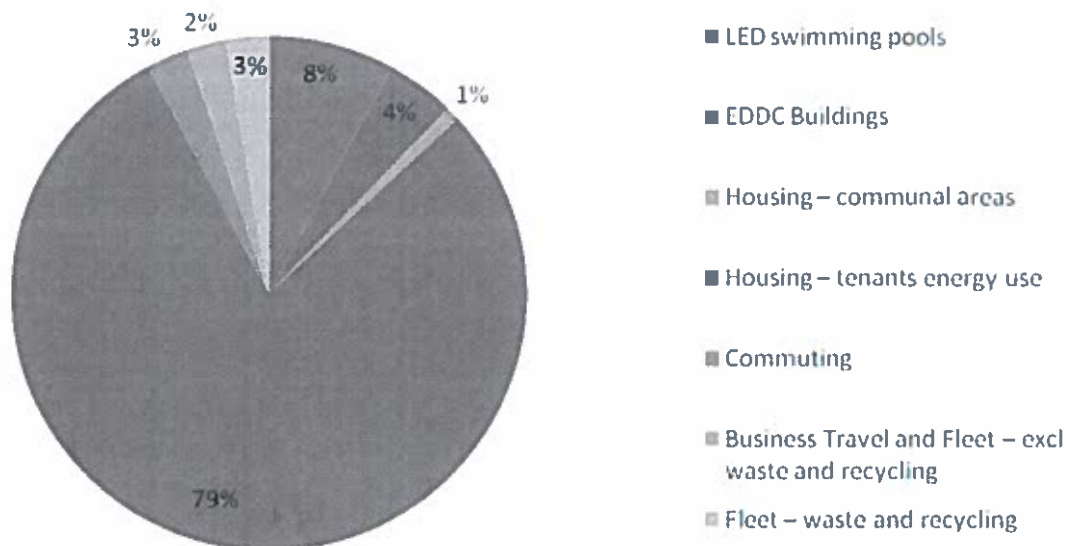
To calculate the 'Financial Value at Stake' some assumptions about the increasing cost of fuel over the 5 year period have to be made. Oil prices have been fluctuating significantly and are dependent on global markets – peaking at \$160 (check!) a barrel in October before falling to \$45 a barrel in December (data source here). Research commissioned by the National Housing Federation suggests a 55% rise in gas prices between 2007 and 2010 and a 25% rise in electricity prices over the same 3 years. Therefore for the purposes of this report a 40% rise in fuel prices over the period from the 2007/08 baseline to 2014 will be assumed. This figure will be revised if deemed necessary at the Carbon Management Plan's annual review.

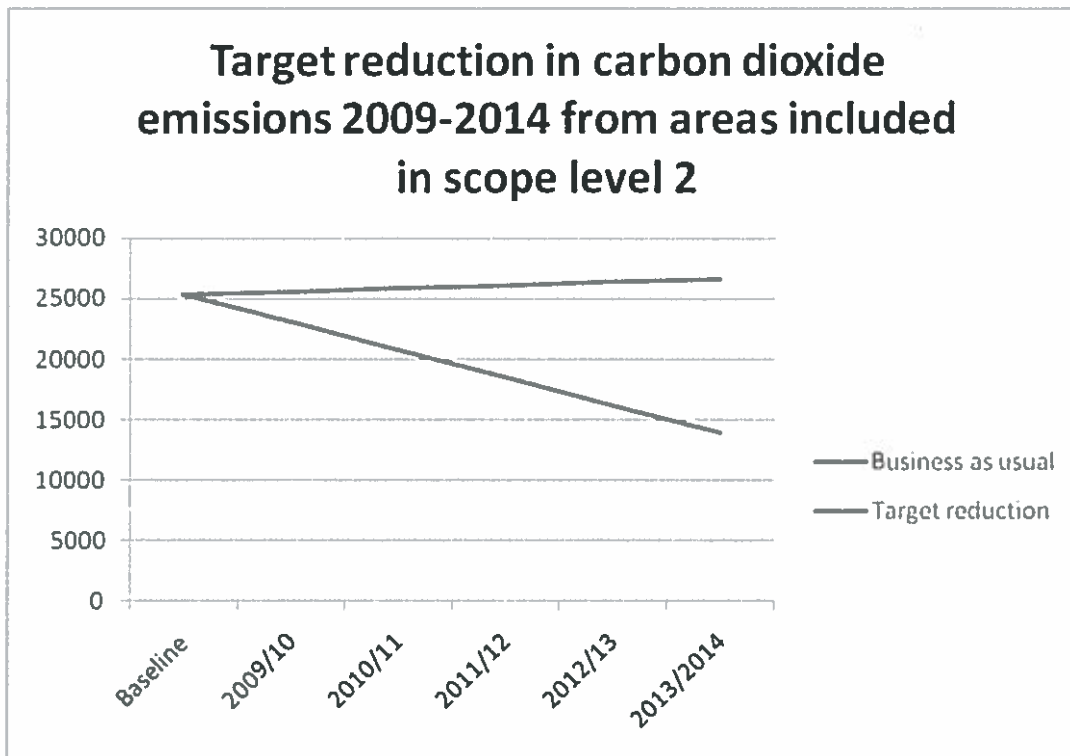
Financial value at stake graph to go in here

Sources and baseline measurement of carbon dioxide emissions for Scope 2: Areas in which carbon saving would result in a relative financial saving to another party

Source	Carbon dioxide emissions (tonnes)	Financial beneficiary	Contribution to total emissions in scope 2
LED swimming pools	1,185	Leisure East Devon	5%
LED dry leisure centres	810	Leisure East Devon	4%
Housing – tenants energy use	20,055	Housing tenants	88%
Commuting	674	Staff	3%
TOTAL	22724		100%

Sources of carbon dioxide emissions over which EDDC has significant influence





The above chart shows that the 'Carbon at Stake' for the areas covered by Scope 2 is 12,701 tonnes of carbon dioxide over the 5 year period. This is the difference between doing nothing and reaching our 45% reduction target over the 5 years. The average amount of carbon dioxide reduction required per annum is 2,286 tonnes.

Any financial savings arising from the areas covered in scope 2 cannot be 'ring fenced' for investment in other carbon saving measures as can those made from scope 1. Particularly for housing tenants and staff there is a risk that any financial saving made could just be spent on a carbon intensive activity – such as purchasing a holiday involving a flight, buying a high fuel consumption car or a plasma screen TV – resulting in little or no carbon saving overall. The challenge for East Devon District Council is to promote those areas covered by scope 3 in order to channel any financial saving into local, low carbon activities such as visits to local tourist destinations or buying local organic produce.

4 Carbon Management Projects

4.1 Existing projects

Ref	Project	Lead	Cost - Capital	Cost - Revenue	Cost - Resources	Annual saving - financial	Annual saving – CO2	Pay back	% of Target	Year
	Fuel monitoring (buildings)	SA								
	Compact fluorescent lighting	SA								
	Variable speed drives	AR								
	Server virtualisation	CP								
	Printer rationalisation	CP								
	Photocell control streetlights/bollards	D								
	Mobile working – provision of tablets	CP								
	Reduction in paper document production	Org Dev								
	Green printing strategy	CP								

4.2 Planned / funded projects

Ref	Project	Lead	Cost - Capital	Cost - Revenue	Cost - Resources	Annual saving - financial	Annual saving – CO2	Pay back	% of Target	Year
	Energy Policy	KH	-	-						
	Training in energy awareness	DB	-	-						
	Ring fencing savings	KH								
	Lighting improvements – Manor Pavilion	SA								
	Green wardens	DB								
	Green Travel Plan – Commuting	JP								
	Green Travel Plan – Fleet and business	JP								
	Green induction training	DB								
	Green training programme	DB								

4.3 Near term projects

Ref	Project	Lead	Cost - Capital	Cost - Revenue	Cost - Resources	Annual saving - financial	Annual saving – CO2	Pay back	% of Target	Year
	Green procurement	DP								
	Sub metering catering areas	SA								
	Council housing – loft insulation	SA								
	Council housing – efficient boiler replacement	SA								
	Renewable energy installation at	AR								

East Devon District Council Carbon Management Programme
Carbon Management Plan

	Sidmouth swimming pool									
	Use of wood waste for boilers	SA								
	Lighting improvements at Leisure Centres	AR								
	Pool covers at Swimming Pools	AR								
	Renewable energy project on Council owned housing – trial									
	Staff bus from Exmouth									

4.4 Medium to long term projects

Ref	Project	Lead	Cost - Capital	Cost - Revenue	Cost - Resources	Annual saving - financial	Annual saving – CO2	Pay back	% of Target	Year
	Council housing – alternative to solid fuel	SA								
	Council housing – alternative to electric storage heating	SA								
	Council housing – solar thermal installations	SA								
	Renewable energy installation/CHP at Exmouth Leisure Centre	AR								
	Renewable energy installation at Seaton Visitor Centre	TG								
	Relocation of head office	KH								

4.5 Projected achievements towards target (to be completed)

5 Carbon Management Plan Financing

To be completed

6 Actions to Embed Carbon Management in EDDC

The Embedding Matrix appears as Appendix A. It shows where EDDC is now and where it aspires to be by 2014. No insurmountable barriers are perceived for achieving level 5 across areas of Corporate Strategy, Programme Management, Responsibility, Data Management, Communication & Training and Policy Alignment. There are barriers such as limited staff resources, cost and the impact of Local Government Reorganisation to achieving level 5 for Finance & Investment, Boilers, Insulation, Heating, Lighting and Travel.

6.1 Corporate Strategy – embedding CO2 saving across EDDC

East Devon District Council Carbon Management Programme
Carbon Management Plan

The Corporate Strategy has a vision for an 'outstanding and sustainable quality of life for everyone in East Devon'. When the Corporate Plan is reviewed (?date) the 45% reduction in carbon dioxide emissions from the 2007/08 baseline will be added. Specific targets for buildings, housing and travel will be included in appropriate Service Plans at their next review (Autumn 2009).

6.2 Programme Management – bringing it all together effectively

Carbon management will only be effective if the carbon impact of every decision made and every action taken is considered. It is hoped that the CMP will drive the development of a carbon accounting system over the 5 year plan, such that by 2014 carbon is considered automatically in the same way that finance is considered now. An important aspect of this is the early development of 'branding' for the CMP whilst avoiding the tendency to see carbon considerations as an add-on.

6.3 Responsibility – being clear that saving CO2 is everyone's job

Target group	How delivered	Who will lead
All staff	Green Champions	CMP Project leader
Individual services	Service planning	Heads of Service
All staff	Green team	CMP Project leader
All staff	Job descriptions	Human resources
All staff	Performance review	Line managers
Staff with procurement responsibility	Procurement policy	Procurement officer when in post Heads of Service in meantime

6.4 Data Management – measuring the difference, measuring the benefit

Category	How data will be collected	Frequency of data collection	Who is responsible for data collection
Buildings – Council occupied	Invoices	Monthly	Sue Hodges (Finance)
Buildings – LED occupied	Meter readings	Monthly	Andy Reay (LED)
Transport - commuting	Staff questionnaire	Annual	Green Team
Transport - business	Mileage claims, fuel purchase	Monthly	Jonathan Parsons (payroll); Pauline Druce (Streetscene)
Housing – Council paid energy bills	Invoices	Monthly	?
Housing – tenant paid energy bills	?Tenant liaison groups or estimation	6 monthly	Tenant liaison officer

6.5 Communication and training – ensuring everyone is aware

Medium	Audience	Frequency
Induction training	New staff	As appropriate
The Knowledge (newsletter)	Staff, Councillors and public	Weekly

East Devon District Council Carbon Management Programme
Carbon Management Plan

Team Brief	Staff and Councillors	Monthly
Green Wardens	All staff	Weekly
Workshops, film events	All staff	6 monthly
Meetings, workshops, film events	Local interested groups, public	As appropriate
Energy consumption graphs	Members of the public, staff	Quarterly
Display Energy Certificates	Members of the public, staff	Annually

6.6 Finance and investment – the money to match the commitment

The current economic downturn and the many unknowns due to Local Government Reorganisation mean that the emphasis will be on low cost projects during 2009/10. High investment projects are being held back to later in the 5 year plan. However, it has been noted and accepted that carbon management investment at a rate of £500 per tonne of carbon saved would be an appropriate figure for future financial planning.

6.7 Policy alignment – saving CO2 across operations

Policy/activity	Relevance to carbon management	Planned review	Owner
Procurement	Embedded carbon, waste and recycling, social and environmental responsibility	2009 (post of Procurement Officer currently vacant and recruitment frozen)	Heads of Service
Human Resources	Job descriptions, training, business travel, essential car users allowance, salary sacrifice schemes for cycling and bus transport	On-going	Various HR and payroll staff
Service Planning	Carbon management part of every service plan	Service plans reviewed annually. CM aspect of each to be reviewed by CMP leader	Head of appropriate Service

7 Programme Management of the Carbon Management Programme

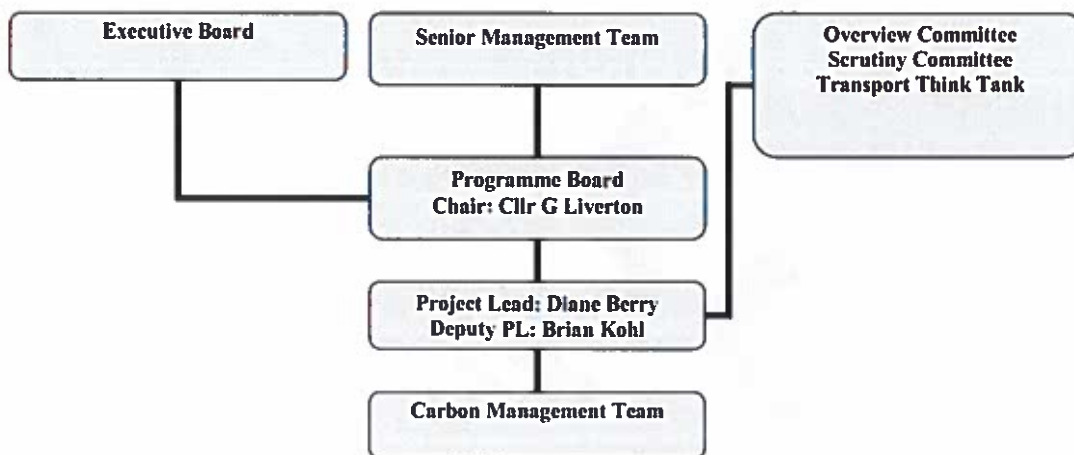
Good Programme Governance will be achieved by:

- ownership of CMP by senior members of Council eg Environment Portfolio Holder, Sustainability Champion, Chairs of appropriate Task and Finish Fora
- ownership of CMP by senior members of EDDC eg Chief Executive, All Directors, All Heads of Service
- ownership and involvement in CMP by all staff
- regular reporting via the weekly Knowledge (a public newsletter) and Team Brief (a monthly internal newsletter) to demonstrate progress and coherence of CMP

7.1 The Programme Board – strategic ownership

The Programme Board will comprise:

- o Chair: Councillor Graham Liverton, Portfolio Holder – Environment, Sponsor
- o Karime Hassan, Corporate Director – Environment, Sponsor
- o Councillor Frances Newth, Sustainability Champion, Co-Sponsor
- o Mark Williams, Chief Executive, Co-Sponsor
- o Simon Davey, Head of Finance



The Programme Board will meet twice a year to:

- Review progress of projects
- Monitor the direction and progress of the CMP as a whole
- Consider what it will report to SMT/Executive Board

7.2 The Carbon Management Team – delivering the projects

The Carbon Management Team will operate as three groups:

CMT group	Chaired by	Terms of reference	Frequency of meetings
Housing	Andy Grigg	Delivery of carbon saving projects for tenants in Council owned housing	3 monthly
Transport	Jonathan Parsons	15% reduction in commuting and business travel over 5 years	3 monthly
Buildings	Simon Allchurch	Delivery of carbon saving projects for Council owned buildings, including those used for outsourced services	3 monthly

7.3 Succession planning for key roles

Local Government Reorganisation is currently underway in Devon. It is hoped that a clearer picture of future staffing will be available by the time this Carbon Management Plan is formally adopted

7.4 Ongoing stakeholder management

Stakeholder	Area of interest	How engaged	Frequency
Staff	All of CMP	Workshops, films, other events	6 monthly
Green Team	All of CMP	Meetings	3 monthly
Programme Board	All of CMP	Meetings	6 monthly
Carbon Management Team	All of CMP	Meetings, workshops	3 monthly
Various Task and Finish Forums (eg transport, sustainable construction)	Relevant aspects of CMP	Meetings	Ad hoc
Leisure East Devon	Buildings	Meetings	As required
SITA Trust	Waste and recycling	Meetings	As required
Other contractors	Buildings, housing	Meetings	As required
Community	All of CMP	Transition Town groups	As required

7.5 Annual Progress Review

Progress of the Carbon Management Plan will be reviewed as follows:

- annual review by Corporate Overview Committee
- annual review by Programme Board
- annual review by Carbon Management Team

These reviews will include:

- delivered carbon savings against cost for most recent accounting period
- projected carbon savings against cost for next accounting period
- any financial savings to EDDC or other parties (eg tenants, outsourced service providers)
- other less quantifiable benefits of projects
- alignment of carbon management plan with NI185, NI186 reporting

Appendix A: Embedding Matrix

	3		2		2		2		2		2			
	5		5		5		5		5		5			
	CORPORATE STRATEGY		PROGRAMME MANAGEMENT		RESPONSIBILITY		DATA MANAGEMENT		COMMUNICATION & TRAINING		FINANCE & INVESTMENT		POLICY ALIGNMENT *	
BEST 5	<ul style="list-style-type: none"> Top level target allocated across organisation CO₂ reduction targets in Directorate Business Plans 		<ul style="list-style-type: none"> Cabinet / SMT review progress against targets on quarterly basis Quarterly diagnostic reports provided to Directorates Progress against target published externally 		<ul style="list-style-type: none"> CM integrated in responsibilities of senior managers CM part of all job descriptions Central CO₂ reduction advice available Green Champions leading local action groups 		<ul style="list-style-type: none"> Quarterly collation of CO₂ emissions for all sources Data externally verified M&T in place for: <ul style="list-style-type: none"> buildings street lighting waste 		<ul style="list-style-type: none"> All staff given formalised CO₂ reduction: <ul style="list-style-type: none"> induction and training communications Joint CM communications with key partners Staff awareness tested through surveys 		<ul style="list-style-type: none"> Finance committed for 2+yrs of Programme External funding being routinely obtained Ring-fenced fund for carbon reduction initiatives 		<ul style="list-style-type: none"> CO₂ friendly operating procedure in place Central team provide advice and review, when requested Barriers to CO₂ reduction routinely considered and removed 	
4	<ul style="list-style-type: none"> CO₂ reduction commitment in Corporate Strategy Top level targets set for CO₂ reduction Climate Change Strategy reviewed annually 		<ul style="list-style-type: none"> Sponsor reviews progress and removes blockages through regular Programme Boards Progress against targets routinely reported to Senior Mgt Team 		<ul style="list-style-type: none"> CM integrated in to responsibilities of department heads Cabinet / SMT regularly updated Staff engaged through Green Champion network 		<ul style="list-style-type: none"> Annual collation of CO₂ emissions for: <ul style="list-style-type: none"> buildings street lighting transport waste Data internally reviewed 		<ul style="list-style-type: none"> All staff given CO₂ reduction: <ul style="list-style-type: none"> induction communications CM matters communicated to external community 		<ul style="list-style-type: none"> Coordinated financing for CO₂ reduction projects via Programme Board Finances committed 1yr ahead Some external financing 		<ul style="list-style-type: none"> Comprehensive review of policies complete Lower level policies reviewed locally Unpopular changes being considered 	
3	<ul style="list-style-type: none"> CO₂ reduction vision clearly stated and published Climate Change Strategy endorsed by Cabinet and publicised with staff 		<ul style="list-style-type: none"> Core team regularly review CM progress: <ul style="list-style-type: none"> actions profile & targets new opportunities 		<ul style="list-style-type: none"> An individual provides full time focus for CO₂ reduction and coordination across the organisation Senior Sponsor actively engaged 		<ul style="list-style-type: none"> Collation of CO₂ emissions for limited scope i.e. buildings only 		<ul style="list-style-type: none"> Environmental / energy group(s) given ad hoc: <ul style="list-style-type: none"> training communications 		<ul style="list-style-type: none"> A view of the cost of CO₂ reduction is developing, but finance remains ad-hoc Some centralised resource allocated Finance representation on CM Team 		<ul style="list-style-type: none"> All high level and some mid level policies reviewed, irregularly Substantial changes made, showing CO₂ savings 	
2	<ul style="list-style-type: none"> Draft Climate Change Policy Climate Change references in other strategies 		<ul style="list-style-type: none"> Ad hoc reviews of CM actions progress 		<ul style="list-style-type: none"> CO₂ reduction a part-time responsibility of a few department champions 		<ul style="list-style-type: none"> No CO₂ emissions data compiled Energy data compiled on a regular basis 		<ul style="list-style-type: none"> Regular awareness campaigns Staff given CM information on ad-hoc basis 		<ul style="list-style-type: none"> Ad hoc financing for CO₂ reduction projects 		<ul style="list-style-type: none"> Partial review of key, high level policies Some financial quick wins made 	
1	<ul style="list-style-type: none"> No policy No Climate Change reference 		<ul style="list-style-type: none"> No CM monitoring 		<ul style="list-style-type: none"> No recognised CO₂ reduction responsibility 		<ul style="list-style-type: none"> No CO₂ emissions data compiled Estimated billing 		<ul style="list-style-type: none"> No communication or training 		<ul style="list-style-type: none"> No specific funding for CO₂ reduction projects 		<ul style="list-style-type: none"> No alignment of policies for CO₂ reduction 	

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

Embedding Matrix (cont'd)

	Now	2	4	2	4	2	4	2	4	
		BOILERS		INSULATION		HEATING		LIGHTING		TRAVEL
BEST										
5	<ul style="list-style-type: none"> Regular: <ul style="list-style-type: none"> Efficiency monitoring "Preventative", regular maintenance BMS systems set to reflect occupancy 	<ul style="list-style-type: none"> All Lofts insulated to >270mm, All cavity walls filled Internal solid wall insulation where appropriate Floor /flat roof insulation where applicable All window's double/secondary glazed 	<p>Heating strategy includes:</p> <ul style="list-style-type: none"> Zoned controls Bottom-up issue reporting Weather correction Regular Reviews Advanced BMS 	<ul style="list-style-type: none"> Occupancy and daylight controlled lighting systems installed Consideration of best lamp and luminaire for job Official switch off policy includes training to cleaners, All switches labelled 	<ul style="list-style-type: none"> Full time travel coordinator Procurement of vehicles considers CO2 emissions Mileage reimbursement carbon sensitive Comprehensive travel plan includes: car sharing, cycle paths, subsidised bus pass Internally bicycle compound, showers & drying room 					
4	<ul style="list-style-type: none"> Combustion conditions maintained regularly Results regularly logged & profiled 	<ul style="list-style-type: none"> Loft insulation min 200mm, over half of cavity walls filled Draught proofing/ draught strips to leaky windows doors Majority of windows double/secondary glazed 	<ul style="list-style-type: none"> Zoned controls accommodate: <ul style="list-style-type: none"> Local occupancy Temperature Times Regular review 	<ul style="list-style-type: none"> Zones created separate lighting controls for areas Triphospor specified for new fluorescent lamps Failing lamps replaced quickly WSL cleaned quarterly Switch off policy security led most switches labelled 	<ul style="list-style-type: none"> Part time travel coordinator Clean pool cars and vehicles available to staff are hybrid some electric but no green tariff in place Thorough travel plan Mileage reimbursement carbon sensitive 					
3	<ul style="list-style-type: none"> Meters on all boilers Results regularly logged 	<ul style="list-style-type: none"> Loft insulation 100mm in majority of buildings, A quarter of cavities filled Door closers to external spaces Double/secondary glazing over half of all sites 	<ul style="list-style-type: none"> Controls have: <ul style="list-style-type: none"> Weather correction 24/7 time control Local adjustment capacity Ad hoc Review 	<ul style="list-style-type: none"> Time delay switches in some low occupancy areas Failing lamps are replaced WSL cleaned twice a year Switch off campaign staff responsibility some labelling 	<ul style="list-style-type: none"> Ad hoc travel coordination Pool cars are available for short trips but are petrol/diesel Basic green travel plan in place Ad hoc promotion of cycling, walking and public transport 					
2	<ul style="list-style-type: none"> Operational controls: <ul style="list-style-type: none"> In place Programme not changed regularly 	<ul style="list-style-type: none"> Number of properties with pitched roofs/cavity wall known and majority not insulated Majority of solid walls/floors not insulated Less than half of windows are double/secondary glazed 	<ul style="list-style-type: none"> Thermostatic Radiator Valves Timed controls are 24h only 	<ul style="list-style-type: none"> Sensors control external lighting T2 fluorescent tubes replaced with T8 tubes Failing lamps are replaced when a number require replacement WSL cleaned once/yr Informal switch off policy manual control only, no switches labelled 	<ul style="list-style-type: none"> Little travel consideration Draft travel plan Some public reference to walking & cycling 					
1	<ul style="list-style-type: none"> Operational controls: <ul style="list-style-type: none"> Manual Statutory maintenance only 	<ul style="list-style-type: none"> Number of properties with pitched roof or cavity wall unknown Majority of windows single glazed Basic instructions for door operation i.e. to keep shut 	<ul style="list-style-type: none"> Boiler thermostat only control of temperature Single pipe heating system 	<ul style="list-style-type: none"> Like for like replacement of lamps on failure Windows, Skylights, Luminaires (WSL) cleaned once or every other year Only failed lamps replaced No switch off policy or staff awareness 	<ul style="list-style-type: none"> No green travel policy No long term sustainable consideration of travel No cycle lanes or reference to walking or public alternatives 					

Agenda Item

Overview Committee

26 February 2009

KH



Definition of Zero Carbon Homes and Non-Domestic Buildings

Summary

On 17 December, The Department of Communities and Local Government published a consultation on the definition of zero carbon homes.

<http://www.communities.gov.uk/publications/planningandbuilding/zerocarbondefinition>

This consultation follows up on the July 2007 *Building a Greener Future – policy statement* and sets out our proposals for the detailed definition of zero carbon homes that will apply from 2016. The consultation also sets out current thinking on Government's ambition that all new non-domestic buildings should be zero carbon from 2016 (2018 in relation to public sector buildings). There will be a further, in-depth consultation on non-domestic buildings in 2009. The consultation closes on 18 March 2009. Key proposals include:

- requiring a greatly increased level of energy efficiency in the fabric of new homes
- setting a minimum level of carbon reduction that developers must achieve on the site of the housing development, such as through improved insulation, or providing onsite renewable energy
- requiring developers to tackle the remaining carbon emissions of the new homes, by choosing measures from a list of "allowable solutions", such as providing energy efficient appliances with the home or exporting low and zero carbon heat and cooling to surrounding developments.
- setting a limit on the amount expected to be spent on these allowable solutions, to provide the house-building industry certainty over maximum costs of the policy
- reviewing the list of allowable solutions in 2012 to ensure they will be sufficiently available within the cost limit that has been set and to check whether the proposed list of allowable solutions needs to be updated.

Recommendation

1. In principle Members support the Government's approach of a hierarchy of measures for meeting the zero carbon standard and agree that the Code for Sustainable Homes should be revised to reflect the approach to zero carbon homes described in the hierarchy.
2. Members comments are sought on the proposals set out in the consultation document for consideration by the Executive Board.
3. EDDC is keen to work with the Government on delivering a practical example of a site wide solution to providing low and zero carbon homes within Cranbrook new community, a prototype Eco-Town, and would welcome a dialogue with the DCLG and the HCA on how this may be taken forward.

a) Reasons for Recommendation

Delivering zero carbon development is a key plank of the Council's climate change strategy. The work the Council has undertaken in relation to Cranbrook and the Growth area has identified practical difficulties in achieving zero carbon developments. The Task and Finish Forum that has

been set up to address sustainable construction is also grappling with the practical issues addressed in the consultation document.

b) Alternative Options

Refer report to the T&FF for detailed scrutiny before responding to Executive Board.

c) Risk Considerations

Not applicable.

d) Policy and Budgetary Considerations

This work relates to the corporate priority of A Green Environment.

e) Date for Review of Decision

Not applicable.

Main Report

Building a Greener Future: Policy Statement (2007) announced that all new homes will be zero carbon from 2016, and said that Government would consult again on the detailed definition. Budget 2008 announced the Government's ambition that all new non-domestic buildings should be zero carbon from 2019. This consultation proposes a definition of zero carbon new homes, based on high energy efficiency, on-or near-site carbon reduction, and allowable solutions for dealing with the remaining emissions. The paper also sets out current Government thinking on zero carbon new non-domestic buildings.

Technical Feasibility

The Government has an ambitious programme to increase housing supply and believes it would be unacceptable if its zero carbon policy were defined so rigidly that it would be technically infeasible for a substantial proportion of housing developments.

Technical feasibility is dynamic, not fixed. Regulation can drive innovation and help to bring forward the technologies to make zero carbon homes easier to build. Development sites that come forward through the planning process will also be influenced by the policy environment. So, in future, we may see more development whose location and configuration are more amenable to building zero carbon homes.

It was understood, from the analysis for *Building A Greener Future*, that some homes would not be able to meet the zero carbon standard through onsite energy solutions alone. Over the past year, the UK GBC Zero Carbon Definition Task Group has investigated this further. By changing two assumptions in the modeling of zero carbon homes, they found that the percentage of homes unable to meet the definition through onsite energy solutions could be higher than previously understood.

A Hierarchical Framework

The UK GBC Task Group recommended a hierarchy of measures for meeting the zero carbon standard. This hierarchy would prioritise, in turn: energy efficiency parameters; carbon mitigation onsite or near-site; offsite low and zero carbon energy; and a buy-out fund whose proceeds would be used to fund investment in low and zero carbon energy.

Government is attracted in principle to a hierarchical approach to delivering the zero carbon homes policy. Such hierarchies have served a useful role in prioritising actions in other sectors (eg the "reduce - reuse - recycle" hierarchy used in the waste sector).

The Government believes that, whatever the mix of onsite energy technologies and other offsite solutions adopted, all zero carbon homes should be built to very high standards of **energy efficiency**. Such an approach prioritises measures which are likely to be cost-effective in the longer-term and will generate wider benefits to the economy as a whole, for example reducing the overall energy requirement to be met from relatively costly renewable energy.

The next component is referred to as “**carbon compliance**”. This is the minimum level of reduction in carbon dioxide emissions, compared to current Building Regulations (see box 4), that is required to be achieved onsite and/or through direct connection of low and zero carbon heat (not necessarily onsite). Government has already announced improvements of 25 per cent in 2010 and 44 per cent in 2013 (both relative to the 2006 requirements) for domestic buildings. There is a question of how much further beyond 44 per cent, if at all, we should move in 2016.

Unless the house builder decides to reach the carbon compliance homes standard (including dealing with emissions from appliances) through carbon compliance measures alone, there will be the remaining emissions (referred to as “**residual emissions**”) which need to be tackled in order to meet the zero carbon standard. A list of “**allowable solutions**” for dealing with residual emissions is identified in the consultation document. It includes a range of measures that can be undertaken in the locality or potentially further afield, for example via exports of heat or direct investments in offsite renewable electricity. Together, the carbon compliance measures and allowable solutions should cover all expected emissions from the homes, including regulated emissions and emissions from cooking and appliances.

The cost of the allowable solutions will depend on local circumstances and opportunities for investment in infrastructure such as heat networks and renewable energy. It will take some time for the policies that will support such infrastructure to be established and for the costs of such infrastructure to be known with precision. However, developers need to be able to plan strategic land purchases with certainty, and industry supply chains need to make investment decisions in preparation for 2016. Government therefore proposes a mechanism to review the policy in 2012, to confirm that the allowable solutions can be put in place at or below a “**capped cost**”. Government’s thinking in relation to the review and the capped cost is set out in the consultation document.

Code for Sustainable Homes

Launched in December 2006, the Code for Sustainable Homes is the Government’s standard for assessing the sustainability (according to nine key criteria) of new homes. Ratings against the Code range from one to six stars – a six star rating (also referred to as Level 6) being the highest rating. In publishing the Code, it was Government’s intention to signal the future direction of Building Regulations relating to sustainability issues.

One of the key features of Level 6 of the Code is that the home should be zero carbon. The definition of zero carbon in the Code differs from the approach set out in the hierarchy above in that renewable energy sources are only allowable towards the carbon calculation if they are connected via “private wire”. A further requirement is that Level 6 homes should achieve a heat loss parameter of 0.8 W/m²K, which may or may not become the energy efficiency backstop underpinning the zero carbon home standard.

In moving towards a definition of zero carbon homes to be used for regulatory purposes that is based on the hierarchy described above, the questions therefore arise as to whether the Code should be revised so as to reflect the zero carbon policy and/or whether:

- the Code should be revised so as to reflect the zero carbon homes standard
- level 6 of the Code should continue to be based on meeting zero carbon solely via renewable energy that is either onsite or connected by private wire
- level 6 of the Code should continue to require a heat loss parameter of 0.8W/m²K.

The Government’s view is that the Code does need to be revised to take account of the further policy development set out in this document, but recognises that there is a number of ways in which that could be done.

Energy Efficiency

The Government thinks it is right to continue to set out minimum energy efficiency standards rather than leave it to developers to choose as part of their preferred approach to zero carbon. We think that these standards should be set at an ambitious but nonetheless realistic level, to encourage builders and developers to build in a high level of energy efficiency and to drive innovation.

A number of technologies exist which can result in very energy efficient homes. Typically, such homes are characterised by high levels of insulation (and hence low U-values for exterior surfaces), passive use of solar energy and a low level of air leakage through unsealed joints. They may also

include technologies such as passive preheating of fresh air and mechanical ventilation with heat recovery.

A number of standards exist for very energy efficient homes. One example is the PassivHaus standard³⁵, which originated in Germany. The Energy Saving Trust (EST) publishes guidance on energy efficiency standards which can satisfy the higher levels of the Code for Sustainable Homes. The Government understand that using such energy efficiency standards should permit carbon reductions in excess of the 25 per cent improvement that has been announced for 2010 and perhaps approaching the 44 per cent announced for 2013. Government is minded to include demanding energy efficiency backstops within the 2016 Building Regulations which will yield carbon reductions within this range, with an appropriate trajectory towards that level in 2010 and 2013.

High energy efficiency means lower demand for heat. Some stakeholders have noted that this affects the business case for combined heat and power (CHP) and have suggested the possibility of relaxing the energy efficiency standards in situations where CHP is deployed. Government is not inclined to follow this approach since, in the longer term, energy efficiency measures should be the most cost effective and should be pursued first. In mixed use developments and developments that are adjacent to existing settlements, there is often potential to use surplus heat in the surrounding community, through district heating networks, and so contribute to tackling emissions from the existing stock.

Besides the energy efficiency of the envelope of the building, the efficiency of systems used to provide space heating, hot water and ventilation will affect the amount of energy used to run the home. As far as hot water is concerned, there is scope to save energy by improving the efficiency with which hot water is used. Government has consulted on an amendment to Part G (Hygiene) of the Building Regulations to introduce a regulatory standard of a maximum consumption of water (hot and cold) of 125 litres / head / day. The revised Part G is expected to come into effect in October 2009.

An alternative approach would be to create a mechanism for attributing offsite renewable electricity to housing developments and then to allow all such electricity (however connected) to count towards the carbon compliance calculations. Any such attribution mechanism would need to be able to check that the same electricity production was (i) not being claimed by multiple developments and (ii) not simply production capacity that was already being funded and developed but was simply being 'badgered' with a housing development.

However, there is a further approach which Government prefers. This is to count off site renewable electricity generation towards the allowable solutions rather than towards the carbon compliance level. There are a number of reasons for this:

- this approach should be more straightforward from a regulatory perspective. It would require Building Control Bodies (assuming they are the bodies that verify carbon compliance) to consider only onsite energy (and directly connected heat, which should be straightforward). They would need to make judgments about investment relationships with electricity infrastructure located away from the development, which is a matter better left to other parties; and
- it encourages developers to prioritise onsite energy and near-site heat over offsite renewables. Given that it is not straightforward to demonstrate that offsite electricity is additional to what would have happened in the absence of the housing, and given the difficulties about allocating carbon reductions to electricity generation, Government thinks this prioritisation is appropriate.

Government therefore proposes that carbon compliance calculations should take into account:

- electricity imported from outside the development (which would be deemed to have the carbon intensity of the overall electricity grid)
- gas imported from the gas network and other fossil fuels used onsite (including, if relevant, for onsite generation of electricity)
- emissions associated with heat (or cooling) provided directly to the dwelling from sources outside the development; and
- credit for exports of LZC electricity from onsite generation.

Allowable solutions

The energy efficiency and carbon compliance standards will significantly reduce the carbon emissions of a new home compared to current regulations. However, this still leaves a residual carbon footprint that needs to be addressed in order to meet the zero carbon home standard. Therefore developers will need to employ some combination of 'allowable solutions' in order to deal with the residual emissions remaining after taking account of the minimum carbon compliance standard. Examples of allowable solutions include:

- a credit for any energy efficient appliances or advanced forms of building control system installed by the house builder that reduce the anticipated energy demand from appliances⁴³ or reduce regulated emissions below the level assumed by SAP
- where, as a result of the development, low carbon or renewable heat (or cooling) is exported from the development itself, or from an installation that is connected to the development, to existing properties that were previously heated (or cooled) by fossil fuels, then credit will be given for the resulting carbon savings
- a credit for S106 Planning Obligations paid by the developer towards local LZC energy infrastructure
- retrofitting works undertaken by the developer to transform the energy efficiency of existing buildings in the vicinity of the development
- any investment by the developer in LZC energy infrastructure (limited to the UK and UK waters) where the benefits of ownership of that investment are passed to the purchaser of the home
- where offsite renewable electricity is connected to the development by a direct physical connection (and without prejudice to any regulatory restrictions on private wire), a credit for any carbon savings relative to grid electricity.

Comments

The proposed approach set out in the hierarchy is a pragmatic response to a challenging goal of delivering zero carbon development. The Council's experience working with the private sector in delivering the Cranbrook new community has illustrated the practical challenges in meeting the low and zero carbon agenda as set out in the Code for Sustainable Homes. The difficulties are technical as well as cost. The proposed hierarchy approach would enable the LPA to address in a sensible and cost effective way provision of site wide infrastructure and off site solutions as part of the solution to meeting zero carbon objectives. Restricting the definition of carbon zero so as to require renewable energy on site or through private wire will not work in many locations with a consequence that the building industry will not engage and we simply stop building homes in sufficient numbers.

Furthermore, there appear to be practical legal difficulties with insisting on a private wire connection from the new homes to combined heat and power plants. Therefore providing allowable solutions off site and not necessarily through a private wire provides solutions as we embark on the LZC journey. The Government has to balance the challenging aims with the credibility of the policy. There is a danger that the task is considered so demanding that we do not get meaningful take up by the development industry until it becomes mandatory in 2016.

We are keen to see an accelerated delivery in advance of the 2016 time table, especially as the new community is a prototype eco-town and the planning framework that is being laid down will be built out over twenty years. EDDC is keen to explore with DCLG and the HCA a practical example of how a district wide Biomass CHP could be provided early in the construction of Cranbrook. The work that has been done on a low and zero carbon strategy for Cranbrook suggests that a CHP will not be viable in the short term but that to achieve Code level 6 housing in 2016 the cheapest way of delivering the standard will be a Bio mass CHP. Early delivery of the pipe work for the CHP would require significant subsidy and we would wish to explore with DCLG whether there is a willingness to look at this in a favourable way for grant funding.

The Allowable solutions reflect many of the practical considerations advanced by the new community partners during the course of negotiations over the development of Cranbrook. However, these solutions illustrate the importance of the planning process to provide district wide solutions to renewable energy and heat. It is capable of working if the LPA provides the framework for low and zero carbon energy infrastructure. The 106 agreements process will allow the Council to capture payments to assist deliver the infrastructure and provide developers with cost certainty and a technical solution to addressing the residual carbon emissions.

The Government is right to insist on minimum energy efficiency standards rather than leave it to developers to choose as part of their preferred approach to zero carbon; and it is appropriate the Building Control regulations is the right regulatory framework for monitoring and enforcing carbon compliance

Legal Implications

There are no legal observations.

Financial Implications

Any expenditure, mainly in the form of staff time, can be accommodated within the Climate Change and/or the Growth Point Delivery Team budgets. There will be receipts from S106 contributions once development has started.

Consultation on Reports to the Executive

Reports to the Executive re the budget/policy framework must detail the nature, extent and outcome of consultation with stakeholders and relevant Overview Committees. Reports about other matters must give details and outcome of consultation as appropriate

Background Papers

- Background papers to be listed using bullet points;
- Identify if these have been submitted to Committees etc before;
- Background papers attached to the report must be clearly identified by a reference letter in the report and reference repeated here.

Karime Hassan - 2735
Corporate Director

Overview Committee