Bournemouth,Dorset & Poole Energy Efficiency Strategy & Action Plan

# **Final for Endorsement**

Prepared by the Centre for Sustainable Energy for Dorset County Council and the Dorset Energy Group February 2009







#### EXECUTIVE SUMMARY

Dorset County Council, with funding from the local authorities of Dorset and Government Office for the South West (GOSW), has commissioned the Centre for Sustainable Energy (CSE), a national charitable company based in Bristol, to develop an Energy Efficiency Strategy and Action Plan for Bournemouth, Dorset and Poole. The Energy Efficiency Working Group of the Dorset Energy Group is steering the development of the strategy.

The Dorset Energy Efficiency Strategy includes the domestic, business, public (local authorities only), and community and charitable sectors, and covers both energy efficiency and fuel poverty.

Developing a coherent strategy for action to improve energy efficiency and curb energy demand across Dorset is a key element of realising the potential within the county to reduce carbon emissions, eliminate fuel poverty, and save energy costs. The strategy must be designed to deliver a step change; 'business as usual' is neither economically rational, socially beneficial nor environmentally necessary.

The vision for this strategy is:

"For the people of Bournemouth, Dorset and Poole to work together to improve energy efficiency in our homes, communities and workplaces and cut our carbon emissions."

The strategy has a CO<sub>2</sub> reduction target, as follows:

To achieve a 30% reduction in  $CO_2$  emissions by 2020, relative to 2005, in line with national targets.

It is suggested that this includes interim milestones for 2010 and 2015. Using projections for population and household growth, it is calculated that the 2020 target will be equal to a 34% reduction in per capita  $CO_2$  emissions and a 39% reduction in per household  $CO_2$  emissions.

The strategy also has two fuel poverty targets. The first, based on national targets, represents an aspiration but is difficult to measure, and so it is supplemented by the second, measurable two-part target.

1. To seek to eliminate fuel poverty in Bournemouth, Dorset and Poole by 2016

2a. To work in partnership to achieve an average SAP rating<sup>1</sup> of 65-70 in the housing stock by 2016

2b. To ensure that there will be no dwelling with a SAP rating of 35 or less in Bournemouth, Dorset and Poole by 2016.

<sup>&</sup>lt;sup>1</sup> The Standard Assessment Procedure, known as SAP, is the standard way to measure the energy performance of a dwelling, in terms of the annual energy cost of space and water heating. It is a scale ranging from 1 to 120, with 1 being the worst energy performance, and 120 being a dwelling which is a net energy producer.

Based on an assessment of current performance in Dorset, which is touched on in chapter 5 and detailed in the appendices to this document, priority areas for action have been identified for each sector. These are split into overarching and sector-specific priority areas, as follows:

Overarching priority areas	Strategic focus and institutional leadership
	Resources
	Publicity and networks
	Planning and new build
Domestic sector	Domestic energy advice provision
	Project delivery and support
Business sector	Business energy advice provision
	Local authority supply chains
	Support local installation businesses
Public sector	Local authority estate management
	Staff motivation and involvement
	Procurement
	Management of leases and land
	Resource sharing and co-ordination
	Education
Community sector	Promoting energy efficiency to communities
	Widen engagement with the voluntary sector

An action plan to take forward these priority areas is presented in chapter 8.

# TABLE OF CONTENTS

1		INTRODUCTION	4
	1.1 1.2	2 STAKEHOLDERS	5
	1.3		
	1.4		
2		CARBON EMISSIONS, ENERGY EFFICIENCY AND FUEL POVERTY	6
	2.1 2.2		
	2.3 2.4		
3		THE POLICY CONTEXT	9
	3.1		9
	3.2	2 INTERNATIONAL, NATIONAL AND REGIONAL TARGETS	9
	3.3		
	3.4 3.5		
4		VISION, TARGETS AND AIMS	
	4.1		
	4.2		
	4.4		
	4.5	5 Incorporating the per-capita $CO_2$ emissions indicator in Local Area Agreements	13
5		ASSESSMENT OF CURRENT PERFORMANCE	14
	5.1	DOMESTIC SECTOR	14
	5.2		
	5.3 5.4		
6	-	IMPLICATIONS OF AIMS AND LINKS TO PRIORITY AREAS FOR ACTION	
7		PRIORITY AREAS FOR ACTION	
1			
	7.1		-
	7.2		
	7.4		
	7.5	5 COMMUNITY SECTOR PRIORITY AREAS	24
8		ACTION PLAN	25
9		NEXT STEPS	31
10	)	CO-ORDINATION	31
11	I	MONITORING	31
12	2	APPENDIX 1: DOMESTIC, BUSINESS AND PUBLIC SECTOR SECTIONS OF THE LOCAL	
		CARBON MANAGEMENT MATRIX	33
13	3	APPENDIX 2: ENERGY USE AND CARBON EMISSIONS	38
14	ł	APPENDIX 3: THE POLICY CONTEXT	40
15	5	APPENDIX 4: THE DOMESTIC SECTOR	49
16	5	APPENDIX 4: THE BUSINESS SECTOR	59
17	7	APPENDIX 5: PUBLIC SECTOR	71
18	3	APPENDIX 6: COMMUNITY AND CHARITABLE SECTOR	75
19	•	APPENDIX 8: GLOSSARY	77

## 1 INTRODUCTION

In 2007, Dorset County Council, with funding from the local authorities of Dorset<sup>2</sup> and Government Office for the South West (GOSW) commissioned the Centre for Sustainable Energy (CSE), a national charitable company based in Bristol, to develop an Energy Efficiency Strategy and Action Plan for Bournemouth, Dorset and Poole. The Energy Efficiency Working Group of the Dorset Energy Group has steered the development of the strategy. (The Working Group comprises representatives from Dorset County Council; all of Dorset's district and borough councils; Poole and Bournemouth local authorities; Bournemouth & Poole and Dorset Primary Care Trusts; and the business and voluntary sectors.)

The Dorset Energy Efficiency Strategy forms the second component of a Climate Change Mitigation Framework, being taken forward by the Dorset Energy Group. The first component is the Bournemouth, Dorset and Poole Renewable Energy Strategy, which was published in 2005 and is currently being implemented. CSE was similarly involved in that process.

This Strategy includes the domestic, business, public (local authorities only), and voluntary sectors, and covers both energy efficiency and fuel poverty.

There is a growing awareness of the threat of climate change and the need to reduce emissions of greenhouse gases. At the same time, as energy prices rise, fuel poverty is becoming an ever more pressing issue. Improved energy efficiency is an effective means to tackle both of these threats and at the same time can help to cut domestic, business and public sector energy bills and reduce dependence on price-volatile imported energy.

There is a range of national and regional targets for carbon reduction (reflecting current scientific opinion on the level of greenhouse gas reduction necessary to avoid dangerous climate change) and the elimination of fuel poverty. The current rate of energy efficiency improvement (both nationally and locally) is not sufficient to meet these targets or to realise the cost-effective potential. **What is needed is a step-change in the rate of improvement.** For example, according to modelling undertaken for the South West's Low Carbon Housing and Fuel Poverty Strategy<sup>3</sup>, in order to achieve the required improvement in energy efficiency in the domestic sector, 4-5 times the current level of installation activity is needed.

A coherent strategy for action to improve energy efficiency and curb energy demand across Dorset is a key element of realising the potential within the county to reduce carbon emissions, eliminate fuel poverty, and save energy costs. The strategy is designed to deliver a step change; 'business as usual' is neither economically rational, socially beneficial nor environmentally necessary.

#### 1.1 How this strategy has been developed

This strategy has been developed from a Discussion Paper which was circulated to stakeholders in April 2008. The Discussion Paper presented a draft vision, targets and aims for the strategy, and an assessment of current performance on energy efficiency, from which priority areas for action were drawn.

The assessment of current performance was based on research undertaken by the Centre for Sustainable Energy in the preceding months. This research included desk research, interviews, and survey work. In addition, an important aspect of the research was the use of the Local Carbon Management Matrix, which is a self-assessment tool designed to help local authorities understand their influence on carbon emissions in their area<sup>4</sup>.

The Local Carbon Management Matrix is divided into different aspects of carbon management: here, the domestic, business and public sector were covered. A set of 'levers' where local authorities have an influence over  $CO_2$  emissions are identified, and each lever has four behavioural descriptions

<sup>&</sup>lt;sup>2</sup> When we refer to Dorset, this covers the traditional county area and so includes both the County Council area and the unitary authorities of Bournemouth and Poole.

<sup>&</sup>lt;sup>3</sup> <u>http://www.oursouthwest.com/lowcarbon/lchfp-strategy-and-action-plan-291106.pdf</u>, published in 2006

<sup>&</sup>lt;sup>4</sup> The Carbon Management Matrix was originally developed in 2006 for a project for Defra led by the Centre For Sustainable Energy.

which outline what would be happening if the local authority's performance was '*weak*', '*fair*', '*good*', or '*excellent*'. A copy of the Matrix used for this assessment can be found in APPENDIX 1.

All nine local authorities each completed a copy of the Matrix. The results of the Matrix selfassessments for each sector can be found in the appendix relating to that sector, and page references are given in the main text.

Stakeholders provided written feedback on the Discussion Paper and attended a consultation event in Wareham on May 22<sup>nd</sup> 2008 where they participated in workshops designed to gather their feedback on the suggested Vision, Targets, Aims, and Priority Areas for Action, and to begin developing an action plan. Stakeholder feedback was incorporated into the draft strategy which was then published in July 2008 and sent out for consultation to all key stakeholders for their comments. The feedback from this consultation has been considered carefully by the Energy Efficiency Working Group and incorporated, as appropriate, into this final version of the strategy for endorsement.

#### 1.2 Stakeholders

Local authority action is essential to effectively tackle climate change and fuel poverty. Local authorities are the lynchpin of local action, with the ability to identify local issues and put together partnerships to tackle them. National policy is to a great extent implemented via local authorities, which have direct contacts with households (including a legal obligation to improve households' energy efficiency), businesses and community groups. Therefore local authority buy-in and commitment to this strategy will be essential, and the majority of the actions are likely to be wholly or partially owned by local authorities.

However, the involvement of other stakeholders is also crucial to effective action. These include (amongst others) business advice providers, business associations, registered social landlords, and community groups.

#### 1.3 The status of this document

This is the final version of the strategy. It is being circulated to key stakeholders for endorsement by Spring 2009. Endorsement of this strategy will imply support for its vision and for the broad strategy laid out for achieving it, and agreement with any action points for which an organisation is identified. It does not imply support for all the action points in the plan, since the breadth of areas covered by the plan make that unlikely for many stakeholders. When the endorsement process is complete another copy of the final strategy will be published with a list of those organisations who have endorsed it (but with no further changes).

#### 1.4 The structure of this document

The main body of this document presents the strategy and action plan, covering:

- Context around carbon emissions, energy efficiency and fuel poverty;
- Key elements of the policy context;
- The vision, targets and aims of the strategy;
- An assessment of current performance of the key sectors domestic, business, public, community;
- Implications of the strategy's aims and how they link to the priority areas for action;
- A description of the priority areas for action;
- The action plan itself;
- A brief discussion of what the next steps should be, and how the implementation of the strategy will be co-ordinated.

The main body of this strategy has been kept brief in order to make it accessible to a range of stakeholders. More in-depth information on the policy context and the assessment of current performance is available in the appendices. This has been adapted from the discussion paper referred to in section 1.1, and relevant sections of the appendices are signposted where appropriate in the main text.

A glossary can be found in APPENDIX 8 on the final page of this document, page 77.

### 2 CARBON EMISSIONS, ENERGY EFFICIENCY AND FUEL POVERTY

#### 2.1 The use of carbon emissions to measure energy efficiency

The focus of this strategy is to reduce energy demand by making sure that energy is used as efficiently as possible and is not wasted.

Carbon emissions, rather than GWh or other measures of energy consumption, are used as indicators throughout this strategy. However, this strategy is not, of itself, a carbon reduction strategy, but is one of three documents which together form a Climate Change Mitigation Framework for Bournemouth, Dorset and Poole. The other documents are the Bournemouth Dorset and Poole Renewable Energy Strategy and the Rural Dorset and South East Dorset Local Transport Plans.

As this Energy Efficiency Strategy forms part of the Climate Change Mitigation Framework, it makes sense to measure its impact in terms of carbon reduction. Different energy sources produce different amounts of carbon dioxide for the same amount of useful energy delivered, and so it is preferable to reduce demand for the more carbon intensive energy sources first.

APPENDIX 2 on page 38 gives a comparison of different energy sources' contributions to carbon emissions in Dorset, compared to their contribution to the total amount of energy consumed.

Although not all carbon emissions originate from energy use, metered electricity and gas account for 63% of the county's carbon emissions while oil (not including transport), coal and manufactured solid fuel use is responsible for approximately a further 7%<sup>5</sup>. Therefore energy efficiency is the most effective way of reducing carbon emissions. It is also the cheapest as its costs are offset by savings on energy bills.

#### 2.2 Current carbon emissions

Defra publishes carbon emissions data for every local authority in the UK. The latest year for which this is available is 2006, which is shown in Table 1<sup>6</sup>.

<sup>&</sup>lt;sup>5</sup> www.defra.gov.uk/environment/statistics/globatmos/galocalghg.htm

<sup>&</sup>lt;sup>6</sup> <u>www.defra.gov.uk/environment/statistics/globatmos/galocalghg.htm</u>

Thousand tonnes of carbon dioxide in 2006	Industry and Commercial	Domestic	Road Transport	LULUCF*	Total	Population Thousands	Per capita Total CO <sub>2</sub> (tonnes)	NI186 per capita CO <sub>2</sub> emissions (tonnes)**
Bournemouth	329	413	167	0	909	161	5.6	5.6
Christchurch	95	118	77	0	290	45	6.4	6.4
East Dorset	170	247	175	-12	580	85	6.8	7.0
North Dorset	146	184	122	6	458	67	6.9	6.8
Poole	439	356	164	0	959	137	7.0	7.0
Purbeck	184	128	128	-9	431	45	9.5	9.7 <sup>7</sup>
West Dorset	256	282	273	40	849	96	8.8	8.4
Weymouth and Portland	91	152	61	2	306	65	4.7	4.7
TOTAL B, D & P	1,710	1,878	1,167	28	4,783	701	6.8	6.8
Percentage of whole	34.8%	37.5%	27.3%	0.4%				
			South Wes	st Average	Tonnes P	er Capita	8.3	
United Kingdom Average Tonnes Per Capita						8.8		

Table 1: Carbon emissions by local authority area

\*LULUCF is Land Use, Land Use Change and Forestry; see footnote<sup>8</sup>

\*\* For more information on NI186, see page 10.

The *Industry and Commercial* category includes both business and the public sector. This category also includes some 3,000 tonnes  $CO_2$  originating from sites covered by the European Union Emissions Trading Scheme (EU ETS). NI186 emissions exclude emissions covered by the EU ETS, emissions from motorway traffic, diesel railways, and net emissions from land use change.

Road transport is included in the table to give a fuller picture of sources of carbon emissions, but this strategy does not cover transport. The Rural Dorset and South East Dorset Local Transport Plans<sup>9</sup> should ideally aim to work towards the same carbon reduction target as that identified in this Energy Efficiency Strategy.

#### 2.3 What is energy efficiency?

Energy efficiency can be defined as the use of measures and technologies that reduce the amount of energy used to provide a particular service, for example heating a home or lighting an office. This also includes the elimination of energy wastage (for example, switching lights off when they are not needed).

The development of an Energy Efficiency Strategy was a key action of the Bournemouth, Dorset and Poole Renewable Energy Strategy. This is because if energy demand increases unchecked, in order to simply maintain the share of the total energy demand which is met by renewable energy, the rate of installation of renewable energy technology will also need to increase. Reducing the total energy demand makes it easier to supply a higher proportion of energy from renewable sources.

<sup>&</sup>lt;sup>7</sup> Purbeck's per capita emissions are disproportionately high because of high industrial sector emissions relative to the size of the population. This is due largely to the presence of BP's Wytch Farm operation, which is the second largest user of electricity in the whole of the South of England, (Heathrow airport is the first).

<sup>&</sup>lt;sup>8</sup> LULUCF is included in the table to give a fuller picture of carbon emissions locally, but emissions from this source are outside the scope of this strategy. LULUCF includes activities which both produce and remove atmospheric CO<sub>2</sub>. Emissions tend to be produced from soils and liming of soils, and are removed through forest growth. The 2006 estimates of net emissions from LULUCF are produced using dynamic models of change in stored carbon, based on land use change data. Examples of land use changes are areas of land newly forested, land converted to cropland, and land converted to settlements. It should be noted that the methodology for modelling this at local authority level is at an early stage of development. (For more information see AEA Technology (2008), *Local and Regional CO2 Emissions Estimates for 2005 - 2006 for the UK*, <u>http://www.defra.gov.uk/environment/statistics/globatmos/download/regionalrpt/local-regionalco2-report06.pdf</u>) <sup>9</sup> http://www.dorsetforyou.com/index.jsp?articleid=2579; http://www.dorsetforyou.com/index.jsp?articleid=379133

#### 2.4 What is fuel poverty?

A household is normally described as experiencing fuel poverty if more than 10% of its disposable income would need to be spent to provide adequate warmth in the home. Living in a cold damp home exacerbates the incidence of cold-related illness and is linked to the incidence of excess winter mortality.

When energy efficiency measures are installed in a home that is experiencing fuel poverty, the cost of delivering warmth reduces. Or to put it another way, the same amount of energy use provides more warmth in the better-insulated home. As a result, the household may use the same amount of energy as before, but now that amount of energy is sufficient to heat the home because less is wasted. Or the household may be able to keep warm with less energy use, depending on the measures installed, the type of housing and the needs of the household.

This means that while energy efficiency measures help to treat fuel poverty, treating fuel poverty is not necessarily synonymous with carbon reduction. However, programmes to increase the uptake of energy efficiency measures address both fuel poverty and energy efficiency, and overall, if not in every individual household, this will lead to a reduction in energy demand.

Table 13 on page 58, at the end of APPENDIX 4 shows estimates of the number of households in fuel poverty in each district and unitary authority. These range from 6.8% of private sector households in Poole to 19.6% at risk of fuel poverty in Weymouth and Portland.

# **3 THE POLICY CONTEXT**

#### 3.1 Introduction

The policy context around energy efficiency and fuel poverty is complex. It includes a number of targets and policies which drive and influence energy efficiency and a number of strategies within which energy efficiency should be included if its full potential is to be realised.

There are a large number of targets, policies and strategies that should be taken into account. The foremost principal national and regional drivers, which influence all sectors covered in this strategy, are covered here in the main body of the strategy. Further detail on the policy context is given in APPENDIX 3, where national policies influencing energy efficiency and local strategies which include (or should include) energy efficiency policies are described. All targets and policies are summarised in Table 5 to Table 9 in APPENDIX 3 (see page 43).

#### 3.2 International, national and regional targets

Nine separate targets for greenhouse gas/ carbon reduction have been identified (Table 5 in APPENDIX 3, page 43). The strongest and most influential target is that contained in the Climate Change Act, which requires an 80% cut from 1990 levels of greenhouse gases by 2050. As part of the Act, the Secretary of State is required to set 5-year carbon budgets, and is advised on this by the Committee on Climate Change, an independent body which was established as part of the Act. The Committee on Climate Change has recommended two targets for 2020, depending on the effort that other countries are making to reduce emissions:

- If there is no global climate deal to follow Kyoto, the UK should aim to reduce emissions of all greenhouse gases by 34% relative to 1990 (21% relative to 2005.) This is known as the interim target.
- If there is a global climate deal from 2012, the target should be a 42% reduction relative to 1990 (31% relative to 2005). This is known as the intended target.

The Secretary of State will set the carbon budgets no later than June 2009, and it is expected that the Committee on Climate Change's recommendations will be taken up. It is also expected that there will be a global agreement to follow the Kyoto Protocol.

Regionally, the South West Low Carbon Housing and Fuel Poverty Strategy has targets of a 26-32% reduction in the 1990 level of greenhouse gas emissions by 2020, and a 60% reduction by 2050. This was based on scientific understanding at the time and should ideally now be updated to match the targets in the Climate Change Act.

Eight targets have also been identified for fuel poverty and housing quality (Table 6 in APPENDIX 4, page 44). These can be divided into:

- 2010 targets (five targets), which focus on raising housing standards and eliminating fuel poverty in 'vulnerable' households<sup>10</sup>
- 2016 targets (three targets), which focus on raising standards and eliminating fuel poverty in all households

Three further relevant targets have been identified which do not fit directly into the above categories (Table 7). The most noteworthy is the South West Regional Housing Strategy target that 50% of new development in the South West should meet the requirements of the Code for Sustainable Homes (CSH) by 2016.

#### 3.3 Key national policies

Table 8 in APPENDIX 3 (page 46) summarises policies which are relevant but not target-based. Those of particular importance are described here.

<sup>&</sup>lt;sup>10</sup> Generally defined as being in receipt of one of the principal means-tested or disability related benefits.

#### 3.3.1 Local government performance indicators

New local government performance indicators were introduced in April 2008. Three of these deal specifically with carbon reduction and fuel poverty:

- NI 185 CO<sub>2</sub> reductions from local authority operations
   Local authorities will provide information on their energy use in a spreadsheet format. The
   indicator will show the percentage reduction in carbon emissions against a 2008-2009 baseline.
- NI 186 Per capita reduction in CO<sub>2</sub> emissions in the LA area

This will be based on data provided by Defra, using a 2005 baseline, which has already been published.

 NI 187 Tackling fuel poverty – people receiving income based benefits living in homes with a low energy efficiency rating

This is based on data provided by the local authority and measures the proportion of households on income related benefit for whom an energy assessment has been carried out.

Local authorities will be assessed against these indicators as part of the Comprehensive Performance Assessment (CPA), and, from April 2009, as part of the successor to the CPA, the Comprehensive Area Assessment (CAA)<sup>11</sup>. Local and Multi Area Agreements (LAAs and MAAs, see page 41 for definitions) will also be based on up to 35 of the new performance indicators.

#### 3.3.2 Planning policy

The Planning Policy Statement (PPS) on Planning and Climate Change (supplement to PPS1) states that all planning authorities should secure the highest viable standards of energy efficiency and carbon emissions reduction in enabling the provision of new homes, jobs, services and infrastructure.

The draft revised Regional Spatial Strategy (RSS) commits the region to reducing its greenhouse gas emissions in line with national targets (RSS policy SD2).

#### 3.3.3 Home Energy Conservation Act

Since 1995, the Home Energy Conservation Act 1995 (HECA) has required every UK local authority with housing responsibilities to implement cost effective measures. The Act includes a target for improving energy conservation in dwellings in England & Wales by 30% over a 10-15 year timeframe (from 1996 levels). The Government recently consulted on the future of HECA: it is considering several options, including repealing HECA.

#### 3.4 Other national policies

The policies described above are those of particularly strong importance to this strategy. The national indicators provide a driver to local authorities to expand their work on carbon reduction and fuel poverty; planning policy affects the efficiency of new build in all sectors; and the Home Energy Conservation Act has historically been a strong driver for local authorities' work on domestic sector energy efficiency. However there are many more policies at national and regional level which influence energy efficiency and fuel poverty in Dorset in one or more sectors covered by this strategy, including funding sources for different sectors, policies for new housing, and the Nottingham Declaration. Further details on these can be found in APPENDIX 3.

#### 3.5 Local policies

In addition to national and regional policies, there are a number of locally produced policies and strategies which include, or should include, energy efficiency. These include Local Plans / Local Development Frameworks; corporate plans; corporate policies; community strategies; Local Area Agreements; the Multi Area Agreement; Housing Strategies; Private Sector Housing Strategies; Fuel Poverty Strategies; and Climate Change Strategies. These are described in more detail in section 14.2. It should be noted that while these were correct at the time of writing, it is likely that this section will go out of date quickly and should therefore be viewed as a snapshot.

<sup>&</sup>lt;sup>11</sup> The CAA will focus not just on the performance of individual institutions and local authorities, but more widely, on outcomes for the area as a whole and its people, secured by local authorities working alone or in partnership.

### 4 VISION, TARGETS AND AIMS

The vision, targets and aims presented here were originally developed by CSE in discussion with the Energy Efficiency Working Group of the Dorset Energy Group. They were then tested through written responses to the Discussion Paper circulated in April 2008 and through discussion at the consultation event in May 2008.

#### 4.1 Vision

"For the people of Bournemouth, Dorset and Poole to work together to improve energy efficiency in our homes, communities and workplaces and cut our carbon emissions."

#### 4.2 Targets

#### 4.2.1 Carbon dioxide target

To achieve a 30% reduction in CO<sub>2</sub> emissions by 2020, relative to 2005, in line with national targets.

It is suggested that the target is achieved through the following milestones:

Year	% reduction from 2005	Total CO <sub>2</sub> emissions (tonnes)
2010	4%	4,657,709
2015	17%	4,031,255
2020	30%	3,404,800

The carbon dioxide reduction target is based on the national Climate Change Act intended target of a 42% reduction on 1990 levels of greenhouse gases by 2020 (equal to a 31% reduction on 2005 levels), and an 80% reduction by 2050. The Dorset Energy Efficiency Strategy therefore adopts the 2020 target of a 31% reduction on a 2005 baseline, but simplifies it to 30%.

This strategy does not cover transport, but the same target reduction would need to be applied to transport through the local transport plans, if the overall  $CO_2$  reduction target is to be achieved in Dorset.

Emissions per capita and per household will also need to be monitored. As population and household numbers are predicted to increase, the reduction per capita and per household will need to be greater than 30% in order to achieve a reduction of 30% in the county's overall carbon emissions. Using population projections and forecasts for the construction of new homes, the following indicative targets have been calculated based on reductions necessary to achieve a reduction of 30% in the total amount of emissions.

- **Per capita**: a 34% reduction by 2020, based on a 6% increase in population between 2005 and 2020<sup>12</sup>.
- **Per household**: a 39% reduction by 2020, based on a steady increase in the number of dwellings according to planned housing provision as outlined in the Secretary of State's Proposed Changes to the RSS, chapter 4<sup>13</sup>.

The carbon dioxide reduction target will be measured using the figures published annually by Defra; these are the same statistics that are used to measure the National Indicator 186 (per capita reduction in  $CO_2$  emissions). Currently these figures are published more than two years in arrears, but it is

<sup>&</sup>lt;sup>12</sup> Based on figures from Defra and the 2008 Dorset Data Book

<sup>(</sup>http://www.dorsetforyou.com/media/pdf/4/0/Dorset\_Databook\_2008.pdf)

<sup>&</sup>lt;sup>13</sup> http://gosw.limehouse.co.uk/portal/regional\_strategies/drss?pointId=109242#document-109242

hoped that in time the compilation of these statistics will be quicker and they should be available less than a year in arrears.

#### 4.2.2 Fuel poverty targets

The fuel poverty targets are based on national and regional targets as identified in section 3.2 (for more details see Table 6 on page 44). The target year is 2016, following national targets.

#### 1. To seek to eliminate fuel poverty in Bournemouth, Dorset and Poole by 2016.

2a. To work in partnership to achieve an average SAP rating<sup>14</sup> of 65-70 in the housing stock by 2016.

#### 2b. To ensure that there will be no dwelling with a SAP rating of 35 or less in Bournemouth, Dorset and Poole by 2016.

The first target represents the aspiration, while targets 2a and 2b provide a measurable indicator of progress towards that aspiration. SAP 35 has been chosen to form part of the second target because a SAP of 35 or lower leads to a failure on the Decent Homes standard. If this standard is changed (e.g. made progressively tighter over time), this target will need to be adjusted to reflect that.

The second target will be measured by drawing together information from all local authorities. Some work will need to be undertaken to ascertain the best sources of information for this and how up-todate it will be. Local authorities regularly undertake housing condition surveys, although there may be several years between one survey and another. Not all the surveys will be carried out in the same year so collating the results of surveys together will not provide an accurate picture for any one year, meaning that when progress towards targets is checked the information may be somewhat out of date.

#### 4.3 Aims

- 1. To create a high degree of awareness and community action on energy efficiency.
- 2. To make the most of the economic opportunity of improving energy efficiency in Bournemouth, Dorset and Poole.
- 3. To maximise the use of available resources within national programmes to achieve a step-change in energy efficiency improvement in the domestic sector and tackle fuel poverty in vulnerable households.
- 4. To encourage and facilitate a major increase in business energy efficiency.
- 5. For local authorities to reduce carbon emissions from their own building stock and activities, and take a leadership role to promote energy efficiency in the wider community.
- 6. To enable Bournemouth, Dorset and Poole to play their part in reducing greenhouse gas emissions and fuel poverty in line with national and regional targets.

<sup>&</sup>lt;sup>14</sup> The Standard Assessment Procedure, known as SAP, is the standard way to measure the energy performance of a dwelling, in terms of the annual energy cost of space and water heating. It is a scale ranging from 1 to 120, with 1 being the worst energy performance, and 120 being a dwelling which is a net energy producer

#### 4.4 The effect of current national programmes

The government expects that current national programmes should achieve a 20% reduction in CO<sub>2</sub> emissions by 2020, relative to 2005<sup>15</sup>. This assumes a certain standard of local level performance where applicable in national programmes. This standard is equal to 'good' performance on the Local Carbon Management Matrix (see APPENDIX 1 for details of the Local Carbon Management Matrix).

In order to achieve a 30% reduction by 2020, Dorset therefore needs to go beyond 'good' performance on the Local Carbon Management Matrix.

This strategy has been developed so that Dorset stakeholders can lead by example, but others must also play their part if the target is to be achieved – from Dorset citizens to national government.

#### 4.5 Incorporating the per-capita CO<sub>2</sub> emissions indicator in Local Area Agreements

Local authorities are being asked by national government to include the national indicator on per capita  $CO_2$  emissions in their Local Area Agreements.

Bournemouth, Dorset and Poole have already included per capita CO<sub>2</sub> reduction targets for 2010 in their Local Area Agreements, as follows:

	Per capita reduction by 2010/11, relative to 2005
Dorset County Council area	6.8% <sup>16</sup>
Bournemouth	6.8%
Poole	12%

The first 'refresh' of the Local Area Agreements will provide an opportunity to look at these targets in relation to the strategy target. Although the national indicator on carbon reduction is welcomed, there is a difficulty in understanding how local authorities' influence translates into a quantitative per capita reduction. Further technical guidance from government is needed on the interaction between sources of  $CO_2$  emissions and the likely impact of proposed actions. It is hoped that further guidance will be forthcoming from Defra in the near future.

<sup>&</sup>lt;sup>15</sup> This does not include the effect of decarbonisation of grid electricity, which is outside of Dorset's control.

<sup>&</sup>lt;sup>16</sup> The target for DCC is aligned to the draft Energy Efficiency Strategy target for business & domestic  $CO_2$  emissions. For simplicity savings are proportioned equally from 2005 - 2010/11. The DCC target also takes account of transport related emissions, which are predicted to grow over the period.

### 5 ASSESSMENT OF CURRENT PERFORMANCE

Research and analysis undertaken as part of the development of this strategy looked at current performance in all of the sectors covered by the strategy – domestic, business, public & community. The findings were detailed in the Discussion Paper that was circulated to stakeholders in April 2008. This section summarises the key findings of the assessment of current performance detailed in the Discussion paper.

The relevant sections of the Discussion Paper, with minor edits updating the text where further information has been received since its publication, can be found in the appendices, starting on page 49.

#### 5.1 Domestic sector

#### 5.1.1 Context

An analysis of current performance in the domestic sector can be found at APPENDIX 4. This section is a summary of that appendix. The box at the end of this section gives links to specific sections of the appendix where more detail can be found.

The domestic sector covers homes of all tenure types. This sector is responsible for 37% of all of Dorset's carbon emissions. The causes of these emissions are space and water heating, lighting, cooking, and use of appliances such as washing machines and televisions. Emissions from this sector can be reduced by improving the thermal efficiency of homes, for example by insulating walls and lofts; by making sure that people have efficient heating systems; and by encouraging people not to waste energy, for example by not leaving appliances on standby or by putting washing on the line instead of in the tumble dryer. The first two of these (insulation and heating systems) are the areas where the greatest savings can be made, where fuel poverty can most effectively be tackled, and where Dorset stakeholders have the greatest role to play.

Bournemouth, Dorset and Poole together have a population of approximately 700,000, living in just over 300,000 households<sup>17</sup>; an average household size of 2.3 people. Just over a quarter of the population is over 60 (women) or 65 (men), which is significantly higher than the England and Wales average of 18.7%. Older people living in under-occupied homes are more likely to be suffering from fuel poverty due to a combination of low income and a relatively large home to heat.

According to the RSS, around 66,000 new dwellings should be built in Bournemouth, Dorset and Poole between 2006 and 2026. If each of these new dwellings produces half as many carbon emissions as existing housing, this planned increase in housing will lead to a 10% increase in domestic sector emissions in 2026, compared to 2005. This emphasises the importance of making sure that new housing is as energy efficient as possible.

Within the existing housing stock, around 22% of homes in Dorset have solid walls, while 12% are not able to access the gas network. Solid walls are more expensive to insulate, while a lack of access to gas means that a more expensive and carbon intensive alternative is usually used (electricity, coal or oil). Solid walled, off-gas homes are often termed 'hard to treat' as it is more expensive (relative to cavity walled homes with access to gas) to improve them so that they provide a good standard of thermal comfort at reasonable cost. Listed buildings (which are normally solid-walled) present additional challenges as there are restrictions on the measures that can be used to improve their energy efficiency.

Dorset is not unusual in its numbers of hard to treat properties. Within the South West, Cornwall, Devon, Somerset, and Wiltshire all have higher proportions of solid walled and off gas properties. A high proportion of hard to treat properties is not necessarily a barrier to increasing the amount of activity on improving the efficiency of the housing stock, as shown by Cornwall, which has made significant progress. In Dorset the hard to treat housing stock is unevenly distributed between local authority areas, with some areas having a large number of hard to treat properties and others having few.

<sup>&</sup>lt;sup>17</sup> See Table 13 on page 58. There are 333,419 dwellings, but only 90% are occupied.

#### 5.1.2 Assessment of current performance

The current situation is far from lacking in activity, but if a step change improvement in energy efficiency is to be achieved and this strategy's targets met, there needs to be much closer coordination between local authorities and other stakeholders (something that is now beginning to happen) and activity needs to be scaled up greatly. A higher level of national funding is now available in the form of an obligation on energy suppliers to fund energy efficiency improvements (the Carbon Emissions Reduction Target, CERT). Nationally, CERT and Warm Front (the government's main grant scheme for fuel poverty) together are estimated to be worth £2.3 billion over the next three years.

Regionally, the way domestic energy advice is provided is changing. Instead of the current system of five separate Energy Efficiency Advice Centres (EEACs), the Energy Saving Trust (EST) will fund one regional advice provider for the South West, with greater funding available.

Dorset stakeholders need to be prepared to take advantage of the enormous opportunity offered by the higher level of funding and the new approach to the delivery of energy advice. In order to meet this strategy's carbon reduction targets it is essential that there is a step change in the level of activity within the domestic sector. The opportunity is available to achieve that, with concerted action on the part of all stakeholders.

The South West Low Carbon Housing and Fuel Poverty Action Plan found that for the region's domestic sector to meet its share of national carbon reduction targets, installation rates for energy efficiency measures needed to be increased by a factor of 3.5 to 4, which in turn meant a threefold expansion in the number of households receiving energy advice and a twofold increase in the number of households which take action after receiving advice.

#### Links to further information in APPENDIX 4: The Domestic Sector

Domestic sector carbon emissions: p.49

Characteristics of the domestic sector: p.50

Hard to treat homes: p.50

Current and future spending on energy efficiency: p.52

Energy advice: p.53

Assessment of local authorities' current performance on domestic energy efficiency: p. 54

Current programmes and projects to support the domestic sector: p. 55

Key figures on the domestic sector: p.58

#### 5.2 Business sector

#### 5.2.1 Context

While there is no data which shows the emissions of the business sector alone, the 'Industrial and Commercial' sector, which in this data set actually includes public sector buildings such as hospitals, is responsible for 35% of Dorset's carbon emissions.

An estimate of the contributions to carbon emissions from different business types can be found in the appendix, section 16.2 (page 59). This suggests that the top five business sectors in terms of carbon emissions are finance, secondary industries (i.e. extraction), energy & water provision, business services, and distribution & retail.

#### 5.2.2 Assessment of current performance

An assessment of current performance in the business sector can be found at APPENDIX 5. The analysis of current performance is concentrated on local authority performance and the current provision of business advice.

The key conclusion for local authority performance was that although business energy efficiency is recognised as something to be supported by local authorities, there is not generally a clear plan of action when it comes to the business sector.

In terms of advice provision, the analysis identified a number of barriers to uptake of business energy efficiency advice, including confusion among businesses about where to go for support and a lack of awareness among businesses about the potential cost savings that they could make by improving their energy efficiency. It also identified a number of opportunities, for example more collaboration between advice providers. Nationally, the provision of business advice is changing, driven by the Business Support Simplification Programme (BSSP), which will position Business Link as the portal for all business advice (see p.61 in the appendices for more information). This change is being reflected regionally. The RDA, through the EU competitiveness fund, is putting in place a programme of environmental business support, which will be delivered by Business Link. This will help to remove some of the barriers and to realise some of the opportunities identified by interviewees.

A key conclusion for business advice was that in order to reach the target carbon reduction in the business sector, the take up of business advice needs to be increased by a factor of 11. There is an opportunity, within the new BSSP structure and regional funded programme of environmental business advice, for Dorset to enhance the availability of energy efficiency advice to its own businesses.

#### Links to further information in APPENDIX 5: The Business Sector

Carbon emissions by business sector: p.59

Business advice: background: p.61

Interviews with business advice providers: p.62

Analysis of the increase needed in the provision of business energy efficiency advice: p.63

Assessment of local authority performance (text): p.63

#### Assessment of local authority performance (table): p.65

Details of advice services covering energy efficiency which are available to Dorset businesses: p.66

#### 5.3 Public sector

#### 5.3.1 Context

Local authorities own a huge variety of buildings. As well as offices, they have buildings such as multi storey car parks, crematoria, leisure centres, sports stadiums, care homes, schools, town centre complexes, public toilets, pumping stations, ferry terminals, plant nurseries, tourist information centres, libraries, magistrates courts, and hotels. (Bournemouth and Poole unitary authorities also own council housing, but for the purposes of this strategy, this comes under the domestic sector). Some of these buildings are particularly high energy users (e.g. leisure centres). The Carbon Trust estimates that UK local authorities together spend approximately £750 million on energy annually, resulting in emissions of over 25 million tonnes of  $CO_2$  each year.<sup>18</sup>

Dorset local authorities emit more than 43 thousand tonnes of  $CO_2$  annually, which is 0.88% of total emissions. The scale of emissions varies greatly between authorities, from 164 tonnes (Purbeck) to 21,066 tonnes (Dorset County Council). While this 0.88% is a relatively small amount, it is a source of emissions over which local authorities have direct control. By taking control of their own energy use, local authorities can save money and set an example for households and businesses.

#### 5.3.2 Assessment of current performance

An analysis of current performance in the public sector can be found at APPENDIX 6. Dorset County Council, Purbeck, Poole and Weymouth and Portland have worked with the Carbon Trust (with Dorset County Council, Purbeck, and Poole participating in the *full* Carbon Trust Local Authority Carbon Management Programme; West Dorset and North Dorset are planning to take part in 2009/10). In addition Bournemouth and Poole are working with the Energy Saving Trust. Weymouth & Portland have also worked with the Carbon Trust. The other authorities noted that while staff are interested in taking part in some kind of carbon management programme, the required senior level interest is lacking or sufficient staff time is not available.

<sup>&</sup>lt;sup>18</sup> The Carbon Trust, Local Authorities Sector Overview, p.4

http://www.thecarbontrust.co.uk/publications/publicationdetail?productid=CTV028 Tonnes of carbon are converted to carbon dioxide by multiplying by (44/12).

In general, authorities have energy saving plans in place but few targets. The level of senior support varies across the group of nine local authorities. Funding for energy efficiency is available in some form in all authorities, but it is not normally ring-fenced and can be part of an overall maintenance budget. In terms of monitoring, most authorities collect some data on energy use, but in some cases there is no reporting back to users or budget holders.

#### Links to further information in APPENDIX 6: The Public Sector

Estimated direct CO<sub>2</sub> emissions from local authority buildings: p.71

Assessment of current local authority performance (text): p.72

Assessment of current local authority performance (table): p.73

Local authorities' existing energy conservation programmes: p.74

#### 5.4 Community sector

#### 5.4.1 Context and assessment of current performance

While community and charitable sector groups' direct  $CO_2$  emissions are not known, they are likely to be small compared to the other sectors. Most community and charitable sector groups lease buildings rather than owning them, which limits the steps they are able to take to reduce energy use. The exceptions to this are village halls and churches, which do own their own buildings.

However, whether they own their own buildings or not, community and charitable sector groups have extensive contact with the wider community. This makes them well placed to influence the carbon emissions of others.

Those groups that own their own building can use it as an example of energy efficiency best practice, and there are groups within Dorset that have recently built, or are currently planning to build, very energy efficient community buildings. Groups that do not own their own buildings can use their contacts within the community to disseminate energy efficiency advice. However, this sector is extremely pressed for resources and needs support to realise the potential opportunities.

An analysis of current performance in the community sector can be found at APPENDIX 7.

#### Links to further information in APPENDIX 7: The Community Sector

Survey of the community sector: p.75

Barriers and opportunities: p.76

### 6 IMPLICATIONS OF AIMS AND LINKS TO PRIORITY AREAS FOR ACTION

#### Aim 1: To create a high degree of awareness and community action on energy efficiency

There is a need to make all people in Bournemouth, Dorset and Poole and their local communities aware of climate change, the need to reduce  $CO_2$  emissions, and energy wastage. It is equally important to involve people and communities in the solutions to these issues.

The priority areas linked to this aim are the overarching priority area, O3 (Publicity and networks), and the community sector priority areas C1 (Promoting energy efficiency to communities) and C2 (Widen engagement with the voluntary sector).

# Aim 2: To make the most of the economic opportunity of improving energy efficiency in Bournemouth, Dorset and Poole

For households, lower spending on energy resulting from energy efficiency means more money to spend on other things. For businesses, lower overheads mean they are more competitive. This is one aspect of the economic benefit of increased energy efficiency.

Another aspect is that increased installation of energy efficiency measures presents opportunities for local installation businesses and other businesses that could diversify into installation. Local businesses should therefore be supported to enable them to take advantage of the opportunities offered by increased installation of energy efficiency measures.

Grants for renewable energy in a home or community building often also require energy efficiency measures to be installed before the grant is given.

The priority area that directly results from this aim is B3 (Support local installation businesses). However all of the priority areas contribute, directly or indirectly, towards savings on energy bills for all sectors.

# Aim 3: To maximise the use of available resources within national programmes to achieve a step-change in energy efficiency improvement in the domestic sector and tackle fuel poverty in vulnerable households

The larger scale of funding for domestic energy efficiency now available from utilities presents an opportunity for Dorset to really scale up its activity. While some of this funding will be used in Dorset regardless of what is done locally (because it is promoted nationwide by some organisations), it will only flow into Dorset at a substantial level if there is concerted activity to develop programmes to use it. Dorset local authorities and partners working together in concert can leverage more of this funding.

Both of the domestic sector priority areas contribute to this aim. D1 (Domestic energy advice provision) contributes because advice provision not only consists of telling people how to save energy but also includes referral to grant schemes, and so increased advice provision should result in higher uptake of grant schemes. D2 (Project delivery and support) is about extending installation programmes, which will require the use of funding coming from national programmes such as Warm Front and CERT.

#### Aim 4: To encourage and facilitate a major increase in business energy efficiency

Regional advice services and national sources of funding are available to businesses (normally in the form of loans rather than grants). Dorset businesses need to become more aware of these sources of help. They also need to believe that they are worth taking up, as one reason businesses may not take action to become more efficient is that they are not aware of the cost savings they can make.

Priority area B1 (Business energy advice provision) is relevant here, as is B2 (Local authority procurement), which is about local authorities encouraging the businesses that supply services to them to be more efficient. (The third priority area for business is about supporting businesses to take advantage of opportunities resulting from others becoming more energy efficient, and so fits better with aim 3).

# Aim 5: For local authorities to reduce carbon emissions from their own building stock and activities, and take a leadership role to promote energy efficiency in the wider community

While emissions from local authorities' buildings are a small proportion of the whole of Dorset's emissions, they represent an area over which local authorities have direct control. Inevitably local authorities will be driving this strategy, and so they need to lead by example by paying attention to their own energy efficiency performance.

Actions could be extended to other public service providers, thereby reducing energy use and carbon emissions in the county further. Organisations could include the Primary Care Trusts; the Prison Service; Dorset Fire and Rescue Service; the MoD; and local education providers (including churches, as nearly half of Dorset's schools are church schools).

All five of the public sector priority areas are relevant here: increasing the efficiency of an authority's own estate (P1); motivating staff to save energy at work (P2); procuring efficient equipment (P3); locking in energy efficiency when selling or leasing property (P4); and sharing information with others (P5).

# Aim 6: To enable Bournemouth, Dorset and Poole to play their part in reducing greenhouse gas emissions and fuel poverty in line with national and regional targets

There are national and regional targets around both greenhouse gas emissions and fuel poverty, and this aim is included to show that the Bournemouth, Dorset & Poole Energy Efficiency Strategy is not happening in isolation. This aim reflects the importance of meeting the targets identified in this strategy, which are themselves based on the regional and national targets.

All priority areas are relevant here, as they are ultimately about achieving this aim.

The links between the aims and the priority areas for action are summarised in Table 2 below<sup>19</sup>:

Aim	Priority area for action
Aim 1: To create a high degree of awareness and community action on energy efficiency	O3: Publicity and networks C1: Promoting energy efficiency to communities C2: Widen engagement with the voluntary sector
Aim 2: To make the most of the economic opportunity of improving energy efficiency in Bournemouth, Dorset and Poole	B3: Support local installation businesses (Also, indirectly, all priority areas)
Aim 3: To maximise the use of available resources within national programmes to achieve a step- change in energy efficiency improvement in the domestic sector and tackle fuel poverty in vulnerable households	D1: Domestic energy advice provision D2: Project delivery and support
Aim 4: To encourage and facilitate a major increase in business energy efficiency	B1: Business energy advice provision B2: Local authority procurement
Aim 5: For local authorities to reduce carbon emissions from their own building stock and activities, and take a leadership role to promote energy efficiency in the wider community.	<ul> <li>P1: Local authority estate management</li> <li>P2: Staff motivation and involvement</li> <li>P3: Local authority procurement</li> <li>P4: Management of land and leases</li> <li>P5: Resource sharing and co-ordination</li> <li>P6: Education</li> </ul>
Aim 6: To enable Bournemouth, Dorset and Poole to play their part in reducing greenhouse gas emissions and fuel poverty in line with national and regional targets.	All Priority Areas

#### Table 2: Links between aims and priority areas for action

<sup>&</sup>lt;sup>19</sup> Overarching priority areas not shown in this table are considered to support all aims.

# 7 PRIORITY AREAS FOR ACTION

In this section priority areas for action are defined. Priority areas for action were identified as a result of the research and analysis that was carried out in the initial stages of development of this strategy, and refined as a result of the stakeholder consultation event.

Some 'overarching priority areas', which are relevant to more than one sector and support the delivery of other priority areas, are identified first, followed by sectoral priority areas for action.

#### 7.1 Overarching Priority Areas

#### PRIORITY AREA O1: Strategic focus and institutional leadership

Energy efficiency in all sectors needs to have higher priority at a strategic level within local authorities and local strategic partnerships. The development of this strategy is an important first step. Higher priority at council member level and within LSPs can result in more resource being dedicated to domestic energy efficiency; a higher priority for business energy efficiency; greater resources being dedicated to energy management within the public sector; and the inclusion of energy efficiency objectives within the work that local authorities and others do with the voluntary sector.

One action under this priority area is the establishment of a sustainable energy network for councillors, which would encourage and support key councillors within each authority to become sustainable energy 'champions'.

#### PRIORITY AREA O2: Resources

A common issue which arose in the Local Carbon Management Matrix self assessments was a lack of resources, in particular officer time and associated budgets for domestic energy efficiency and energy management of local authorities' own estate.

In terms of public sector energy management, the rule of thumb is that for every annual £1 million of energy spend, one full time energy manager should be employed<sup>20</sup>, and that a fixed proportion of the cost savings achieved through better energy management should be reinvested in further measures – if 100% of the cost savings are reinvested, further financial and carbon savings will be achieved more quickly.

Smaller local authorities will have energy bills of less than £1 million annually, but all of these authorities added together will have an annual bill in excess of this. Therefore there would be advantage in all of these authorities sharing an energy manager between them, or paying a larger authority for the time of one of its energy managers.

#### **PRIORITY AREA O3: Publicity and networks**

One of the aims of this strategy is to create a high degree of awareness and involvement of the domestic, business, public and community sectors. To do this it is necessary to have a comprehensive, ongoing programme of publicity, so that the wider community of Dorset is aware that the county wants to achieve a step-change in energy efficiency. Also important is the engagement of all local networks and partnerships that have the potential to support the implementation of this strategy. At the same time, the message which is being communicated should be consistent, whichever partner it comes from.

#### **PRIORITY AREA O4: Planning and new build**

Approximately 66,000 new dwellings are planned to be built in Dorset between 2006 and 2026. Although the building regulations will ensure that these homes are more energy efficient than the existing housing stock (providing the regulations are effectively enforced), strong policies relating to the energy efficiency of these dwellings will be necessary to make sure that energy use in additional future housing does not wipe out the benefits of efficiency gains made in the existing housing stock. For example, if each new home produces on average half as many emissions as the current average

<sup>&</sup>lt;sup>20</sup> Chartered Institute of Building Services Engineers, Guide F, *Energy Efficiency in Buildings* 

home in Dorset, the planned increase in housing could lead to a 10% increase in domestic sector emissions by 2026.

In the business sector, the specification of commercial buildings constructed today has an impact on energy use and carbon emissions well into the future.

Therefore it is important to increase the profile of energy efficiency within planning policy, development control, and building control departments. Policies in current local plans are not strong, but Local Development Frameworks are in development which should include stronger policies in Local Development Documents and an evidence base to back up policies.

Strong policies are no use if they are not enforced, and so ensuring effective enforcement is key.

This priority area has been entitled 'planning and new build' because building control does not always fall within planning departments and can be undertaken by private companies.

#### 7.2 Domestic Sector Priority Areas

#### PRIORITY AREA D1: Domestic energy advice provision

Homeowners, tenants and landlords need good quality, impartial advice about the energy efficiency measures that are possible in their property, the grants that are available, and the costs and benefits of different measures. The expansion of provision of this advice is vital if the potential for carbon reduction in the domestic sector is to be realised.

The regional changes in the provision of energy advice provide an opportunity for local authorities to be clear about what they require from an advice provider. In addition local authorities need to be consistently engaged with the advice provider, providing funding and taking part in joint promotions.

A key area is the provision of good advice to those who do not qualify for grant schemes but who can afford to install measures – to inform them of potential measures, likely costs, likely savings, and reliable installers. Without this inclusion of 'able to pay' households, carbon reduction targets will not be met. In some local authority areas up to 20% of households are at risk of fuel poverty (and therefore more likely to qualify for energy efficiency grants). This leaves 80% of households that are not at risk of fuel poverty, but who still need to be targeted if the required carbon reduction is to be achieved.

#### **PRIORITY AREA D2: Project delivery and support**

To achieve a step change, there is a need to ramp up delivery of both advice and installation of measures, and this requires projects and co-ordination of delivery. National availability of funding for measures in the form of Warm Front and CERT funding provides an enormous opportunity to harness the potential for carbon reduction in the county, but this needs to be channelled to Dorset households.

A range of partners should be involved in a co-ordinated effort to maximise take-up of available grants and installation schemes and to develop new schemes, leveraging maximum funding. The location of this work could be an energy advice provider supported by local authorities. It is obvious that the more widely publicised, widely available and 'user-friendly' these schemes are, the higher the take up will be.

An action to focus on hard to treat properties is included here<sup>21</sup>. Hard to treat properties must be tackled if fuel poverty is to be eliminated. In terms of carbon reduction, while cheaper, 'quick-win' carbon savings will come from standard efficiency measures in non-hard to treat housing, the carbon reduction targets will not be met by savings from this source alone, and so there is a need to start working towards ways to tackle hard to treat housing. In this way, when the quick win carbon savings have been achieved, the preparation for achieving the 'not-so-quick' wins will have been done, and those savings can be taken up without delay.

<sup>&</sup>lt;sup>21</sup> 'Hard to treat' refers to dwellings which have limited opportunity for conventional energy efficiency measures; normally solidwalled properties away from the gas distribution network.

#### 7.3 Business Sector Priority Areas

#### PRIORITY AREA B1: Business energy advice provision

As with the domestic sector, the provision of advice is vital for reaching the business sector. Grant funding is not available for business energy efficiency as it is for domestic energy efficiency, but free and subsidised advice is available. Support such as provision of on-site surveys is offered for some types of businesses, such as SMEs and businesses with very high energy bills. There are several advice providers active on business energy efficiency in the county and businesses can be confused about where to go for advice. This is, however, being addressed through the positioning of Business Link as the portal for all types of business advice.

With an overall  $CO_2$  reduction target for the county of 30% by 2020 and an assumption that all sectors make an equal contribution to emissions reduction, then the coverage of business advice needs to increase by a factor of 11. Regional provision of business advice is changing and within this there will be an opportunity for Dorset to increase the availability of energy efficiency advice to local businesses.

Local authorities can begin to target specific local business networks and through Business Link help them to identify opportunities and funding. Those business types with the highest carbon emissions should be identified so that they can be targeted first. In addition it will be important to maximise opportunities to target businesses: for example, by using the forthcoming 2012 Olympic Games, which aims to be the greenest ever, as a vehicle to promote energy efficiency to businesses likely to benefit from the Games, for instance the hospitality industry.

Currently some but not all advice providers collect information on the carbon savings achieved by advice provision to businesses. More detailed monitoring of outcomes should be undertaken in future, in order for advice provision to become more effective.

#### **PRIORITY AREA B2: Local authority supply chains**

Local authorities procure a range of goods and services through local businesses and this relationship provides one of the strongest levers for local authority influence on business energy efficiency.

Local authorities can require the local businesses that provide them with goods and services to operate in an energy efficient manner. Tendering processes should include requirements for minimum energy performance standards from suppliers. Local authorities could also ask their suppliers to contact an advice provider to help them find ways of reducing their energy use and ask suppliers to report back on where they have implemented recommendations.

Local authorities also sometimes procure services from third sector organisations, and so actions under this priority area could influence the third sector as well as the business sector.

Putting the correct procurement policies in place takes time and requires a high level of senior support, but once policies are in place this provides a very strong lever for local authorities to influence the energy efficiency and carbon emissions of local businesses.

The County Council has a sustainable procurement policy in place which will provide a good starting point for this work. The County Council works formally with the district councils through the Dorset Procurement Partnership. Bournemouth and Poole unitary authorities, the Dorset Police, the Dorset Fire and Rescue Service, the Dorset Primary Care Trust and Kingston Maurward College are also members of the Dorset Procurement Partnership. The proposed Dorset Pathfinder Shared Services for Procurement will also support this priority area.

#### **PRIORITY AREA B3: Support local installation businesses**

Increased installation of energy efficiency measures presents opportunities for local businesses. Therefore this strategy includes the aim of supporting local businesses to take advantage of the opportunities offered by increased activity.

#### 7.4 Public Sector Priority Areas

#### **PRIORITY AREA P1: Local authority estate management**

The most direct way a local authority can take action to reduce  $CO_2$  emissions is the use of building management techniques to reduce energy use in its own buildings. For those local authorities that are responsible for school buildings, energy use in schools is an important aspect of this. Although energy conservation measures have an initial capital cost, they result in overall savings, often paying back the initial cost very rapidly. The existence of dedicated resources for building energy management facilitates a strategic approach, as opposed to opportunistic ad-hoc work when money becomes available. Monitoring of energy use is vital if a targeted approach to reducing emissions is to be taken. In addition, feeding back information on energy use to building users can help staff to make the link between their own actions, the local authority's energy costs, and carbon emissions.

The best way that local authorities can begin to take action to reduce energy consumption throughout their estate is to sign up to the Carbon Trust's Carbon Management Programme or the Energy Saving Trust's 121 Programme for local authorities.

#### **PRIORITY AREA P2: Staff motivation and involvement**

As well as the technical aspects of reducing building energy use described above, staff behaviour also has an influence on energy consumption. Making staff aware of how their behaviour can reduce energy use, motivating them to change their behaviour accordingly, and periodically reminding them of this, complements technical efforts to reduce energy use. It also signals to staff that energy efficiency is taken seriously throughout the organisation.

Actions under this priority area could be extended beyond staff, to include service users where applicable; for example, school pupils and their families.

#### **PRIORITY AREA P3: Procurement**

A constant improvement in the quality of equipment, in terms of energy efficiency, is the third direct way in which local authorities can reduce their energy use. Research undertaken for the development of this strategy found that six of the Dorset local authorities have only basic energy efficiency standards for new equipment or none at all. Tightening of these standards will reduce energy use over time as the stock of equipment turns over.

The proposed Dorset Pathfinder Shared Services for Procurement will help to address this priority area.

#### PRIORITY AREA P4: Management of leases and land

As well as directly managing their own buildings, local authorities own other buildings and land that they lease to others. There is an opportunity for local authorities to put conditions on leases which require high levels of energy efficiency. In addition where local authorities sell land for development they can require the developer to build to a high standard of energy efficiency.

#### **PRIORITY AREA P5: Resource sharing and co-ordination**

Public sector energy management networks constitute a source of information and support which local authorities can draw on to improve the way their buildings are managed. A formal Dorset public sector energy managers' group should be established, with the aim of developing a joint approach to data management, staff involvement, procurement and identification of funding schemes.

#### **PRIORITY AREA P6: Education**

This encompasses schools, colleges and universities. There is an opportunity to improve the energy performance of school, college and university buildings, and also to reach the domestic sector via students, their families, and teachers. There is also a link with the voluntary sector here as many schools in Dorset are Voluntary Aided Schools.

#### 7.5 Community Sector Priority Areas

#### **PRIORITY AREA C1: Promoting energy efficiency to communities**

The networks established between community and charitable sector groups and the communities they operate in provide an opportunity to promote energy efficiency in communities. Community groups are short of time and money and so need appropriate support if they are to include energy efficiency in their activities. The benefits to them of doing so, in terms of their core work, need to be clear to them if they are to take action. The establishment of a community sector energy network will bring people together to share ideas and experience and identify energy saving opportunities<sup>22</sup>.

Community groups which have their own buildings, such as village halls and churches, can take direct action, installing measures within these buildings. In order to get started on this they would need support, perhaps in the form of a free or subsidized energy survey for the building. While the carbon savings from improving the efficiency of community buildings may not be high relative to the savings available from the domestic housing stock, it offers an opportunity to reach users of the buildings, providing the community with an exemplar of energy efficiency. Users of the building can then be provided with advice for improving their own home and in this way the final impact extends beyond the community building itself to the homes of community members.

Community groups which do not have their own buildings can promote energy efficiency by, for example, inviting speakers to their events or publishing articles in community papers. This could be facilitated by the development of a 'bank' of resources that can be used by community groups, such as a list of available speakers, pre-written articles for magazines, and so on.

Community networks can be an effective way to reach people who are living in fuel poverty and who may not otherwise find out about the help for which they may qualify.

#### PRIORITY AREA C2: Widen engagement with the voluntary sector

A survey of the community sector was undertaken for the discussion paper which preceded this strategy. Responses were overwhelmingly from groups involved with networks whose representatives were already participating in the development of the strategy. There is a need to reach out to other community groups in a more structured way. One way to do this is to contact community development workers, councils for voluntary service representatives, and managers of local partnerships, with the aim of engaging them, giving them ownership, and encouraging them to take action. Partnership working is very well developed in the community sector, and the implementation of this strategy needs to tap into that in order to reach the voluntary sector.

The voluntary sector also has a role to play in priority area P6, education, as many schools in the county are Voluntary Aided Schools.

<sup>&</sup>lt;sup>22</sup> The Community Action for Energy programme, which provides information, training and access to funding sources, could provide support to this network: <u>http://www.energysavingtrust.org.uk/cafe/welcome/</u>

# 8 ACTION PLAN

The action plan is shown in the tables on the following pages.

In the column, 'Who could do it?' a range of organisations that could be involved are shown. Potential lead organisations are shown in **bold**.

The action plan will cover a five year period. Through the strategy development process, priority areas for action have been identified, each of which has one or more actions attached. These are high-level, strategic actions, which through the implementation process may need to be broken down into more detailed actions. As the action plan is implemented, timescales will be assigned to the actions as appropriate. The action plan is a working document which will be reviewed and updated on an annual basis by the Dorset Energy Group and its associated working groups.

All of the actions should be thought of as being prefaced with the phrase 'subject to resources being available'. Many of the actions will only be possible if external sources of funding can be secured. However, as this strategy has already identified there are significant opportunities for Dorset to attract national funding opportunities. The exact resources required for individual actions and funding sources will be identified as part of the detailed action planning required to take forward the strategy.

The action plan is aimed at all local authorities in Bournemouth Dorset and Poole and other key stakeholders working together and implementing many activities jointly. For local authorities, some actions will be more relevant to some authorities than others (depending on their current performance, as shown in their matrix assessments). However, all local authorities and other stakeholders will need to work together to ensure good practice (where it exists) and learning is shared.

In addition to the actions shown here, individual local authorities should look at their own matrix assessments and consider where they should take action to improve their own individual performance. The matrix assessments should be undertaken again in three years' time to assess progress.

Page references for Local Carbon Management Matrix assessments:

Domestic sector: p.55

Business sector: p. 65

Public sector: p.73

Further detail on the Local Carbon Management Matrix: p.33

OVERARCHING PRI	OVERARCHING PRIORITY AREAS			
Priority Area	Actions	Who could do it?	Resources required and potential sources of funding	
O1. Strategic focus and institutional leadership	O1.1 Strengthen corporate level commitment to energy efficiency in all local authorities, Local Strategic Partnerships, and community partnerships in Bournemouth, Dorset and Poole. This should include strengthening the presence of energy efficiency in corporate and community plans and Local and Multi Area Agreements.	Energy Efficiency Working Group, Joint working across Dorset, Energy Saving Trust (EST) Advice Centre	Local authority staff time	
	O1.2 Establish a sustainable energy network for councillors, to encourage and support key councillors within each authority to become sustainable energy champions, covering both energy efficiency and renewable energy.	<b>Energy Efficiency Working</b> <b>Group</b> , Energy Saving Trust (EST) Advice Centre, Regen SW	Local authority staff time Council member time	
O2. Resources	O2.1 Within local authorities, allocate more officer time to energy efficiency work; for example HECA / private sector housing officers and facilities management officers.	Local Authority Senior Management	Funding for extra staff time	
	O2.2 Within local authorities, increase budgets available to officers working on energy efficiency and local authorities' own energy management.	Local Authority Senior Management	Funding (in the case of energy management, initial funding soon translates into cost savings)	
	O2.3 Local authorities shall act together to maximise the opportunity of securing available funding, on a regional basis, towards projects and financial assistance to help improve and promote energy efficiency in Dorset.	Local authorities	Local authority staff time	
O3. Publicity and networks	O3.1 Develop a communications plan for the strategy in order to raise awareness and stimulate action on energy efficiency with all key audiences.	<b>Energy Efficiency Working</b> <b>Group,</b> Joint working across Dorset local authorities and LSPs	Local authority staff time.	
	O3.2 Identify and contact all existing networks and partnerships that could be engaged in the implementation of the strategy.	<b>Energy Efficiency Working</b> <b>Group,</b> Joint working across Dorset local authorities and LSPs	Local authority staff time	
O4 Planning and new build	O4.1 Build on work already undertaken and planned as part of the renewable energy strategy to increase the capacity of local authorities to incorporate sustainable energy into the work of planning, development control and building control departments.	Dorset Energy Group, Renewable Energy Planning Policy Working Group (to expand its remit to include Energy Efficiency) Local authority planning & building control officers, Carbon Trust, Energy Saving Trust	Local authority staff time	

	O4.2 Ensure that energy efficiency and carbon reduction policies within Local Development Frameworks follow or go beyond best practice tailored to local circumstances, and are backed up by a delivery plan.	Dorset Energy Group's Renewable Energy Planning Policy Working Group ( to expand its remit to include Energy Efficiency), local authority planning officers	Local authority staff time
	O4.3 Increase the capacity for local authorities to promote energy efficiency in historic buildings	Dorset Energy Group's Renewable Energy Planning Policy Working Group ( to expand its remit to include Energy Efficiency), local authority planning officers, National Trust	Local authority staff time
	O4.4 Ensure that planning policies related to energy efficiency are effectively implemented.	Local authority development control officers	Local authority staff time
	O4.5 Work with building inspectors to explore whether there is scope to increase the effectiveness of energy efficiency standards (part L of the building regulations) beyond minimum legal requirements	Local authority building control officers, and private sector building control officers	Local authority staff time
DOMESTIC SECTOR			
Priority Area	Actions	Who could do it?	Resources required and potential sources of funding
D1 Domestic energy advice provision	D1.1 Review existing energy advice provision in the county to provide a co-ordinated service through local authorities, DEAC, the new Energy Saving Trust Advice Centre (ESTAC) and voluntary local advice providers, and through any other opportunities which are identified.	Local authorities, DEAC, EST Advice Centre, voluntary local advice centres, registered social landlords, primary care trusts, Dorset Climate Change Coalition	Staff and volunteer time
D2 Project delivery and support	D2.1 Extend and improve the delivery of local energy efficiency programmes, and develop new programmes, with a wide range of partners working in a co-ordinated manner.	Local authorities, DEAC, EST Advice Centre, voluntary local advice centres, utilities, registered social landlords, other partners.	Staff time, utility funding, Warm Front funding, EST funding, local authorities
	D2.2 Identify cost-effective ways to target more hard-to-treat properties and historic buildings and develop pilot programmes to do this.	Local authorities, DEAC, EST Advice Centre, voluntary local advice centres, utilities, other partners, local authority historic buildings / conservation officer, National Trust	Staff time, utility funding, and Warm Front funding. EST funding, local authorities Learn from best practice and pilots elsewhere in the country.

Priority Area	Actions	Who could do it?	Resources required and potential sources of funding
B1 Business energy advice provision	B1.1 Expand the uptake of business energy advice in the county, working with Business Link, county-wide business networks and LSPs.	Business Link, local authorities, Dorset FSB, Dorset Business business support networks, business associations, Carbon Trust, Energy Saving Trust. (Links to MAA).	Staff time. RDA funding and EU Competitiveness Fund
	B1.2 Work with regional bodies and Business Link to expand and enhance the available business advice offering on energy efficiency.	Local authorities, Business Link, Dorset FSB, Dorset Business, SW RDA, SW RA, business support networks, business associations. (Links to MAA).	RDA funding and EU Competitiveness Fund
	B1.3 Undertake feasibility study to ensure that future environmental business support programmes are effectively targeted to achieve a low carbon resource efficient economy in Dorset.	Local authorities, Business Link, Dorset FSB, Dorset Business, SW RDA, SW RA, business support networks, business associations. (Links to MAA).	Staff time. Possible funding Dorset local authorities, RDA.
	B1.4 Use the information derived from action B1.3 above to identify specific business types which have high carbon emissions and could be targeted for a co-ordinated promotion of business energy efficiency advice, and to assess the effectiveness of this action.	Local authorities, Business Link, Dorset FSB, Dorset Business, SW RDA, SW RA, business support networks, business associations,	To be determined by feasibility study
B2. Local authority supply chains	B2.1 Include minimum energy performance standards for suppliers in local authority procurement guidelines, and make sure guidelines are implemented. All local authorities should set these jointly.	Local authority procurement officers - Joint working across Dorset, Dorset Procurement Partnership. (Links to MAA).	Staff time
B3 Support local installation businesses	B3.1 Support the growth of local installation businesses and support other businesses to diversify into installation of energy efficiency measures.	Local authorities, business support networks, business associations, local businesses, Carbon Trust, Energy Saving Trust. (Links to MAA).	Staff time

	B3.2 Identify opportunities to ensure that when additional demand for energy efficiency measures is created (for example by increased CERT spending in the domestic sector), this demand is met by local businesses.	Local authorities, business support networks, business associations, local businesses, Regen SW, Energy Saving Trust. (Links to MAA).	Staff time
PUBLIC SECTOR PR	IORITY AREAS		
Priority Area	Actions	Who could do it?	Resources required and potential sources of funding
P1. Local authority estate management	P1.1 Local authorities that have not already done so should set up a resourced energy conservation programme that includes a mechanism to re-invest savings into further energy conservation measures. This can most effectively be done by signing up to the Carbon Trust Carbon Management Programme or EST 121 Programme for local authorities and commit the required staff time to do so. (As a result of this, a carbon management plan will be produced, and so no further actions around developing plans are included here).	Local authority staff - energy managers, property managers, sustainability, Carbon Trust, EST Advice Centre, EST 121 Programme	Staff time Carbon Trust loans and Salix for match funding of energy efficiency improvements recommended by plans, Energy Saving Trust
P2. Staff motivation and involvement	P2.1 Staff inductions and Continuing Professional Development should emphasise the importance of energy efficiency and give advice on how to reduce energy use at work.	Local authority staff - energy managers, property managers, sustainability officers, Carbon Trust	Staff time
	P2.2 Develop a programme of ongoing awareness-raising events for local authority staff, which should be co-ordinated between all local authorities so staff know it is a Dorset-wide initiative.	Local authority staff - energy managers, property managers, sustainability officers, Carbon Trust, EST Advice Centre	Staff time
P3. Procurement	P3.1 Develop jointly between all authorities energy efficiency standards for procurement of equipment.	Local authority procurement officers, Dorset Procurement, Pathfinder Shared Services for Procurement, Carbon Trust	Staff time
P4. Management of leases and land	P4.1 Develop strong policies regarding the inclusion of energy efficiency in the conditions that must be placed on local authority property (land / buildings) that is leased or sold to others.	Local authority officers - procurement, valuation & estates, Carbon Trust	Staff time
P5 Resource sharing and co-ordination	P5.1 Establish a formal Dorset public sector energy managers' group with the aim of developing best practice in energy management, learning from best practice elsewhere, and developing a joint approach to data management, staff involvement, procurement and identification of funding schemes.	Energy managers and property managers in local authorities, Primary Care Trusts, the Prison Service, Dorset Fire and Rescue Service, the MoD, and local further and higher education providers	Staff time

P6 Education	P6.1 Work with schools, colleges, and universities to encourage them to improve efficiency in their own buildings, for example by linking to the public sector energy managers' group described in P5.1.	Energy managers and property managers in local authorities, local further and higher education providers, Carbon Trust	Staff time
	P6.2 Work with schools, colleges and universities to encourage them to increase awareness of energy efficiency among staff, students and students' families. (For staff this could be done through actions similar to those described in P2. For students and their families this could link with actions in priority area O3, or a separate programme could be developed.)	Local further and higher education providers	Staff time
COMMUNITY SECTO	R PRIORITY AREAS		
Priority Area	Actions	Who could do it?	Resources required and potential sources of funding
C1. Promoting energy efficiency to communities	C1.1 Establish a community sector energy network.	<b>Councils for Voluntary Service</b> , Local authority staff, other community networks, volunteer energy centres, EST Advice Centre, CAfE	Staff time, volunteer time, funding for volunteer expenses, EST Advice Centre, CAfE
	C1.2 Develop a programme for provision of energy surveys, advice and funding, to community buildings, making sure that users are involved in all stages, and following up with domestic energy efficiency advice to users of the building.	<b>Councils for Voluntary Service</b> , Local authority staff, other community networks, EST Advice Centre, CAfE	Every Action Counts, CAfE, Staff time, volunteer time, funding for surveys and travel, EST Advice Centre, CAfE
	C1.3 Develop a 'bank' of resources for community groups to use to promote energy efficiency; e.g. a list of speakers.	<b>Councils for Voluntary Service</b> , Local authority staff, other community networks, volunteer speakers, EST Advice Centre, CAfE	Staff time, volunteer time, funding for volunteer expenses, EST Advice Centre, CAfE
C2. Widen engagement with the voluntary sector	C2. Engage community development workers, Councils for Voluntary Service representatives, partnership managers and others, to encourage them to get energy efficiency on the agenda of local community partnerships at district, town and parish level.	<b>Councils for Voluntary Service,</b> Local authority staff, other community networks	Staff time, volunteer time, funding for volunteer expenses

### 9 NEXT STEPS

This is the final version of the strategy. The next step is for key stakeholders to endorse the strategy by Spring 2009, with implementation, subject to the availability of resources to proceed from then onwards.

#### **10 CO-ORDINATION**

Currently the Dorset Energy Group exists to deliver the Bournemouth, Dorset and Poole Renewable Energy Strategy, with the Energy Efficiency Working Group steering the development of this Energy Efficiency Strategy. It is proposed that in parallel with the endorsement phase for the strategy, the structure and membership of the Dorset Energy Group should be reviewed to enable it to co-ordinate, support and monitor the strategy's implementation.

#### **11 MONITORING**

Monitoring of the implementation of the strategy will focus on the targets and the delivery of annual action plans, drawn from the five year action plan of the strategy. This will be co-ordinated by the Dorset Energy Group. Information about progress towards the targets should be made publicly available and perhaps included in regular press releases. It is not intended that there should be regular and detailed assessments of performance such as the one that formed the background to this strategy.

Progress in national government programmes for both carbon reduction and fuel poverty should be monitored so that national influences over emissions in Dorset can be discerned.

After the completion of the five year action plan it will be important that the strategy is reviewed and updated and a future action plan determined to ensure that the strategy's longer term targets are met.

# **APPENDICES**

12	APPENDIX 1: DOMESTIC, BUSINESS AND PUBLIC SECTOR SECTIONS OF THE	Ξ
	LOCAL CARBON MANAGEMENT MATRIX	.33
13	APPENDIX 2: ENERGY USE AND CARBON EMISSIONS	.38
14	APPENDIX 3: THE POLICY CONTEXT	.40
15	APPENDIX 4: THE DOMESTIC SECTOR	.49
16	APPENDIX 5: THE BUSINESS SECTOR	.59
17	APPENDIX 5: PUBLIC SECTOR	.71
18	APPENDIX 7: COMMUNITY AND CHARITABLE SECTOR	.75
19	APPENDIX 8: GLOSSARY	.77

# 12 APPENDIX 1: DOMESTIC, BUSINESS AND PUBLIC SECTOR SECTIONS OF THE LOCAL CARBON MANAGEMENT MATRIX

DOMESTIC ENERGY EFFICIENCY						
Lever	weak	fair	good	excellent		
OVERALL APPROACH	No real engagement with domestic energy efficiency	Some public commitment to energy/environment goals but limited action or strategic engagement	Senior strategic engagement with domestic energy efficiency with resourcing and 'champion' with power to act	Full engagement with effective cross-dept action, relevant strategic commitments, and several active staff		
Strategic engagement and resourcefulness	Minimal attention to energy efficiency within corporate plans and strategies	Broad commitment to importance of energy efficiency but no clear plan of action or resourced programme	Clear strategic focus (either as domestic energy efficiency or as part of climate change strategy). Feature of Community Strategy and LSP activity, with measurable targets for achievement. Understanding and use of range of powers (wellbeing, regulatory reform order, spend to save etc)	As 'good' plus targets at or in excess of Energy White Paper with local authority taking responsibility for leading delivery within community		
Own housing stock/social housing sector policies	Not on track to meet Decent Homes and no clear strategy for addressing	Planning to achieve Decent Homes	Setting higher thermal standards than Decent Homes with clear programme for achievement	As 'good' plus training and advice support for tenants and staff on efficient use of heating etc		
Private sector housing / HECA	Minimal HECA reporting	HECA strategy being followed with at least 2-day per week officer	Specific programmes to improve private housing, with grant regimes reflecting e.e. priorities. Full time officer	Strategic approach to private households with clear targets for improvement, partnerships for advice and delivery, and monitoring		
Planning policy and control	No reference to energy efficiency of new homes in LDF	Energy efficiency recognised as a factor in new homes but no wording to encourage exceeding building regs	LDF encourages high energy efficiency standards (beyond building regs) in new housing (no targets)	LDF sets targets for additional energy performance in new build housing (beyond building regulations)		
Building regulations enforcement	Little attention to Part L in building control activities	Part L assessment within building control but not high priority within enforcement	Part L assessment within building control a priority focus of enforcement activity	Systematic assessment and review of Part L aspects of plans and enforcement review of actual construction		

Regeneration / economic dev schemes	No recognition of potential role of home energy efficiency improvements in area renewal	Recognition of value of home energy efficiency improvements	Renewal/regeneration schemes actively seek projects delivering energy efficiency advice and improvements	Specific energy efficiency targets within renewal/regeneration schemes
Energy advice provision	Occasional distribution of EEAC materials	Distribute EEAC materials regularly and modest funding (<£5K)	Consistent support and engagement with local EEAC including funding, joint promotions, own staff training	As 'good' plus clear policy of training and supporting front-line staff in energy efficiency advice and signposting
Project support		Occasional funding into energy saving projects	Active and funded support for energy saving initiatives	Leadership or lead partner role within development of local energy efficiency exemplars and focused approach to securing funding (wellbeing powers, PSA targets etc)
Grant and e.e. delivery schemes (EEC, Warm Front etc)	Minimal signposting to schemes, on reactive basis	Reactive response to schemes to provide 'endorsement' and enable distribution of materials	Supporting/engaging with EEC schemes and Warm Front to promote locally increased take-up, with own funding schemes to 'fill in gaps' and action to incentivise take- up (e.g. council tax reduction)	Co-ordinated effort with wide range of partners (health, suppliers, EEAC, other local authorities etc) to maximise take-up of available grants and schemes with 'one-stop-shop' approach to signposting and delivery
Monitoring and reporting	Minimal attention to HECA monitoring	HECA monitoring with standard data management approach	As 'fair' with system for collecting data on measures installed	Database of all properties. Planned use of data to target future activities (e.g. GIS).
Communications, education and leadership	None	Strategic framework limited to standardised 'declarations' with occasional publicity on energy efficiency. Some engagement with sub-regional co-ordination	Clear and tailored corporate strategy with political buy-in to improve energy efficiency with regular publicity for activities	As 'good' plus sustained programme of training of councillors and staff (part of induction) and other key partners
Co-ordination of district-level activity and technical advice/support (county/ sub- regional partnerships)	No effective co-ordination between districts	Erratic engagement with sub- regional co-ordination, mainly reactive to third party efforts (e.g. LASP)	Active engagement with LASP programme/HECA fora, with sharing of technical advice and support and joint development of schemes (EEC, other grants) and strategies	Strong partnership approach across the sub-region with clear strategic goals and action plan to delivery them
Communications, education and leadership (county/ sub-regional partnerships)	No sense of potential role of county- level action or education	Occasional involvement on reactive basis to school energy education initiatives	Active encouragement for schools to engage with energy education	County-wide programme for schools energy education

LEVER	weak	fair	good	excellent
OVERALL APPROACH	No real engagement with business energy efficiency	Limited signposting to schemes	Integration of potential role in encouraging business improvement into other business services	Deliberate targeting of services for business on achieving energy efficiency improvements
Strategic engagement and resourcefulness	Minimal attention to energy efficiency within corporate plans and strategies	Broad commitment to importance of energy efficiency but no clear plan of action or resourced programme	Clear strategic focus (either as business energy efficiency or as part of climate change strategy). Feature of Community Strategy and LSP activity, with measurable targets for achievement	As 'good' plus targets at or in excess of Energy White Paper with local authority taking responsibility for leading delivery within community
Economic development and regeneration activities	No recognition of energy efficiency as economic development	Limited acknowledgement of energy efficiency as a factor in business performance	Emphasis given to opportunities to improve business efficiency through energy efficiency improvements as part of economic development and regeneration activities	Core focus of economic development activity to secure high efficiency standards in projects and activities and participating businesses
Planning policy and control	No reference to energy efficiency of new commercial buildings in LDF	Energy efficiency recognised as a factor in new commercial buildings but no wording to encourage exceeding building regs	LDF encourages high energy efficiency standards (beyond building regs) in new commercial developments (no targets)	LDF sets targets for additional energy performance in new commercial developments (beyond building regulations)
Building regulations enforcement	Little attention to Part L in building control activities	Part L assessment within building control but not high priority within enforcement	Part L assessment within building control a priority focus of enforcement activity	Systematic assessment and review of Part L aspects of plans and enforcement review of actual construction
Business advice provision (either direct or through support for 3 <sup>rd</sup> party)	No reference to energy efficiency within existing business advice services	Limited reactive signposting to Carbon Trust and other sources of business energy efficiency advice and support	Active promotion of business energy advice services and strong case made for action	Targeted involvement with local business networks to promote available services and identify opportunities and funding
Procurement	No attention to energy performance of suppliers within procurement	Acknowledgement of energy performance as factor within environmental management of suppliers but no standards or requirements	Procurement practices include minimum energy performance standards for businesses providing relevant services	Use of procurement practices specifically to drive energy efficiency improvements in businesses providing services
Communications and leadership	None relating to business energy efficiency	Limited promotion based on standard 'declarations'	Active engagement with business sector to encourage action	Strong leadership shown to business sector on climate change as core element of LSP

Co-ordination of district-level activity and technical advice/support	No effective co-ordination between districts	Erratic engagement with sub-regional co-ordination, mainly reactive to third party efforts (e.g. LASP)	5	Strong partnership approach across the sub-region with clear strategic goals and action plan to deliver them

	weak	fair	good	excellent
OVERALL APPROACH	No strategic approach to management of own energy use	Basic strategy in place but limited reach across organisation and limited resources applied	Clear strategy across council with savings targets, resources planned, understanding and use of funding powers and clear procurement objectives	Strong energy management approach, taking advantage of national schemes, funding powers, with effective monitoring and prioritisation of energy efficiency improvements in building management and equipment procurement
Strategic engagement and resourcefulness	No political interest in reducing carbon emissions in own buildings. No interest or plans to write an energy strategy and action plan	Signed up to Nottingham Declaration or made public commitment to climate change agenda. Activities underway to develop an emissions strategy and/or energy efficiency improvement plan for council's own estate	Energy strategy and action plan in place with progress towards CO <sub>2</sub> reduction targets for own energy use and buildings being made	Targets in excess of national targets with clear action plan to meet targets. (Long term ambition to achieve net zero carbon emissions excluding carbon off-setting)
Carbon management programme (Carbon Trust or equivalent)	Little awareness or interest in programme	Awareness and some officer interest but no senior level commitment to proceed	Participation in Carbon Trust LA Carbon Management Programme	Followed through strategies and actions planned in LA Carbon Management Programme, delivering savings and sustained programme of activity and monitoring
Staff motivation and involvement	Minimal energy efficiency training	Some energy efficiency training for some staff	Energy efficiency training included in induction and in re-fresher courses as part of coherent strategy	Departmental targets set and staff aware of their contribution towards the target. 'Energy champions' scheme in place with at least one champion per department. Incentives offered towards staff achieving targets
Dedicated resources	No dedicated resources	Some funding available but not ring fenced. Responsibility given to one person as part of another role	Ring fenced funding to spend on improving energy efficiency, but less than 10% of energy bill invested in improvements per annum. Ad hoc use of 'invest to save' and Carbon Trust schemes	As 'good' with strategic approach to funding and at least 10% of the council's energy bill being invested in energy efficiency per annum and staffing of more than 1 full time equivalent per £1m spent on energy bills

Own buildings energy management (incl. approach to Energy Performance in Buildings Directive)	Ad hoc integration of energy efficiency improvements during refurbishment but no systematic approach	Systematic consideration given to energy efficiency improvement during refurbishment	Clear prioritisation of energy efficiency investments in existing buildings and strong focus on energy performance during refurbishment and plant replacement	As 'good', plus plans in place to use EPB Directive to highlight energy performance with public display and link to staff awareness strategy
Monitoring of energy use & carbon emissions	Limited monitoring of building-specific energy use and no reporting to budget holders	Building-by-building energy use data available but not related to potential performance improvements in building and equipment	Detailed energy performance data held for each building and equipment uses, with clear reduction target monitoring and communication	As 'good' plus use of metering and data to provide feedback to energy users and target further reductions
Schools energy management	Left entirely to discretion of head teachers with no proactive support	Support and guidance on energy management provided to head teachers and/or bursars and/or caretakers	Clear energy management strategy and action plan for schools with prioritised funding support for improvements, training for key staff, and technical advice	As 'good' plus use of whole school approach to energy management with educational activities on sustainable energy
Procurement (equipment, buildings and refurbishment)	No energy performance consideration during procurement	Basic energy efficiency standards set for procurement but no strategic consideration of life-time costs	High energy efficiency standards set for all equipment and buildings procurement and active engagement with regional or sub- regional procurement activities to increase leverage and buying power	As 'good' plus use of procurement to drive higher energy efficiency standards in service providers
Sub-regional resource sharing and co-ordination	No effective engagement with experience beyond own organisation	Occasional liaison with other public sector energy managers	Effective sharing of energy management experience and resources within public sector energy manager network	Leadership role in public sector energy management with strong joint approach to data management, procurement, engagement with funding schemes etc.
Co-ordination of procurement activity	No effective co-ordination	Local buying consortium with basic energy efficiency standards	Co-ordinated approach to procurement with strong sustainability themes	Aggressive targets for sustainability within procurement partnership with drive to recruit additional members to increase influence and impact

# **13 APPENDIX 2: ENERGY USE AND CARBON EMISSIONS**

#### 13.1 Energy consumption

2006	Natural gas (GWh)	Petroleum products (GWh)	Electricity (GWh)	Renewables & waste (GWh)	Coal and manufactured fuels (GWh)	Total (GWh)
Bournemouth	1,544	691	793	1.2	6.0	3,035
Christchurch	393	354	218	0.9	2.1	968
East Dorset	740	930	347	5.7	27.1	2,048
North Dorset	464	716	301	3.9	10.7	1,496
Poole	1,464	962	750	9.2	31.7	3,216
Purbeck	373	642	351	1.9	5.5	1,374
West Dorset	647	1,468	507	8.4	16.5	2,647
Weymouth and Portland	499	280	244	0.9	3.7	1,028
Total	6,124	6,042	3,511	32.1	103.2	15,813
% of all energy use	38.7%	38.2%	22.2%	0.2%	0.7%	100.00%

Table 3: Energy use in Bournemouth, Dorset and Poole local authority areas

Source: Department of Business, Enterprise and Regulatory Reform

Figure 1: Different energy sources' contribution to energy consumption in Bournemouth, Dorset and Poole compared to their contribution to carbon emissions (2006)

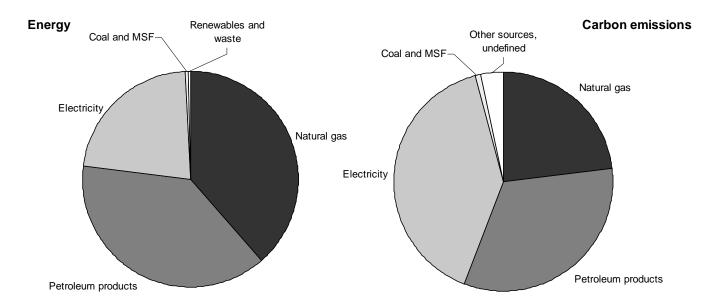


Figure 1 above shows the proportions of different fuels in final energy consumption in 2005 (that is, the bottom line of Table 3, compared with the contribution of these fuels to carbon emissions in 2005<sup>23</sup>). Note that the 'other sources, undefined' category on the carbon emissions pie chart includes non-energy sources of carbon emissions, such as land use change, and mixtures of fuels, where it is not possible to tell what the mixture is.

Electricity contributes a higher proportion of carbon emissions compared to its contribution to energy consumption; this is because it is a relatively high-carbon fuel. Conversely, natural gas provides a larger proportion of energy use and a lesser proportion of carbon emissions; it is a relatively low-carbon fuel.

<sup>&</sup>lt;sup>23</sup> Sources: energy consumption data from BERR: <u>http://www.berr.gov.uk/energy/statistics/regional/total-final/page36187.html</u> . Carbon emissions data from Defra, as before.

Petroleum products contribute the same to energy consumption as they do to carbon emissions. In the energy consumption dataset, petroleum used for home heating is not separated out, but according to the carbon emissions dataset, it is responsible for 3% of all carbon emissions and so probably a similar proportion of energy consumption in the home.

#### 13.2 A note on carbon and carbon dioxide

The terms 'carbon' and 'carbon dioxide' are generally used interchangeably, and this is the approach taken in this document. Care needs to be taken in distinguishing between the two only when weights are being used. A molecule of carbon dioxide is made up of one atom of carbon and two atoms of oxygen. A tonne of carbon dioxide contains 0.27 tonnes of carbon, with the remainder being made up of oxygen. A tonne of carbon is equal to 3.67 tonnes of carbon dioxide. Where weights are used in this strategy, this always refers to carbon dioxide. When talking about proportions, 'carbon' and 'carbon dioxide' can be used interchangeably. That is, "a 30% reduction in 2005 carbon emissions" means the same as "a 30% reduction in 2005 carbon dioxide emissions". However, if this was expressed in tonnes instead of percentages, it would be necessary to distinguish whether this referred to tonnes of carbon or tonnes of carbon dioxide.

#### 13.3 The carbon impact of different fuels

Different fuels produce different amounts of carbon dioxide per kilowatt hour. These are shown in the table below.<sup>24</sup>

a	Fuel	Kg CO <sub>2</sub> per kWh
	Electricity	0.537
	Natural gas	0.206
	Gas oil	0.265
	Diesel	0.263
	Petrol	0.252
	Fuel oil	0.282
	Industrial coal	0.347
	Domestic coal	0.313

# Table 4: Carbon dioxide conversion factors for different fuels

<sup>&</sup>lt;sup>24</sup> Source: Defra GHG Conversion Factors 2008, <u>http://www.defra.gov.uk/environment/business/envrp/pdf/ghg-cf-guidelines-annexes2008.pdf</u>

# 14 APPENDIX 3: THE POLICY CONTEXT

# 14.1 Other national policies

This section gives further information about the policy context, continuing from section 3.4.

# 14.1.1 New housing

There are two key policies regarding new housing. As stated in the 2007 Energy White Paper, all new Government funding for homes is now made on the condition that they comply with level 3 of the Code for Sustainable Homes. Also in 2007, the Government announced that all new homes will be zero carbon from 2016, and in December 2008 launched a consultation on the definition of a zero carbon home<sup>25</sup>.

# 14.1.2 Large energy users

For large energy users in the business and public sectors, the Carbon Reduction Commitment (CRC) will be an important consideration. This is an emissions trading scheme for organisations which use more than 6,000 MWh of electricity per year, where they do not have Climate Change Agreements and are not included in the EU Emissions Trading Scheme. It aims to cut carbon emissions by 1.1 MtC (4 MtCO<sub>2</sub>) per year by 2020. In Dorset, the County Council and the unitary authorities could come under the CRC, depending on the final details of the scheme, which have yet to be decided<sup>26</sup>.

# 14.1.3 The Nottingham Declaration

While not strictly a policy, the Nottingham Declaration is the main way in which local authorities can publicly state their commitment to addressing climate change. Signatories to the declaration pledge to actively tackle climate change in their local area and work with others to reduce emissions nationally. To date, over 200 local authorities have signed it. It has been signed by all local authorities in Dorset.

# 14.1.4 Policies creating funding sources

Table 9, at the end of this section, summarises policies that create funding sources for fuel poverty and energy efficiency. Key funding sources are:

- Warm Front, the national grant scheme for insulation and heating improvements for vulnerable households.
- The Carbon Emissions Reduction Target (CERT), which obliges energy suppliers to fund the delivery of domestic energy efficiency measures. Together Warm Front and CERT are estimated to be worth £2.3 billion over the three years from 2008<sup>27</sup>.

# 14.2 Locally produced strategies

This section looks at those local level policies and strategies in which energy efficiency should be included. It also gives examples of Dorset local authorities' policies.

# 14.2.1 Local Plans and Local Development Frameworks

Local Plans are still in force in Dorset district councils and Bournemouth and Poole unitary authorities. Policies in Local Plans tend to be very generalised, for example "proposals for new housing should promote energy efficiency" (East Dorset policy HODEV2) or "Energy efficiency should become an inherent part of the design and construction process" (Purbeck). Local Development Frameworks in the county are in the early stages of development and so have not been reviewed here.

One of the Local Plan objectives of West Dorset is to promote energy efficiency, the use of renewable energy and other measures to reduce the impact of development on the wider environment. Policy SU1 also relates directly to energy efficiency. Work is currently underway to develop a Supplementary Planning Document on the council's standards for sustainable construction in all new development.

Following receipt of a binding inspector's report, it is anticipated that Poole's Core Strategy will be formally adopted by the Council before the end of February 2009. Policies require new development to achieve national carbon reduction standards as a minimum. In addition to energy efficiency measures, developments of less than 10 dwellings or up to 1,000 square metres of commercial floorspace are expected

<sup>27</sup> http://www.defra.gov.uk/news/2007/071206c.htm

<sup>&</sup>lt;sup>25</sup> http://www.communities.gov.uk/planningandbuilding/theenvironment/zerocarbonhomes/

<sup>&</sup>lt;sup>26</sup> Although the larger local authorities use enough electricity over all their sites to qualify for this scheme, the final scheme may limit participation to organisations which use a total 6,000 MWh across, for example, a maximum of ten sites, in which case local authorities would not qualify. For updates on the CRC, see

http://www.defra.gov.uk/environment/climatechange/uk/business/crc/index.htm

to provide a minimum of 10% of their predicted energy use from on-site or local renewable energy sources, rising to a minimum of 20% for 10 or more dwellings or more than 1,000 square metres of commercial space.

Local plans and LDFs which have policies going above and beyond national planning policy could be subject to legal challenge or appeal, although in many cases national policy has overtaken local policies.

#### 14.2.2 Corporate Plans and Internal Policies

All local authorities produce Corporate Plans which set out their strategic priorities. For example, one of Dorset County Council's corporate priorities is to reduce carbon emissions, including a commitment to reduce the County Council's own  $CO_2$  emissions by 11% by 2010.

West Dorset's Corporate Plan's second objective is *Protecting and Enhancing the Environment*. As a result of a consultation undertaken at the end of 2007, the new Corporate Plan aims to include more specific information and a priority around climate change.

Poole's Corporate Strategy, *Striving for Excellence*, includes a priority to reduce Poole Borough Council's carbon footprint. To support this, the Council has been working with the Energy Saving Trust (EST) to audit the council's current performance and has produced an action plan for further improvements.

In terms of internal policies, Dorset County Council has an energy and water policy and action plan which was adopted in July 2005. East Dorset and Christchurch have a joint energy policy, which includes the aim of developing an energy strategy to reduce the councils' energy usage.

#### 14.2.3 Community Strategies and Local Strategic Partnerships

Every principal local authority must have a Community Strategy 'for promoting or improving the economic, social and environmental well-being of their areas, and contributing to the achievement of sustainable development in the UK<sup>28</sup>. Each local authority should work with the voluntary sector, private sector and local people to agree the content of their Community Strategy. Community Strategies are usually produced by Local Strategic Partnerships, forums of representatives from the public, private, community and voluntary sectors.

For example, affordable housing is a priority in Purbeck's Community Plan, and within this there is an aim to improve energy efficiency and sustainability of housing.<sup>29</sup> Climate change is a priority within the Community Strategy for Dorset and within this the need to develop an energy efficiency strategy for Dorset is identified as a key action.

In West Dorset Partnership's Community Plan 2006-2010, housing is identified as the top priority, including the aim to promote sustainable development through sustainable design and materials. *Our Environment* is another priority, including the aim to promote and encourage more environmentally sustainable lifestyle choices. *Health and Well-Being* is identified as a further priority, including recognising the issue of the need for healthy homes.

Poole's Sustainable Communities Strategy for 2006-2012, Shaping Poole's Future, identifies seven 'themes' within its Vision, one of which is 'Promoting a Sustainable Environment'. Key partnerships have been set up around each of the seven themes. Priorities within the sustainable environment theme include reducing Poole's carbon footprint, and addressing fuel poverty. The Bournemouth Sustainable Community Strategy has a goal to improve the energy efficiency of housing.

# 14.2.4 Local Area Agreements

A Local Area Agreement (LAA) is a three year funding agreement that sets out the priorities for a local area, agreed between central government and the local area. The local area is represented by the local authority and the Local Strategic Partnership.

The Dorset LAA has a target for renewable energy but not energy efficiency, although it does include a reference to promoting home energy efficiency schemes.

The Bournemouth LAA (2007-2010) has a target for affordable warmth, which will be measured by the total number of successful referrals to the Warm Front and Energy Efficiency Commitment (EEC) priority groups grant schemes. There is also a reference to energy efficiency and renewable energy.

<sup>&</sup>lt;sup>28</sup> Local Government Act 2000

<sup>&</sup>lt;sup>29</sup> <u>http://www.purbeck.gov.uk/default.aspx?page=7342</u>, p.19

All LAAs in Dorset have recently been re-negotiated. Dorset, Bournemouth and Poole have all signed up to the national indicator on per capita carbon emissions.

#### 14.2.5 Multi Area Agreements

Multi-Area Agreements (MAA), as described in the local government White Paper, *Strong and Prosperous Communities*<sup>30</sup>, are an emerging vehicle for "providing greater flexibility in shaping interventions within subregions and strengthening cross-boundary working between local authorities and their partners." The LAA framework will be developed to accommodate MAAs which will be developed on a voluntary basis. Groups of authorities and partners will agree shared outcome-based targets to incorporate in the MAA, which will then be reflected in each area's LAA.

It is envisaged that a MAA will be a useful approach to achieving objectives that require sub-regional collaboration, such as housing, regeneration, transport, and economic development. Dorset is among the first seven areas in the country to develop a MAA. The five strategic priorities of Bournemouth, Dorset and Poole's MAA are business growth and employment land; skills; transport and connectivity; housing; and environment.

#### 14.2.6 Housing Strategies

Relevant priorities in Housing Strategies tend to be around improving stock condition, in particular within the private sector. Those strategies which explicitly mention energy efficiency in their strategic priorities are West Dorset, with "Ensuring Healthy, Safe and Energy Efficient Housing". For Bournemouth, a key priority is to "Improve the quality and energy efficiency of all existing housing including meeting the government's Decent Homes target for Council Housing".

As part of the North Dorset Housing Strategy, North Dorset District Council intends to work with a number of external agencies to provide advice and assistance to enable energy efficiency improvements.

# 14.2.7 Private Sector Housing Strategies

Private Sector Housing Strategies deal with energy efficiency in much more detail than Housing Strategies do. Relevant aims include "to improve the levels of energy efficiency in private sector housing and take steps to reduce fuel poverty" (Bournemouth); "Eradicate fuel poverty" (North Dorset); "To improve the levels of energy efficiency in private sector housing and take steps to reduce fuel poverty and make provision for affordable warmth" (Poole), and "Increase the energy efficiency of houses in the private sector specifically targeting the elderly, disabled and those living in fuel poverty" (Purbeck). The East Dorset Housing Strategy specifically includes tackling fuel poverty as one of its local priorities through its Affordable Warmth Strategy and its partnership working.

District and borough councils have historically been the main point of contact for local homeowners and private tenants enquiring about the repair and maintenance of their homes and issues for landlords and tenants, including grant assistance. Over the last 10 years, however, changes in central government funding have lead to a general reduction in the availability of grant assistance. Councils have now therefore moved to a sign-posting role, directing enquirers to other organisations who may be able to assist.

#### 14.2.8 Fuel Poverty Strategies

All local authorities in the county (apart from the County Council, which does not have housing responsibilities) have produced fuel poverty strategies. Christchurch, East Dorset, North Dorset and Purbeck have produced a joint strategy.

# 14.2.9 Climate Change Strategies

Bournemouth has a climate change strategy, which was adopted in 2003, and is now consulting on an action plan. West Dorset District Council and the West Dorset Partnership are currently in the early stages of producing a climate change strategy for the district. This will be a practical plan looking at climate change mitigation and adaptation measures. It will aim to fit with higher level documents such as the Dorset Energy Efficiency Strategy. The climate change strategy is currently in the evidence gathering / issues consultation stage and a consultation will be undertaken in autumn 2008.

<sup>&</sup>lt;sup>30</sup> http://www.communities.gov.uk/publications/localgovernment/strongprosperous

The following tables summarise all relevant national and regional targets and policies. Table 5 shows national and regional targets for greenhouse gases. Table 6 shows national and regional targets for fuel poverty, while Table 7 shows other relevant national and regional targets. Table 8 summarises relevant national and regional policies, and Table 9 shows policies creating funding sources.

# Table 5: Relevant national and regional targets – greenhouse gases

Target Year	Category	Target	Quantity measured	Base year	Location of target	Level of commitment	Target set
2008-2012	Greenhouse gases	12.50%	Basket of greenhouse gases	1990	Kyoto Protocol (International)	European / international	2002
2010	CO <sub>2</sub> reduction	20%	Carbon dioxide	1990	Labour manifesto	National	1997
2010	CO <sub>2</sub> reduction	17%	Carbon dioxide	1990	SW Low Carbon Housing and Fuel Poverty Strategy <sup>31</sup>	Regional	2006
2020	Greenhouse gases	34%	Greenhouse gases	1990	Climate Change Act - interim target <sup>32</sup>	National	2008
2020	Greenhouse gases	42%	Greenhouse gases	1990	Climate Change Act - intended target (to be used if a global deal on climate change is reached post-Kyoto <sup>33</sup> )	National	2008
2020	Carbon dioxide	30%	Carbon dioxide	1990	SW Low Carbon Housing and Fuel Poverty Strategy	Regional	2006
2026	Greenhouse gases	30%	Greenhouse gases	1990	The Draft Revised Regional Spatial Strategy for the South West Incorporating the Secretary of States Proposed Changes <sup>34</sup>	Regional (draft)	2007

<sup>&</sup>lt;sup>31</sup> http://www.oursouthwest.com/lowcarbon/lchfp-strategy-and-action-plan-291106.pdf

http://www.bursourivest.com/nowcarbon/nemp-strategy and detor plan 201100.pdf
 http://www.theccc.org.uk/carbon-budgets/
 http://www.theccc.org.uk/carbon-budgets/
 http://gosw.limehouse.co.uk/portal/regional\_strategies/drss?pointId=1203001169567#section-1203001169567, policy SD2

Target Year	Category	Target	Quantity measured	Base year	Location of target	Level of commitment	Target set
2050	Greenhouse gases	80%	Greenhouse gases	1990	Climate Change Act - final target <sup>35</sup>	National	2008
2050	Carbon dioxide	60%	Carbon dioxide	1990	SW Low Carbon Housing and Fuel Poverty Strategy	Regional	2006

# Table 6: Relevant national and regional targets – fuel poverty

Target Year	Category	Target	Quantity measured	Base year	Location of target	Level of commitment	Target set
2010	Fuel poverty	Eliminate fuel poverty in vulnerable households	Fuel poverty	n/a	UK Fuel Poverty Strategy <sup>36</sup>	National	2001
2010	Housing quality / fuel poverty	All social housing and vulnerable private sector households to meet standard	Housing quality	n/a	Decent Homes <sup>37</sup>	National	2000, revised 2002
2010	Fuel poverty	Eradication of fuel poverty in vulnerable households	Fuel poverty	n/a	SW Low Carbon Housing and Fuel Poverty Strategy	Regional	2006
2010	Fuel poverty	Average SAP ratings of properties housing vulnerable households will be higher than 65	Fuel poverty	n/a	SW Regional Housing Strategy <sup>38</sup>	Regional	2005

 <sup>&</sup>lt;sup>35</sup> http://www.opsi.gov.uk/acts/acts2008/ukpga\_20080027\_en\_1
 <sup>36</sup> <u>http://www.berr.gov.uk/energy/fuel-poverty/strategy/index.html</u>
 <sup>37</sup> <u>http://www.communities.gov.uk/housing/decenthomes/</u> In essence a Decent Home is one that is wind and weather tight and warm, with modern facilities.
 <sup>38</sup> <u>http://www.southwesthousingbody.org.uk/media/SWHB/Regional%20Housing%20Strategy/strategy.pdf</u>

Bournemouth, Dorset and Poole Energy Efficiency Strategy: Final Version for Endorsement

Target Year	Category	Target	Quantity measured	Base year	Location of target	Level of commitment	Target set
2010	Housing quality / fuel poverty	All social housing stock, and 70% of vulnerable private sector households to meet the Decent Homes standard	Housing quality	n/a	SW Regional Housing Strategy	Regional	2005
2016	Fuel poverty	Eliminate fuel poverty in all households	Energy need vs income	n/a	Fuel Poverty in England: The Government's Plan for Action <sup>39</sup>	National	2001
2016	Fuel poverty	Eradication of fuel poverty in all households	Fuel poverty	n/a	SW Low Carbon Housing and Fuel Poverty Strategy	Regional	2006
2016	Fuel poverty	Average SAP of housing stock to be higher than 65	Housing quality	n/a	SW Regional Housing Strategy	Regional	2005
Table 7: Re	levant national and re	egional targets – other					
Torget			Quantity	Peee	Location of torget	Loval of	Torget oct

Target Year	Category	Target	Quantity measured	Base year	Location of target	Level of commitment	Target set
2011	Increase in energy efficiency in housing stock	30%	Energy efficiency	1996	HECA	National (requirement on local authorities)	1995
2016	Energy use reduction	18%	Energy use	2000	Energy End-Use Efficiency and Energy Services Directive <sup>40</sup> .	European	2005
2016	Sustainable housing	50% of new development will meet the requirements of the Code for Sustainable Homes	Housing quality	n/a	SW Regional Housing Strategy	Regional	2005

 <sup>&</sup>lt;sup>39</sup>http://www.defra.gov.uk/ENVIRONMENT/climatechange/uk/household/fuelpoverty/pdf/fuelpov\_actionplan.pdf
 <sup>40</sup>http://www.defra.gov.uk/environment/climatechange/uk/energy/pdf/action-plan-2007.pdf

Table 8: Other policies				
Policy	Category	Audience	Details	Start date
2007 Energy White Paper <sup>41</sup>	Procurement	Public Sector	By April 2008 Government will publish public sector procurement criteria for energy efficiency and energy savings.	2008
Draft Planning Policy Statement (PPS) Planning and Climate Change <sup>42</sup> - Supplement to Planning Policy 1	Planning	Public Sector	States that all planning authorities should secure the highest viable standards of energy efficiency and carbon emissions reduction in enabling the provision of new homes, jobs, services and infrastructure.	2007
Carbon Reduction Commitment <sup>43</sup>	Carbon Reduction	Large commercial and public sector organisations	Emissions trading scheme for organisations which use more than 6,000 MWh of electricity per year, where they do not have Climate Change Agreements and are not included in the EU Emissions Trading Scheme. It aims to cut carbon emissions by $1.1 \text{ MtC} (4 \text{ MtCO}_2)$ per year by 2020.	2010
EU Directive on the Energy Performance of Buildings	Buildings	All owners of buildings including Public and Business Sector	Requires that a valid Energy Performance Certificate (EPC) be generated for all dwellings at the time of sale or rental.	Theoretically 2006 in the UK, but has suffered delays
2007 Energy White Paper	Housing	Housing developers	All new Government funding for homes is made on the condition that they comply with Rating level 3 of the Code for Sustainable Homes	2007
Code for Sustainable Homes <sup>44</sup>	Housing	Housing developers	A new <i>voluntary</i> national standard for sustainable design and construction of new homes and includes a minimum standard for carbon dioxide emissions resulting from operational energy use. Assessment against the code gives a rating level between 1 and 6.	2006

http://www.dti.gov.uk/energy/whitepaper/page39534.html
 http://www.communities.gov.uk/publications/planningandbuilding/ppsclimatechange
 http://www.defra.gov.uk/Environment/climatechange/uk/business/crc/index.htm
 http://www.planningportal.gov.uk/england/professionals/en/1115314116927.html

Policy	Category	Audience	Details	Start date
April 2006 Revisions to Part L of Building Regulations <sup>45</sup>	Buildings	Developers of all types of new buildings	Part L of the Building Regulations governs energy use in buildings. The revisions will give a 20% increase in the energy efficiency of new buildings.	2006
Local Government Performance Indicators	Local government performance	Public Sector	As of April 2008 there is a new set of 198 local government performance indicators, including 3 relevant to climate change and fuel poverty <sup>46</sup> . These are: $CO_2$ reductions from local authority operations; Per capita reduction in $CO_2$ emissions in the local authority area; and tackling fuel poverty. These indicators will form part of the Comprehensive Performance Assessment from 2008 and the new Comprehensive Area Assessment from 2009. Local and Multi Area Agreements will use up to 35 of the new indicators.	2008
Home Energy Conservation Act (HECA) <sup>47</sup>	Housing	Local Authorities	As well as the 30% energy use reduction target referred to above, HECA required every UK local authority with housing responsibilities to produce a report identifying measures to improve the energy efficiency of all residential accommodation in their area and submit regular progress reports to the Government. The Government recently consulted on the future of HECA and is considering several options, including repealing HECA.	1995
Climate Change and Sustainable Energy Act	Sustainable Energy	Public Sector	<ul> <li>The main purpose of this Act was to promote microgeneration, but it also required the Secretary of State to produce an 'Energy Measures' report<sup>48</sup> setting out the steps that local authorities can take to: <ul> <li>improve energy efficiency;</li> <li>increase the levels of microgeneration and low carbon technologies;</li> <li>reduce greenhouse gas emissions; and</li> <li>reduce the number of households living in fuel poverty.</li> </ul> </li> <li>The report was published in September 2007. Local authorities must 'have regard' to the report when exercising their functions.</li> </ul>	

http://www.communities.gov.uk/planningandbuilding/buildingregulations/
 http://www.defra.gov.uk/environment/localgovindicators/indicators.htm
 http://www.defra.gov.uk/environment/climatechange/uk/publicsector/localauth/heca95/index.htm
 http://www.berr.gov.uk/energy/environment/measures/page41270.html

Policy	Category	Audience	Details	Start date
Zero Carbon Homes	Housing	Housing developers	By 2016 all new homes must be zero carbon (the definition of 'zero carbon' is still under consideration).	2016

# Table 9: Policies creating funding sources

Name	Purpose	Description
Energy Efficiency Commitment (EEC) <sup>49</sup>	Domestic energy efficiency and fuel poverty	Finished March 2008. Obliged energy suppliers to fund the delivery of domestic energy efficiency measures. Has now been replaced by CERT, which also obliges energy suppliers to fund energy efficiency measures, but targets are measured in carbon savings rather than energy savings.
Carbon Emissions Reduction Target (CERT)	Domestic energy efficiency and fuel poverty	Successor to EEC – started April 2008. Over the period 2008 to 2011 energy suppliers will be required to achieve an overall target of 154 million tonnes of $CO_2$ lifetime reduction in emissions.
Warm Front <sup>50</sup>	Domestic energy efficiency and fuel poverty	National grant scheme which provides grants for insulation and heating improvements for householders and tenants, subject to certain criteria, mainly related to receipt of state benefits.
Business Resource Efficiency & Waste (BREW) <sup>51</sup>	Business resource efficiency	Ran April 2005 to March 2008. Used money raised from the Landfill Tax. Projects funded by the BREW programme were delivered through a number of established programmes and organisations, including the Carbon Trust, Envirowise, Regional Development Agency, WRAP, and the Environment Agency.
Salix <sup>52</sup>	Energy efficiency and renewable energy in the public sector	A non-profit company linked to the Carbon Trust which works with local government, the NHS, universities and central government. It has funding of £20 million from the government and typically provides funding of around £250,000, which must be match-funded, to be spent on energy efficiency and renewable energy measures with a payback period of less than five years.
Department of Health Energy Efficiency Fund <sup>53</sup>	Energy efficiency in the NHS	$\pounds$ 100 million fund established by the Department of Health in January 2007, for energy efficiency in NHS organisations

<sup>&</sup>lt;sup>49</sup> http://www.defra.gov.uk/environment/climatechange/uk/household/eec/ (See this link as well for information about CERT) <sup>50</sup> http://www.warmfront.co.uk/ <sup>51</sup> http://www.defra.gov.uk/Environment/waste/brew/ <sup>52</sup> http://www.salixfinance.co.uk/home.html <sup>53</sup> http://www.dh.gov.uk/en/Policyandguidance/Organisationpolicy/Estatesandfacilitiesmanagement/ <sup>54</sup> Organisationpolicy/Estatesandfacilitiesmanagement/ <sup>55</sup> http://www.dh.gov.uk/en/Policyandguidance/Organisationpolicy/Estatesandfacilitiesmanagement/ <sup>56</sup> http://www.dh.gov.uk/en/Policyandguidance/Organisationpolicy/Estatesandfacilitiesmanagement/ <sup>57</sup> http://www.dh.gov.uk/en/Policyandguidance/Organisationpolicy/Estatesandfacilitiesmanagement/ <sup>58</sup> http://www.dh.gov.uk/en/Policyandguidance/Organisationpolicy/Estatesandfacilitiesmanagement/ <sup>59</sup> http://www.dh.gov.uk/en/Policyandguidance/Organisationpolicy/Estatesandfacilitiesmanagement/ <sup>50</sup> http://www.dh.gov.uk/en/Policyandguidance/Organisationpolicy/Estatesandfacilitiesmanagement/ <sup>50</sup> http://www.dh.gov.uk/en/Policyandguidance/Organisationpolicy/Estatesandfacilitiesmanagement/ <sup>50</sup> http://www.dh.gov.uk/en/Policyandguidance/Organisationpolicy/Estatesandfacilitiesmanagement/ <sup>51</sup> http://www.dh.gov.uk/en/Policyandguidance/Organisationpolicy/Estatesandfacilitiesmanagement/ <sup>52</sup> http://www.dh.gov.uk/en/Policyandguidance/Organisationpolicy/Estatesandfacilitiesmanagement/ <sup>53</sup> http://www.dh.gov.uk/en/Policyandguidance/Organisationpolicy/Estatesandfacilitiesmanagement/ <sup>54</sup> http://www.dh.gov.uk/en/Policyandguidance/Organisationpolicy/Estatesandfacilitiesmanagement/ <sup>55</sup> http://www.dh.gov.uk/en/Policyandguidance/Organisationpolicy/Estatesandfacilitiesmanagement/ <sup>56</sup> http://www.dh.gov.uk/en/Policyandguidance/ <sup>57</sup> http://www.dh.gov.uk/en/Policyandguidance/ <sup>58</sup> http://www.dh.gov.uk/en/Policyandguidance/ <sup>58</sup> http://www.dh.gov.uk/en/Policyandguidance/ <sup>59</sup> http://www.dh.gov.uk/en/Policyandguidance/ <sup>50</sup> http://www.dh.gov.uk/en/Policyandguidance/ <sup>50</sup> http://www.dh.gov.uk/en/Policyandguidance/

Sustainabledevelopment/DH\_074290

# **15 APPENDIX 4: THE DOMESTIC SECTOR**

The domestic sector, comprising residential buildings, contributes the highest proportion of Dorset's  $CO_2$  emissions of all the sectors. This chapter begins by giving some context about the composition of  $CO_2$  emissions from this sector and the characteristics of the domestic sector in Dorset. It goes on to look at spending on energy efficiency and the role of advice provision, and then considers the current performance of local authorities in terms of work being undertaken, and the Matrix assessment results.

# 15.1 Context

This section provides some context about the scale of domestic carbon emissions and the characteristics of the domestic sector in Dorset.

# 15.1.1 Domestic sector carbon dioxide emissions

Table 10 below shows the sources of domestic sector carbon dioxide emissions in each local authority area. The contribution of domestic emissions to total emissions over all the local authorities is 37%, although for individual local authority areas this varies between 28% and 46%. Electricity and gas use account for the vast majority of emissions (each one is approximately 45% of Dorset's total domestic emissions). Table 11 shows domestic emissions per capita and per occupied household.

1000 tonnes CO <sub>2</sub> (2006)	Domestic Electricity	Domestic Gas	Domestic Oil	Domestic Solid fuel	Domestic Other	Total Domestic	Domestic as % of total emissions
Bournemouth	194	209	4	0	5	413	45%
Christchurch	52	61	3	0	1	118	41%
East Dorset	103	116	25	2	3	247	43%
North Dorset	84	57	39	3	2	184	40%
Poole	155	187	8	0	5	356	37%
Purbeck	55	50	20	1	1	128	30%
West Dorset	136	83	56	4	3	282	33%
Weymouth and Portland	67	73	10	1	2	152	50%
Total	846	835	164	11	23	1,878	39%

#### Table 10: Sources of domestic sector carbon dioxide emissions

Source: Defra, as page 7

# Table 11: Per capita and per household domestic CO<sub>2</sub> emissions

Tonnes CO <sub>2</sub> (2006)	Domestic per capita	Domestic emissions per occupied household (estimate)
Bournemouth	2.6	5.73
Christchurch	2.6	5.72
East Dorset	2.9	6.91
North Dorset	2.8	7.27
Poole	2.6	6.03
Purbeck	2.8	6.77
West Dorset	2.9	6.93
Weymouth and Portland	2.3	5.61
B, D & P Average	2.7	6.28

# 15.1.2 Characteristics of the domestic sector in Dorset

The key characteristics of the domestic sector in Dorset in relation to energy efficiency are highlighted below (see Table 13 on page 58 at the end of this chapter for more information).

#### Population

The population of Dorset is just over 701,800, with approximately 333,419 occupied dwellings. Just over a quarter of the population is over 60 (women) or 65 (men), which is significantly higher than the England and Wales average of 18.7%. Christchurch is the local authority area with the highest proportion of older people, who comprise a third of the population.

#### **Older people**

The proportion of older people is significant because they tend to be more at risk of fuel poverty as they are likely to be living on fixed incomes (and therefore vulnerable to energy price rises) and often live in underoccupied houses (living alone in the former family home) which are expensive to heat on a single income. Single-person households are likely to have high per-capita  $CO_2$  emissions because the emissions resulting from heating the home are not shared with others. They are also likely to spend more time at home and so use their heating more often. Finally, older people tend to live more sedentary lives and so are more vulnerable to the detrimental health effects of cold homes.

#### Tenure

70% of the county's housing stock is owner-occupied. The proportion of households which are privately rented varies between 7.7% and 20% in different local authority areas, and the proportion of social housing varies between 7.9% and 12.8%.

#### Social housing

Both unitary authorities still have their own housing stock, with a high average SAP<sup>54</sup> rating. The other local authorities have transferred their stock to Registered Social Landlords (RSLs). Brief telephone interviews were undertaken with four RSL representatives in Dorset as part of the research for this strategy. The four RSLs interviewed all have ongoing programmes of improvement for their stock, including energy efficiency. In terms of new build, the Housing Corporation, which funds Registered Social Landlords, currently requires new dwellings built by RSLs to meet Code for Sustainable Homes (CSH) level 3<sup>55</sup>.

# **Fuel poverty**

Estimates of the numbers of households in fuel poverty in each local area range from 6.8% of private sector households (Poole) to 19.6% of all households (Weymouth). Take up of benefits in Dorset is lower than the national average, while incomes are low. This means that there is a risk that households will not qualify for energy efficiency grants that are available to those receiving income- or disability- related benefits, even though those households may be suffering fuel poverty. Some elderly residents may own high value houses but have little spare money, meaning that they are fuel poor even though they have high value assets.

#### New housing

The RSS suggests that approximately 66,000 new dwellings should be built between 2006 and 2026 in the county. Although the building regulations will ensure that these homes are more energy efficient than the existing housing stock (providing the regulations are effectively enforced), strong policies relating to the energy efficiency of these dwellings will be necessary to make sure that additional future housing does not wipe out the benefits of efficiency gains made in the existing housing stock. For example, if each new home produces on average half as many emissions as the current average home in Dorset, the planned increase in housing could lead to a 10% increase in domestic sector emissions by 2026. Therefore this strategy is developed against a background of rising energy use and carbon emissions.

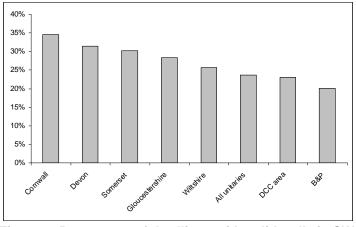
#### 15.2 Hard to treat properties

The South West as a whole has the least energy efficient housing of all regions, although only by a small margin. It is estimated that 37% of the region's properties are considered hard to treat, that is, there are limited options for improving their efficiency<sup>56</sup>. This often includes properties which have solid walls or are in areas which are not connected to the gas network. Analysis for the South West Low Carbon Housing and Fuel Poverty Strategy found that 20% of the region's dwellings would not reach an acceptable standard of energy efficiency even after the installation of all cost effective measures: this is an improvement on the 37% figure, but is still a significant number. This analysis was based on the cost effectiveness of individual measures: some of this remaining 20% could be addressed by the use of a 'package' of measures, whereby although not every measure within the package is cost effective, the overall package is cost effective.

<sup>&</sup>lt;sup>55</sup> see Table 8 on page 46 for more information on the Code for Sustainable Homes

<sup>&</sup>lt;sup>56</sup> Draft Climate Change Action Plan for the South West

The following graphs, based on data from the Energy Saving Trust, show estimates of the quantity of solidwalled and off-gas properties in selected areas of the South West<sup>57</sup>. The Dorset County Council area and Bournemouth and Poole are compared with the other counties in the South West and all South West unitary authorities.



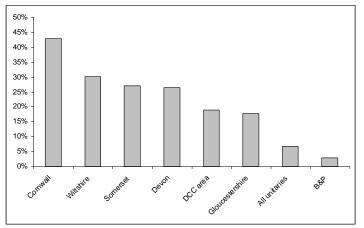


Figure 2: Percentage of dwellings with solid walls in SW counties

Figure 3: Percentage of dwellings off-gas in SW counties

As can be seen, Bournemouth and Poole have the lowest proportion of solid-walled and off-gas properties in this group, and have slightly less than the average for all unitary authorities in the South West. For the Dorset County Council area there is a lower proportion of solid walled properties than the other South West counties, as well as proportionally less properties which are off the gas network than Cornwall, Wiltshire, Somerset or Devon. Figure 4 and Figure 5 below provide a further breakdown of this information for each individual local authority in Dorset and some South West counties for reference.



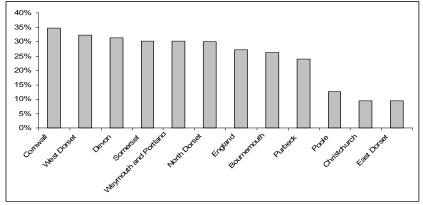
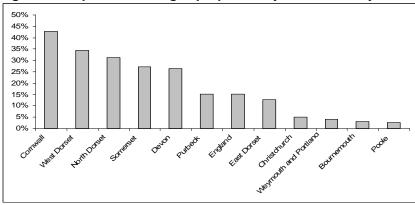


Figure 5: Proportion of off-gas properties by local authority area



<sup>&</sup>lt;sup>57</sup> The figures on solid walls were queried by two local authorities. Both Bournemouth and West Dorset's own surveys indicate that they have fewer solid walled properties than shown here. The data presented is from the Energy Saving Trust, and was derived from RESIDATA, a database used by the property insurance industry and based on information collected from surveyors. It is considered to be the best data available for the South West region as a whole, but it should be borne in mind that this kind of data is never completely accurate and is based on a set of assumptions and estimates.

As illustrated, West Dorset has the highest proportion of hard to treat properties in Dorset, although this proportion is not as high as that of Cornwall. Relative to the English average, West Dorset, Weymouth, and North Dorset have high proportions of solid walled properties, while West Dorset, North Dorset, and Purbeck have high proportions of off-gas properties.

# 15.3 Spending on energy efficiency and measures installed

# 15.3.1 Current activity

This section looks at the amount of national grant funding that is spent on energy efficiency in Dorset (*not* the amount of money that is spent by local authorities). This gives a good indication of the level of activity and the opportunities available to increase activity. The national programmes for energy efficiency measures are Warm Front, the Energy Efficiency Commitment and Decent Homes. These programmes are promoted both by local authorities and directly by the organisations that administer them. The Fuel Poverty Advisory Group (FPAG) estimates that spending on fuel poverty in 2007/8 is £640 million in England<sup>58</sup>. This works out at approximately £9.8 million annually for Dorset if pro-rated by the total number of households.

The figure below shows Warm Front spending in the nine months April-December 2006<sup>59</sup> (unfortunately data covering the full year was not available), for Dorset local authorities and comparable South West counties. This data should be taken as being a broad indication only, as there can be large variations between years and the data is also quite old. It would be useful to have a central source of information about Warm Front and CERT spending across different areas, but unfortunately there is none available.

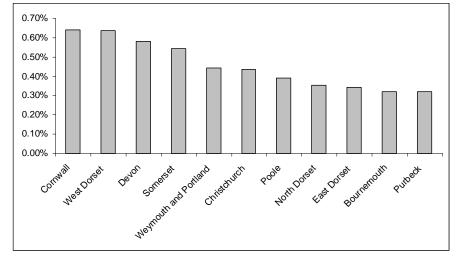


Figure 6: Warm Front spending April- December 2006: percentage of households assisted

It is interesting to note that although Cornwall, West Dorset, Devon, and Somerset all have a high proportion of hard to treat properties, they also have a high proportion of households assisted by Warm Front. This shows that a high proportion of hard to treat properties is not necessarily a barrier to increasing the amount of activity. It should be noted here that feedback from stakeholders has shown a difference of opinion regarding the usefulness of Warm Front. While Eaga, who administer the scheme, have emphasised that an independent evaluation has shown that Warm Front offers value for money<sup>60</sup>, some local authority officers are of the opinion that Warm Front is not good value for money and tend to refer householders to other schemes for preference. This can mean that although Warm Front take-up may be low in a particular area, take-up of other schemes may be higher in that area. The incompleteness of available data means that this cannot be shown in the figures. In addition, it has been noted that the need to top up Warm Front grants in some cases has proven to be a barrier to take up.

In 2005-6, the Heat Project (see 15.6.1 for a description) installed 1,920 measures in Dorset (loft and cavity wall insulation).<sup>61</sup> (Data for 2006-7 is available but is not representative because there was limited funding available in that year). In comparison, in Somerset, the Warm and Well project installed 2,358 measures (loft and cavity wall insulation) in 2006-7.

<sup>&</sup>lt;sup>58</sup> http://www.berr.gov.uk/files/file38873.pdf Fuel Poverty Advisory Group 5<sup>th</sup> annual report, 2007

<sup>&</sup>lt;sup>59</sup> Source: Eaga Charitable Trust

<sup>60</sup> http://www.defra.gov.uk/Environment/climatechange/uk/household/fuelpoverty/warmfront/vfm.htm

<sup>61</sup> Source: Enact

In terms of EEC funding which was not channelled through the HEAT project, work done by local installers following referrals from DEAC brought in an additional £335,000 of EEC funding in 2006-7. Two projects managed by DEAC also drew in EEC funding. One project, to install measures in properties owned by private landlords in Bournemouth brought in EEC funding of £880,000 for a council contribution of £80,000. The second project, also in Bournemouth, to install measures for over 60s with properties in council tax bands A to D, drew in a further £14,000 of EEC funding.

# 15.3.2 Future funding

Recent announcements regarding future spending indicate that £2.3 billion will be available over the next three years, encompassing Warm Front (England) and CERT  $(UK)^{62}$ . This translates into approximately £10.5 million annually for Dorset. However, there are no sub-regional restrictions on the allocation of national funding, so this figure could be increased if Dorset is able to organise to secure more than its 'fair share' of national funding.

The FPAG has calculated that the total required spending to eradicate fuel poverty in England by 2016 would be £1 billion per year until this date.<sup>63</sup> This is approximately £15 million annually for Dorset. That would mean that the funding available in 2008-2011 is not sufficient to put Dorset on a path to eliminating fuel poverty, and that other funding sources (or a larger share of current national funding) would need to be obtained in order to do so.

# 15.4 Energy advice

Households must be provided with information about costs and benefits of energy efficiency measures, including potential grant funding, if they are to take effective action to reduce their emissions. This needs to happen on a large scale if the potential for carbon reduction in the county is to be realised.

The South West's Low Carbon Housing and Fuel Poverty Strategy and Action Plan<sup>64</sup> concluded that in order to meet its carbon reduction and fuel poverty targets<sup>65</sup>:

- The installation rates for energy efficiency and on-site renewables need to be increased by a factor of 3.5 to 4.
- The provision of domestic energy efficiency advice needs to expand so that 10-12% of householders in the region are receiving advice each year.

Until recently, the Energy Saving Trust (EST) funded 5 separate Energy Efficiency Advice Centres (EEACs) in the South West operating from 6 centres, including Dorset Energy Advice Centre. Now, the EST has restructured its advice provision and funds one regional advice provider, known as the Energy Saving Trust Advice Centre. The South West Energy Saving Trust Advice Centre is responsible for providing energy advice to the public throughout the South West, through both direct contact and through local and community based initiatives (which can be in partnership with local organisations).

The advice centre provides households with free, impartial, quality advice on energy efficiency, renewables, transport, water and waste, with a focus on carbon reduction. The advice provided is independently audited and evaluated. Funding for the new regional centre has been significantly increased to enable more households to be supported and a range of proactive targeting and outreach to be delivered, driving take up of local services, grants and programmes.

# 15.4.1 What is needed from an energy advice provider in Dorset?

The new approach to delivery of energy advice outlined above and associated additional EST funding will lead to an increase in activity and potentially a re-drawing of relationships and service provision within Dorset.

This process potentially provides stakeholders in Dorset with an opportunity to be clear about what they want from the advice provider (whoever they may be in future). The key contributions from an advice provider should include:

- High quality, impartial advice to all Dorset households;
- A proactive approach to communications, with partnership working with local authorities and community organisations to maximise householder engagement;

<sup>62</sup> http://www.defra.gov.uk/news/2007/071206c.htm

<sup>&</sup>lt;sup>63</sup> As footnote 58

<sup>&</sup>lt;sup>64</sup> http://www.oursouthwest.com/lowcarbon/lchfp-strategy-and-action-plan-291106.pdf

<sup>&</sup>lt;sup>65</sup> These figures need to be revised upwards following the strengthening of national carbon reduction targets through the Climate Change Act

- Support for, and co-ordination with, local authorities in the delivery of local strategies;
- A locus for pulling together insulation and grant schemes to make the most of funding and delivery;
- Ensuring that Dorset gets its 'fair share' of activity relative to the rest of the region.

#### 15.5 Assessment of current local authority performance

Local authorities' current performance on domestic energy efficiency was assessed using the Local and Regional Carbon Management Matrix (see section 1.1 for further details and APPENDIX 1 for details of all the levers in the Matrix). It should be emphasised that this was a self-assessment undertaken by the officers working in relevant roles. Lower ratings should not be interpreted as reflecting badly on the officers involved, because each rating is the result of interaction between many factors, many of which are not under individual officers' control.

Table 12 below summarises the Matrix self-assessment results for domestic sector energy efficiency. Overall ratings for each lever are concentrated around *fair* to *good*, but some levers show variation across all four ratings. North Dorset had the lowest overall score while Bournemouth had the highest. The County Council did not complete the domestic section of the Matrix as it has no HECA responsibilities.

According to comments provided with the Matrix assessment returns, two authorities were struggling with under-resourcing, while others considered that they had a reasonable level of engagement with energy efficiency and one noted senior level commitment. In general there was a high level of involvement with HECA fora. An issue noted in the comments was that there was a limited amount of officer time dedicated to HECA, which in turn influenced the extent to which some authorities could promote energy efficiency advice.

The highest rated lever was *Own housing stock*. However, this lever was not applicable to most authorities and the high average score is a result of Bournemouth and Poole both being rated *excellent*. The next highest rated levers were *Building regulations enforcement* and *Project support*.

The lever with the lowest rating was *Regeneration / economic development schemes*. This is an area where local authorities nationwide perform badly. The next lowest rated lever was *Planning policy and control*. This rating was accompanied by comments noting that the rating would improve in the transition from local plans to LDFs.

# Table 12: Self-assessment of current local authority performance on domestic energy efficiency

	weak	fair	good	excellent
OVERALL APPROACH	wean	Christchurch	Bournemouth	CAUGHEIR
		North Dorset	East Dorset	
		Purbeck	Poole	
		Weymouth and Portland	West Dorset	
Strategic engagement and	North Dorset	Christchurch	Bournemouth	
resourcefulness		Poole	East Dorset	
		Weymouth and Portland	Purbeck	
		-	West Dorset	
Own housing stock/social housing sector policies		Purbeck (ref Purbeck Housing Trust)		Bournemouth Poole
Private sector housing / HECA	Christchurch	Poole	East Dorset	Bournemouth
	North Dorset		Purbeck	West Dorset
			Weymouth and Portland	
Planning policy and control	Christchurch	Bournemouth	Purbeck	
	East Dorset		West Dorset	
	North Dorset		Weymouth and Portland	
	Poole			
Building regulations		North Dorset	Bournemouth	East Dorset
enforcement		West Dorset	Christchurch	Purbeck
			Poole	
Desensation ( coordinates	Christehungh	Daala	Weymouth and Portland	
Regeneration / economic dev schemes	Christchurch	Poole	Bournemouth East Dorset	
Schemes	North Dorset Weymouth and Portland		East Dorset	
Energy advice provision	Christchurch	Weymouth and Portland	Bournemouth	
Energy advice provision	North Dorset	weymouth and Fortiand	East Dorset	
	North Dorset		Purbeck	
			West Dorset	
Project support	North Dorset	Christchurch	Purbeck	Bournemouth
2 11		East Dorset	West Dorset	
		Poole		
		Weymouth and Portland		
Grant and energy efficiency	North Dorset	Christchurch	East Dorset	Bournemouth
delivery schemes (EEC, Warm			Poole	West Dorset
Front etc)			Purbeck	
			Weymouth and Portland	
Monitoring and reporting	North Dorset	Christchurch	Bournemouth	
		East Dorset	Poole	
		Purbeck	West Dorset	
Communications, advanting		Obviotation	Weymouth and Portland	
Communications, education and leadership		Christchurch	Bournemouth	
		East Dorset North Dorset	West Dorset	
		Poole		
		Purbeck		
		Weymouth and Portland		
Co-ordination of district-level	North Dorset		Bournemouth	Weymouth and Portland
activity and technical			Christchurch	
advice/support (county/ sub-			East Dorset	
regional partnerships			Poole	
			Purbeck	
			West Dorset	
Communications, education	North Dorset	Christchurch	Purbeck	Bournemouth
and leadership (county/ sub-	Poole	East Dorset	West Dorset	
regional partnerships				
	1	Weymouth and Portland	1	1

# 15.6 Local authority programmes and projects to support the domestic sector

The Matrix analysis in the previous section looks at all aspects of local authorities' involvement in domestic energy efficiency. Here, this is illustrated by looking at work being undertaken which directly supports domestic energy efficiency improvements. Local authorities are currently running a wide range of activities. This section summarises information taken from local authorities' housing strategies, private sector housing strategies, fuel poverty strategies, responses to the Matrix analysis, and direct input from local authorities. It is organised according to types of actions that local authorities can take, with examples of how Dorset local authorities have put this into practice. It is not an exhaustive list but gives a flavour of action that is currently taking place. It should be noted that while this was correct at the time of writing, this list should be viewed as a snapshot, as it is likely to date rapidly. Planned future activity will include local authorities working together more closely, for example in the provision of councils' own grants and loans: see 15.6.2 below.

#### 15.6.1 Promotion of nationally available grants

- East Dorset, North Dorset, Purbeck and Weymouth and Portland all endorse the Heat Project. This is a
  national scheme which provides subsidised energy efficiency measures using EEC / CERT funding from
  four utility companies. Local authorities do not need to provide funding for this (although the Heat Project
  can administer local authority funding if it has some available), but local authority sign-up to the Heat
  Project means that the local authority's branding can be used in mail-outs, which helps to increase
  uptake of measures.
- Weymouth and Portland and West Dorset work with Climate Energy (an energy agency in Essex), which provides a service similar to the Heat Project.
- All authorities provide free advice and guidance on other national schemes such as the Government's Warm Front grants and Energy Efficiency Commitment schemes, and undertake various activities to promote these.
- Bournemouth has a Local Area Agreement target to deliver almost 2,000 Warm Front and EEC/CERT grants by 2010.
- Poole operates a council tax rebate scheme in partnership with British Gas, using EEC/CERT funding. Householders who install cavity wall and loft insulation receive a £100 rebate on their council tax.

# 15.6.2 Council's own grants and loans

- Bournemouth's grants and loans for home improvement prioritise energy efficiency.
- East Dorset's and Purbeck's Empty Property Grants are available for energy efficiency measures in long term empty properties which will then be used for tenants nominated by the council.
- Bournemouth's HMO Insulation Project and Poole's "Warmth Seekers Scheme", both landlord energy efficiency grants, are administered through DEAC.
- West Dorset provides grants and loans for home repairs / improvements that can include energy efficiency measures including Warm Front top ups<sup>66</sup>.
- East Dorset, Poole, Purbeck, Bournemouth and West Dorset provide top up funding for Warm Front and other measures.
- All of the districts and borough councils in Dorset have jointly developed a set of grant and loan schemes
  which aim to increase the availability of funding for domestic energy efficiency measures and provide a
  more unified system within the county. These include an Interest Free Mortgage Equity Scheme, the
  inclusion of energy efficiency in the Landlords' Accreditation Grant, and a Fuel Poverty Grant. These are
  currently in the process of being adopted by local authorities and should be implemented at the start of
  the new financial year.
- DEAC administers Bournemouth's insulation grant for over 60s in A-D Council Tax Banded properties.
- Poole has a scheme for HMOs which are not covered by Warm Front. This is administered by DEAC.
- Poole's Home Safety Scheme, which includes thermal comfort, has been recognised by CLG as best practice.

# 15.6.3 Advice provision

- The Dorset Energy Advice Centre (DEAC), based in Poole, provides advice on domestic energy efficiency and renewable energy to around 15,000 householders in Dorset annually. It does this through a service level agreement with the Energy Saving Trust, both via a free phone number and through events.
- DEAC also works with local authorities to develop and deliver projects. For example, it has projects with both Bournemouth and Poole unitary authorities to provide insulation to privately rented properties.
- DEAC also works with over 60 staff from local partners such as Age Concern, both at a strategic level and by delivering advice and measures to their clients, and with volunteer groups. It has trained 25 volunteers to give energy advice through outreach energy advice centres in libraries in Weymouth, Bridport and Christchurch.
- Christchurch has had 6 front line environmental services staff trained by DEAC to give advice on the 'Warm as Toast' scheme.
- East Dorset and Purbeck provide free advice and guidance on measures which could be taken to improve energy efficiency in homes.
- Bournemouth, Poole, East Dorset, Purbeck and West Dorset run local energy efficiency 'road shows'. Christchurch has held exhibitions at retail outlets.

<sup>&</sup>lt;sup>66</sup> A Warm Front grant may not cover the full cost of a measure, and so if a householder cannot afford to pay the excess, a 'top-up' grant can be made by the local authority to cover this excess.

- Bournemouth, Christchurch, East Dorset, Purbeck and West Dorset regularly feature items about energy efficiency in the council newspaper.
- All authorities carry out district wide leaflet drops.
- Weymouth & Portland utilise the DEAC & also the volunteer group Weymouth Energy Advice Centre for free advice.
- Weymouth & Portland intend to review their web information and have been increasing the promotion of schemes available to their residents.
- Purbeck runs an annual Environment Week in which promotion of energy efficiency plays an important role.
- All authorities use their websites to offer energy advice.
- Purbeck has held Home Safety Events for the elderly and given energy efficiency talks to schools throughout the district.

#### 15.6.4 Installation schemes

• DEAC administer Bournemouth's HMO Insulation Project, which to date has insulated 5,500 individual privately rented units free of charge to landlords, using EEC and council funding.

#### 15.6.5 Support and partnerships

- Bournemouth has had assistance from a National Energy Action officer to support a "Fuel Poverty Champion" Bournemouth Council Cabinet Member.
- North Dorset District Council is working in partnership with a number of external agencies to secure assistance for homeowners, landlords and tenants to enable them to finance energy efficiency improvements to their homes. The Council currently works in conjunction with DEAC, Enact Sustainable Energy Consultants and the Heat Project scheme.
- Bournemouth, East Dorset, Purbeck, West Dorset and Weymouth and Portland all have schemes whereby partner workers are trained to refer households they suspect are at risk of fuel poverty to receive appropriate help. These schemes are organised in partnership with Primary Care Trusts, Home Improvement Agencies such as Anchor Staying Put, Council Neighbourhood Management, Social Services, Care and Repair, and POPP (Partnership for Older People's Project) Wayfinders.

#### 15.6.6 Social housing

- Bournemouth Borough Council has an improvement programme for its own stock with a target of SAP 65.
- Poole's council housing has an average SAP of 71, and the council is on target for Decent Homes in 2010 in its own stock.

#### 15.6.7 Setting standards

• Bournemouth, North Dorset, East Dorset, Poole and Christchurch have developed accreditation schemes to encourage consistent standards in the private rented sector.

#### 15.6.8 Dedicated resources

• Purbeck and East Dorset shared an Affordable Warmth Officer for 1 year from June 2006. Their role was to provide local residents with the latest information and best deals on insulation, heating and home improvements.

Table 13: Dom	estic sector ke										
	Bournemouth	Christchurch	East Dorset	North Dorset	Poole	Purbeck	West Dorset	Weymouth	Dorset (incl unitaries)	South West	England & Wales
Population (2005 mid year estimate)	163,561	45,074	85,163	65,367	137,094	45,147	95,813	64,581	701,800	5,067,800	53,390,200
Estimated dwellings March 2006	81,801	22,439	38,092	29,049	64,070	21,164	46,708	30,096	333,419	2,185,966	22,538,641
% of dwellings which are occupied	88%	92%	94%	87%	92%	89%	87%	90%	90%	95%	96%
Average household size	2.19	2.15	2.32	2.30	2.30	2.32	2.21	2.26	2.3	2.3	2.4
% of population over 60 (female) or 65 (male)	22.5%	33.3%	30.1%	23.6%	23.9%	25.8%	28.6%	23.0%	25.6%	21.8%	18.7%
% of whole housing stock which is owner- occupied	69%*	79.30%	84.40%		75%		78%	73.20%	70%	74.4%	
Social housing	11%	12.80%	7.90%		12%		13%	10.50%		15.0%	
Privately rented as % of whole stock	20%	7.90%	7.7%		10%		9%	13%		10.6%	
Housing stock built before 1919	27%	8%	15%			19.76%	31%			24.6%	
Average SAP of all housing	44 (2003)	50	51	50		52 (2004)					
Households estimated to be suffering fuel poverty	11.20%		8.7% (2004)	9.5% (2007)	6.8% of private sector HH	17.20% at risk	7.9%	19.6% at risk			
Annual average net dwelling requirement 2006-2026, from Secretary of State's proposed changes to the draft RSS (July 2008)	805	172.5	320	350	500	257.5	625	280	3,310	29,623	

Table 13: Domestic sector key figures

Sources: Dorset Data Book (<u>http://www.dorsetforyou.com/media/pdf/a/g/Dorset\_Data\_Book\_2007.pdf</u>), local authority housing and private sector housing strategies. Housing figures from <u>http://www.dorsetforyou.com/index.jsp?articleid=3996</u>. \*Figures in italics are inferred from other figures

# 16 APPENDIX 5: THE BUSINESS SECTOR

# 16.1 Introduction

The business sector contributes the second highest proportion of Dorset's  $CO_2$  emissions. This chapter looks at:

- The sources of business sector CO<sub>2</sub> emissions;
- The provision of energy efficiency advice to businesses; and
- An assessment of local authorities' current performance on engaging with businesses to help them to use energy more efficiently.

# 16.2 Context

There is no data set which shows the carbon emissions or energy use of the business sector alone, but Defra figures give the combined  $CO_2$  emissions of businesses and the public sector (including hospitals and schools). This is shown as 'Industry and Commercial' in the table below<sup>67</sup>.

Thousand tonnes CO₂ (2006)	Industry and Commercial	% of each local authorities' total emissions
Bournemouth	329	36%
Christchurch	95	33%
East Dorset	170	29%
North Dorset	146	32%
Poole	439	46%
Purbeck	184	43%
West Dorset	256	30%
Weymouth and Portland	91	30%
TOTAL B, D & P	1,710	36%

Source: Defra, as page 7

A very loose estimate of the contribution to  $CO_2$  emissions in the county from different business sectors can however be made using data from the economic modelling tool Econ-i, which is used by local authorities in the South West<sup>68</sup>. This is shown in Table 15 below. It should be emphasised that these figures only give a rough indication, and due to the potential inaccuracies in the data, they are shown as percentage contributions to the whole rather than in tonnes  $CO_2$  (the percentages sum to 99% due to rounding).<sup>69</sup> Each business sector's CO2 contribution is a function of both the size of the industry in Dorset and the carbon intensity (per £ of GVA) of each business type. This is based on 2005 GVA. Public sector operations are not included in this table (in Defra statistics given elsewhere in this strategy, emissions from the business and public sector are included together in the same category).

# Table 15: Estimated contribution to CO<sub>2</sub> emissions by business in Dorset

Industry	CO2 contribution	Tonnes CO <sub>2</sub> per £ million GVA
Finance	16.8%	82
Secondary industries	14.1%	446
Energy and water	12.0%	492
Business services	9.6%	17
Distribution and retail	8.5%	30

<sup>&</sup>lt;sup>67</sup> Defra, as before: <u>www.defra.gov.uk/environment/statistics/globatmos/galocalghg.htm</u>

<sup>68</sup> http://www.economicsystems.co.uk/south-west/

<sup>&</sup>lt;sup>69</sup> A further complication of this data is that it has been impossible to ascertain whether it includes transport emissions, which of course will not be covered by the strategy. It would appear that this data does include transport emissions, as the *Transport Services* sector has one of the highest contributions to emissions.

Industry	CO2 contribution	Tonnes CO₂ per £ million GVA
Transport	7.0%	116
Primary industries	6.1%	136
Non metal products	6.1%	291
Chemicals	3.7%	572
Construction	3.5%	20
Metal products	2.2%	45
Other services	1.7%	22
Hotels and catering	1.5%	19
Food and Drink	1.3%	89
Transport equipment	1.3%	38
Paper and printing	1.2%	53
Metals	1.2%	1,652
Other manufacture	0.7%	99
Engineering	0.5%	19
Textiles	0.3%	90
Electronics	0.3%	8
Wood and wood products	0.2%	115
Communication	0.2%	6
Coke ovens, refined petroleum, and nuclear fuel	0.1%	31

Source: Econ-i modelling tool

The high contribution of the finance sector is due to the size of the industry in the region. Per £ million of GVA, the finance sector's emissions are low, but its total GVA is high, resulting in relatively high emissions.

Figure 7 presents the information from Table 15 in graphical form, showing the ten businesses which make the highest contribution to Dorset's  $CO_2$  emissions.

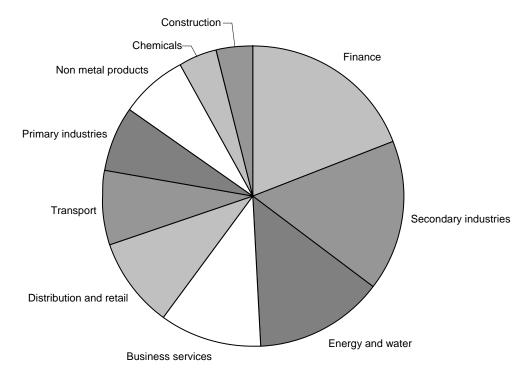


Figure 7: Top ten business sectors' contribution to CO<sub>2</sub> emissions

#### 16.3 Business advice - background

The provision of good quality advice is essential to the improvement of energy efficiency in this sector. As no grant funding is available for the installation of energy efficiency measures in the business sector<sup>70</sup>, there is a need for businesses to get to grips with the potential for cost savings from energy efficiency measures. The majority of business, in particular small businesses, will need support from an advice provider in order to make sensible decisions about investing in energy efficiency measures.

CSE conducted a review of the current provision of energy efficiency advice for the business sector in Dorset. This included web-based research, a review of relevant literature and reports, and a series of telephone interviews with business advice providers in the county. The aim of this research was thus to ascertain the current availability and uptake of business energy efficiency advice in Dorset, to draw conclusions as to the effectiveness of this advice provision, and to undertake a gap analysis to indicate what changes would be necessary to meet the proposed target.

In sections 16.3.1 and 16.3.2, background information on business advice services is provided, followed by results from interviews in section 16.4. In section 16.5 a gap analysis is undertaken to determine the extent to which business advice provision would need to increase to meet given carbon reduction targets.

#### 16.3.1 Business support simplification

In the 2006 Budget the Chancellor of the Exchequer asked the public sector to reduce the number of business support schemes from over 3,000 to a maximum of 100. This was in response to the DTI's Annual Small Business Survey, which showed that over 50% of businesses surveyed want government support but have difficulty finding out what is available. One aspect of the Government's vision for simplified business support is 'High quality joined-up services for the customer, accessed primarily through Business Link'<sup>71</sup>.

Reflecting this national change, the South West RDA, through the EU competitiveness fund, is putting in place a programme of environmental business support, which will be delivered by Business Link.

Business Link's role is to talk to businesses, diagnose issues for them, and signpost them to relevant third party advice providers. This has the advantage that businesses do not get passed through several advice providers before they find the right one. In addition, instead of the business diagnosing its own issues and then searching for advice on these issues, Business Link provides an opportunity to look more holistically at the business and flag up issues that the business may not have thought of – reducing energy use to reduce costs being one issue to which the business is not likely to have given much attention. This approach therefore provides an opportunity to pick up more candidates for energy efficiency advice compared to the situation where businesses diagnose their own advice needs.

# 16.3.2 Business Resource Efficiency in the South West: a report to the SW RDA

This report was written by the consultancy Ecotec for the South West Regional Development Agency in October 2006<sup>72</sup>. One of the aims of the study was to review the provision of resource efficiency advice currently available in the South West.

The study found that robust data on the impact of advice provision was not generally available and so the impact of current advice provision could not be determined. The report's authors estimate that the penetration of the different categories of resource efficiency support were as follows:

- Low level support: 1% of all businesses
- Medium level support: 0.5% of all businesses
- Intensive support: 0.4% of all businesses

This means that resource efficiency advice is reaching less than 2% of businesses annually.

The overall conclusions of the part of the report that dealt with advice provision were as follows. (Some have been omitted as they are not considered to be relevant to Dorset.)

- Different businesses and sectors have different support needs, ranging from specialist technical support to a simple leaflet;
- Support is either provided at a national level or is provided at a sub-regional level, unevenly spread across the region according to funding opportunities;

<sup>&</sup>lt;sup>70</sup> Although Enhanced Capital Allowances and interest-free loans are available to some businesses.

<sup>&</sup>lt;sup>71</sup> DTI (2007) Simplifying Business Support: An Introductory Document, available from http://www.dti.gov.uk/files/file38859.pdf

<sup>&</sup>lt;sup>72</sup> Ecotec, Business Resource Efficiency in the South West, October 2006, unpublished

- The sub-regional organisations are more likely to target smaller companies, while the national level ones go for larger businesses. As the majority of businesses in the region are small businesses, the unevenness of sub-regional advice provision leads to gaps in the advice available in some areas
- Take-up of support is constrained by lack of time / money; lack of external financial support; confusion about the available services; and lack of awareness of available services;
- There is duplication of awareness, signposting and networking services, leading to confusion for businesses trying to access support.

# 16.4 Business advice – interviews with advice providers

Thirteen business sector advice providers were identified for participation in the telephone interviews. The key information on the different advice organisations operating in Dorset, obtained through the interviews and further research, is summarised in Table 18 on page 66 at the end of this chapter. A total of eight advice providers were interviewed. Sections 16.4.1 to 16.4.3 below summarise the results of the interviews in terms of barriers to uptake of advice, opportunities for advice providers to help businesses, and key issues for business resource efficiency advice.

#### 16.4.1 Barriers to uptake of energy efficiency advice

The barriers identified by interviewees were:

- Confusion among businesses about where to find support and whether they would be eligible for it. This is something that is well recognised and is being addressed nationally and regionally, through the rationalisation of support services and the promotion of Business Link as the gateway to all business advice.
- A lack of knowledge among businesses about the potential for receiving free support and favourable financing.
- A lack of awareness among businesses about the potential savings available from energy efficiency.
- Businesses have limited time to dedicate to finding information on energy saving or, if they get advice, to implement the advised actions. This is exacerbated by confusion over advice services.
- Businesses tend to focus on the short term. They may not be willing or able to commit resources now in order to save money over the coming years, especially if they cannot be sure they will still be trading in a year's time.
- A lack of motivation from businesses. If businesses cannot be sure of the potential benefits of undertaking actions to improve their energy efficiency or the timescale in which these benefits will accrue, they are unlikely to pursue them.

#### 16.4.2 Opportunities for advice services to help Dorset businesses improve their energy efficiency

Interviewees were asked where they saw the opportunities for advice services to help businesses in Dorset improve their energy efficiency. The opportunities identified were:

- More collaboration between advice providers, in order to reduce duplication of services and simplify
  access for businesses. As mentioned above, this is being addressed through the business simplification
  programme.
- Provision of on-site support for businesses which fall below the Carbon Trust's energy bill threshold of £50,000 per year. The reason for the Carbon Trust's threshold is to make sure that the funding available leverages the biggest cost and carbon savings, but a less detailed on-site energy survey for smaller businesses could possibly provide a comparable ratio of savings for funding used. This would benefit Dorset as there are fewer large businesses with high energy bills in the county compared with the UK average.
- Raise awareness of the available free advice and financial assistance.
- Publicise what businesses have already achieved, so that others feel they would be losing out to competitors if they do not pursue the financial benefits of energy efficiency.

# 16.4.3 Summary: key issues for business advice

The key issues arising from the interviews with advice providers were that:

- Businesses that want energy efficiency advice face confusion about where best to go;
- Small businesses do not qualify for on-site support from the Carbon Trust;
- Most businesses that seek advice are not specifically looking for energy efficiency advice;
- Those businesses that could benefit from energy efficiency advice are often not aware of those potential benefits;
- Businesses that would like to improve their energy efficiency do not know enough about the benefits to be able to make a rational decision about how much effort to put into it.

# 16.5 Gap analysis

This section attempts to assess how much the provision of energy efficiency advice to businesses would need to increase, in order to meet different carbon reduction targets.

The advice providers interviewed were not able to provide information about the energy or carbon reductions resulting directly from their advice. However, the Carbon Trust produces a range of publications targeted at different industries. These normally include an estimate of the potential for energy saving in the average business within that sector. These publications were reviewed in order to provide a summary of potential savings and the areas where these are to be found. These are shown in Table 16 below.

Industry	Potential savings	Sources of gains
Chemicals	5 to 15% of energy bill	Process improvement
Food and drink	Up to 10%	Process control
Hospitality	40% reduction in energy bill	Energy efficiency measures installed during refurbishment
Hospitality	12% reduction in carbon emissions	Simple energy efficiency measures that pay for themselves within 2 years
Agriculture and horticulture	30% of heating costs	Simple energy saving measures
Retail	20% reduction in costs	Better management of heating and lighting
General	10% of energy bill	Better boilers and associated distribution systems
General – industrial buildings	20% of heating costs	Simple measures
General – offices	20% of energy bills	Simple measures

Table 16: Potential	savings in s	some industry	sectors
Table TO. FUlcillia	savings in a	some muusu y	3001013

This suggests that on average a 20% reduction in energy costs is possible for most businesses. Assuming that, on average, cost savings are split equally between all fuels that a business uses (normally electricity and gas) then carbon savings of 20% would be available on average per business.

According to the statistics provided by our interviewees, approximately 230 businesses in Dorset receive onsite support from resource efficiency advice providers every year<sup>73</sup>. If we also assume (on a very simplistic basis) that each and every business which receives on-site advice achieves savings of 20% each, and that there are 20,000 businesses in Dorset, then:

- Current advice provision is facilitating reductions of 0.2% of the sector's emissions per year;
- At current levels of on-site advice provision, emissions from business will be reduced by 1.1% in five years and 2.3% in ten years;
- The assumption that 20% reductions are easily available combined with a 30% reduction target means that some businesses will have to make reductions of more than 20%, perhaps by receiving advice more than once over the 12 year period.
- In order to reduce this sector's emissions by 30% by 2020, on-site advice provision would have to increase by a factor of 11.
- This would mean that 2,500 businesses would be advised each year. In eight years all businesses in Bournemouth, Dorset and Poole could be covered, and in 12 years, 10,000 businesses would receive advice more than once.

# 16.6 Assessment of current local authority performance

Local authorities' current performance on improving energy efficiency in the business sector was assessed using the Local Carbon Management Matrix (see section 1.1 and APPENDIX 1 for details). It should be emphasised that this was a self-assessment undertaken by the officers working in relevant roles. Lower ratings should not be interpreted as reflecting badly on the officers involved, because each rating is the result of interaction between many factors, many of which are not under individual officers' control.

While local authorities' influence over business energy efficiency is not as strong as their influence over the domestic sector, there are still ways in which they can influence businesses. These include economic

<sup>&</sup>lt;sup>73</sup> This has been calculated using the figures in Table 18 on page 66 and pro-rating the South West and national figures, subtracting Business Link figures as they refer businesses on to other providers, and subtracting those organisations with permanent memberships, as these do not represent additional contacts that are made every year. Even so, it is probably an overestimate as individual businesses may have sought advice from more than one source.

development functions, promotion of business advice services, leadership in the community, planning policy, and procurement.

Local authorities' current performance in these key areas was assessed using the Local Carbon Management Matrix (see section 1.1 and APPENDIX 1 for details). Table 17 (following page) presents the results of the local authority self-assessment regarding performance on business energy efficiency. Overall performance is firmly in the *fair* category. *Building regulations enforcement* was the highest rated lever, while *Planning policy and control* received the lowest rating. This low rating was based on current local plans rather than LDFs in development. North Dorset had the lowest rating on average over all the levers, while East Dorset had the highest.

#### 16.6.1 Key issues for local authorities

An issue identified in the comments from local authorities which accompanied these ratings was that although sustainability is recognised in a range of strategies, there is not generally a clear plan of action when it comes to the business sector. In terms of procurement, procurement officers do tend to be aware of sustainability issues, and several authorities have procurement guidelines or policies which take into account energy efficiency, but these do not contain targets.

The development of the Dorset Multi Area Agreement was also identified by local authorities as an opportunity to promote engagement with business energy efficiency.

#### 16.7 Conclusion: Business sector

The business sector is only marginally behind the domestic sector in terms of its contribution to carbon dioxide emissions.

In terms of business advice, current provision is enabling an estimated 0.2% reduction in the sector's emissions annually. Whatever the target chosen for this strategy, there will be a need to increase the uptake of advice. Evidence from interviews suggests that a useful way to do this would be to make cost savings the focus of promotional efforts and to create a sense that businesses would be losing out to their competitors if they did not take up advice. Alongside this there is a need to increase the scale of advice provision, in particular to small businesses, and to engage those businesses that approach Business Link for advice on other matters.

In terms of local authority activity, performance in this sector is in general *fair*, indicating little active engagement on this issue. The levers that local authorities have at their disposal to influence business sector carbon emissions are weaker than those for the domestic sector, but there are still ways in which local authorities can influence this sector, in particular leadership, procurement, and promotion of advice services.

Other stakeholders also have a role to play. These stakeholders include advice providers, business associations, and local strategic partnerships.

	weak	fair	good	excellent
OVERALL APPROACH	Christchurch North Dorset	Bournemouth Dorset CC East Dorset		
		Poole		
		Purbeck		
		West Dorset		
Strategic engagement and	North Dorset	Bournemouth	Poole	
resourcefulness		Christchurch Dorset CC		
		East Dorset		
		Purbeck		
		West Dorset		
Economic development		Bournemouth	Dorset CC	
and regeneration activities		Christchurch	East Dorset	
activities		North Dorset	Purbeck	
		Poole		
		West Dorset		
Planning policy and	Christchurch	Bournemouth	Purbeck	
control	East Dorset North Dorset	Poole	West Dorset	
Building regulations enforcement		North Dorset West Dorset	Christchurch Poole	Bournemouth East Dorset Purbeck
Business advice provision (either direct or through support for 3rd party)	Christchurch	Dorset CC East Dorset North Dorset West Dorset	Bournemouth	
Procurement	Bournemouth North Dorset Purbeck	Christchurch Dorset CC Poole	East Dorset West Dorset	
Communications and leadership	Christchurch North Dorset	Dorset CC East Dorset Poole Purbeck West Dorset	Bournemouth	
Co-ordination of district- level activity and technical advice/support	Purbeck	Bournemouth Christchurch Dorset CC East Dorset North Dorset Poole West Dorset		

Organisation	Nature of advice (services, topic area)	Eligible Audience & Area	Uptake of advice	Targets	Funding and Time Frame	Additional Information
Business Link Wessex	Full range of business services. Independent and impartial, key 'gateway role' providing information, diagnosis and signposting to environmental support organisations.	SMEs. Any sector, including voluntary /charity in Dorset	Dorset: Contact with ~11,000. Ongoing relationship with ~1000.	Two key targets, agreed with RDA: Customer satisfaction (customers surveyed monthly) Businesses assisted	Three year contract with SW RDA.	Aim is for Business Link to be 1st point of contact for business, with signposting to suitable support organisations in South West. On environmental side, tends to be the Advisor who raises the issue- topic area in the Business Review. Proactive in organising events and workshops to raise awareness. Along with information on website, e-alerts.
Carbon Trust	Extensive range of services and targeted programmes, aimed at reducing carbon emissions and developing low carbon technologies.	All business (inc. public sector), UK wide. Carbon Survey only available to businesses with annual energy bill over £50,000	<ul> <li>(National figures for 2006/07)</li> <li>Advice line customers: 35,000</li> <li>On-site energy surveys: 5000</li> <li>Energy management &amp; technical training events delegates: 2700</li> <li>Unique website users: 460,000</li> <li>Publications downloaded: 197,000</li> <li>Publications requested: 120,000</li> <li>Interest-free energy efficiency loans: 482 (totalling £18m)</li> <li>Carbon savings identified: 4.6 MtCO<sub>2</sub></li> <li>Carbon savings achieved: 1.2 – 2.0 MtCO<sub>2</sub></li> <li>Cost savings identified: £485-545m</li> <li>Cost savings achieved: £114-117m</li> </ul>	Targets for carbon savings identified and carbon savings implemented.	Defra, DBERR, Devolved Administrations, mainly. Funding extends beyond BREW.	Events, general marketing through all media, work with trade associations. 'Hospitable Climates', supported by the Carbon Trust, is a free energy advisory programme aimed specifically at hospitality industry (no threshold). Businesses joining Hospitable Climates expected to set own energy reduction targets in return for receiving free advice, consumption comparison data, newsletters, & further signposting. Overall target of Hospitable Climates is to reduce carbon emissions from hospitality industry 15% below 1999 levels by 2010; recruit 7,500 establishments as members; with identified potential savings of £31 million a year.
Dorset New Forest Tourism Partnership	Support to tourism providers through direct engagement & training. Jurassic Coast Quality Business scheme includes specific green and energy efficiency focus, linked to the Green Tourism Business scheme (GTBS)	Tourism businesses and some retail in Dorset and East Devon. Advice provision focused on Jurassic Coast.	10 members of GTBS in Dorset (not necessarily direct result of Partnership) Green Awareness Course: 6 businesses attended this year. Green surgery, assistance with	Jurassic Coast Quality Business scheme target of ~50 businesses per year. 150 tourism businesses supported	Project funded. Mostly SWRDA (also Learning and Skills Council, European Social Fund)	Signpost to Envision

# Table 18: Advice providers available to Dorset businesses

Organisation	Nature of advice (services, topic area)	Eligible Audience & Area	Uptake of advice	Targets	Funding and Time Frame	Additional Information
			joining GTBS: 8 delegates.			
Dorset Business	Provide events, training, award schemes and networking for members on range of business issues, including environmental. Coordinates Resource Efficiency Club (SMART) in conjunction with South Wessex Waste Minimisation Group and Envirowise to provide mentoring and specialist advice/support via BREW.	All businesses in Dorset. For Resource Efficiency income over £500,000 required (necessary for savings targets)		SMART members demonstrate efficiency savings. Target: savings 5x funding received. (£200,000 savings in first year)	Resource Efficiency Club funded by Envirowise	E-news, Dorset Business magazine to publicise environmental issues and generate interest. Resource efficiency relies on information from businesses- can be limiting factor to progress.
Dorset Energy Advice Centre (DEAC)	Core activity is energy advice for domestic users; provide some free advice to businesses and organisations. Free advice limited to half hour verbal by pre-bookable telephone surgery. Further services include walk-through audit and full reports, provided for a fee.	Any business, any size, including charities, in Dorset	<ul> <li>November 2006-07:</li> <li>7 businesses advised out of 23,915 businesses in Dorset</li> <li>Covered food (1), leisure (1), professional (1), charity (2), community (2)</li> <li>5 referrals</li> <li>Identified potential savings 282,250kWh a year.</li> <li>Known savings: 73,500 kWh per year (likely much higher)</li> </ul>	5,000 businesses per year approached. Would like to help 400 (8%) a year.	Not funded! Comes out of domestic work currently. Only 0.25 fte over last year. Occasionally get paid audits.	From end November 2007 commencing door-to-door on-site offer of support. Half hour in-house support offered on the spot, leaflets distributed, option to take up further advice at later date. Signpost to Envirowise, Business Link, Landfill Community Fund, Carbon Trust, EST website, Envision.
<b>Envirowise</b> (BREW)	<ul> <li>Free environmental business support in form of:</li> <li>Up to 2 hrs telephone advice</li> <li>Website: publications, training material etc to download</li> <li>On site support up to 8 hrs, inc.report.</li> <li>Cover all aspects of Resource Efficiency, but not specifically for energy.</li> </ul>	All businesses. (Publicly funded organisations not eligible for on site support)	South West 2006/07: • 735 calls on advice line; • 277 'fast threads' • ~400 publication downloads • ~500 hard copies requested • 100-120 site visits Dorset: April – Sept 2007: • 3,628 helpline enquiries • 7 Fast Track visits • 4 Design Track visits • 3 on-site requests declined Signpost businesses elsewhere for energy efficiency advice, e.g. to	Business savings target relative to funding allocation. Regional targets for number of businesses assisted, new contacts, site visits and savings based on business plan.	Under BREW Programme (Defra) Current funding ends 31/3/08	Advertising, mail shots, events. Partnership working to access business audience. Client feedback and internal quality checks

Organisation	Nature of advice (services, topic area)	Eligible Audience & Area	Uptake of advice	Targets	Funding and Time Frame	Additional Information
Envision	Range of environmental support, including phone, events, training and on-site visits/audits. Initial 2 hour visit with 'baseline report', with potential 3-10 day follow on consultancy and report on environmental impacts, inc: impacts identified by annual cost, kWh or Kg of CO <sub>2</sub> ; Recommendations for improvements; Estimates of costs, payback and financial/environmental savings; Assessment of site for new opportunities; Recommendations for future business expansion; suggested timetable for action.	SMEs in South West	Carbon Trust. Last 5 years: 600 businesses, saving over £5m, including: 4.26GWhs of energy 4,893 tCO <sub>2</sub> Oct 2002 – July 2008: 1. Substantive support (3- 10days) to 916 SMEs 2. Advice & guidance to 1,727 SMEs 3. Assisted environmental audit for 890 SMEs 4. 33 Business mentors employed	121 receive 2 hr support 46 receive 3-10 hour support	Fee charged, depends on size of organisation, but heavily subsidised on all levels.	Ongoing support provided to businesses to assist in implementing actions identified and agreed through audit. Follow-up data collection to identify savings. Envision receive signposting from Business Link, Chambers of Commerce and other Sector links. Would direct companies to, e.g. BREW partners, if too large to qualify under Envision.
Federation of Small Businesses, Wessex	Non-profit making and non- party political campaigning pressure group promoting and protecting the interests of self- employed and owners of small firms. Assistance and support available 24hours a day via helpline.		2006, nationally: 100,000 calls to helpline, mainly on employment matters			
Future Foundations	Focus on Sustainable Construction. Website contains details of the Charter (Sustainability South West initiative) and offers online Pledge facility for organisations to commit to it. Provides guidance and information on sustainable construction best practice. Charter includes section of energy efficiency.	All organisations in the South West	Pledges (as of December 2007): 163 organisations		Website supported by GOSW and Wessex Water	

Organisation	Nature of advice (services, topic area)	Eligible Audience & Area	Uptake of advice	Targets	Funding and Time Frame	Additional Information
South Wessex Waste minimisation group	Members group, free to join, providing networking, exchange of best practice and training and advice on all aspects of resource use. SWWMG delivery partner (with Dorset Business) for Resource Efficiency Club (REC)	All organisations. Broadly set up for South Wessex area (Dorset and parts of Somerset, Wiltshire & Hampshire) but membership not restricted.	250 members. Quarterly meetings. Annual workshop. Reported savings through REC (end yr 1): £261,000	Targets: REC- £200,000 in savings per year	Environment Agency fund quarterly meetings and provide secretariat function. Workshops- try to get sponsorship or charge small fee. REC- funded by Envirowise. Funding subject to meeting savings targets.	
South West Manufacturing Advice Service	Works closely with manufacturers in the region to help improve productivity and competitiveness. Providing advice, tools and techniques on all aspects of manufacturing (resource efficiency included in lean manufacturing).	Manufacturing organisations in the South West	<ul> <li>80% focus on lean manufacturing.</li> <li>Potential audience:</li> <li>12,000 manufacturing businesses in SW, generate over £11 billion to local economy and employ nearly 300,000</li> <li>Last 5 years: <ul> <li>780 manufacturers visited</li> <li>Over 3,500 days of best practice modules &amp; workshops delivered</li> <li>Over £30m saved across 350 businesses</li> <li>300 events, 6,000 attendees</li> <li>60 companies participated in Strategic Management Programme</li> </ul> </li> </ul>		Funded by RDA. 3 year contract fixed with targets	Businesses referred to SWMAS from Business Link, Train to Gain, Envirowise, NISP, UKTI. Would refer specific energy efficiency issues to resource efficiency club, envirowise, envision and NISP.
Wessex Energy and Environmental Management Group (EEMGs)	Independent, non-profit making bodies, promoting energy efficiency and good environmental practice. Enables development and exchange of ideas, technologies and techniques through training seminars, workshops, meetings.	Industry, commerce and public sector	Membership: South West- 850 Wessex- 120 Bi-monthly events.			
Wessex Environment Business Network (WEBN)	Wessex Environment Business Network exists to help local businesses profit from environmental	Businesses throughout Wessex (fee for membership)	Over 80 members. Last 12 months Resource Efficiency Programme		Funding secured for Resource Efficiency Programme for further 10months-	Environmental reviews carried out by consultant from Envolve- half day or full day- businesses signposted to contact Envolve direct.

Organisation	Nature of advice (services, topic area)	Eligible Audience & Area	Uptake of advice	Targets	Funding and Time Frame	Additional Information
	improvement. Advice and support is given on environmental law, ISO 14001, and the reduction of waste and energy consumption costs, through a programme of seminars and networking events, and a quarterly newsletter. WEBN Runs Resource Efficiency Programme- includes site visits.		identified almost £210,000 in projected savings for local businesses.		provides free review of resource use	
Other Advice Organis	ations (not identified for interview)					
Waste Resource Action programme (WRAP)	Extensive range of services and targeted programmes, focus on Waste/Recycling.	All businesses, target varies with programme, UK wide			BREW partner. Funding extends beyond BREW.	
National Industrial Symbiosis Programme (NISP)	Extensive range of services and targeted programmes. Focus on Business Synergy.	All businesses UK wide. (Not publicly funded)			Linked to BREW	

# 17 APPENDIX 6: PUBLIC SECTOR

This chapter is concerned with the performance of Dorset local authorities in managing their own  $CO_2$  emissions from their buildings. Apart from some brief background research summarised in the 'context' section below, the assessment of performance in this sector is entirely based on the Local Carbon Management Matrix.

# 17.1 Context

Local authorities own a huge variety of buildings. As well as offices, they have buildings such as multi storey car parks, crematoria, leisure centres, sports stadiums, care homes, schools, town centre complexes, public toilets, pumping stations, ferry terminals, plant nurseries, tourist information centres, libraries, magistrates courts, and hotels. Some of these are particularly high energy users (e.g. leisure centres). For those local authorities that are responsible for schools (Dorset County Council, Bournemouth Borough Council and Borough of Poole), schools' energy use forms a large part of the local authority's energy consumption (for example, in the case of Dorset County Council, this is just over half of total energy consumption and emissions).

The Carbon Trust estimates that UK local authorities together spend approximately £750 million on energy annually, resulting in emissions of over 25 million tonnes of  $CO_2$  each year.<sup>74</sup>

The table below shows the buildings owned by Dorset local authorities for which data was available (the year is 2004/5; some local authorities provided more up to date data but for consistency 2004/5 has been used). There is some variation in the emissions per  $m^2$  between local authorities, but some of this will be due to the functions of the buildings as well as differences in energy efficiency.

The total contribution of all local authorities for which data was available is equal to 0.88% of all of Dorset's  $CO_2$  emissions. While this is a small figure, it represents the emissions that are potentially most easily and effectively tackled by local authorities.

	Number of buildings	Total m <sup>2</sup>	Total CO <sub>2</sub> emissions (tonnes)	CO <sub>2</sub> emissions (tonnes) per m <sup>2</sup>	Local authority emissions per head of population (kg)	Direct emissions as % of local authority area emissions
Bournemouth	193	250,209	15,616	0.06	95.48	1.68%
Christchurch	69	18,556	1,634	0.09	36.24	0.54%
Dorset County Council	380	545,040	21,066	0.04	52.51	0.70%
East Dorset	10	8,840	809	0.09	9.50	0.14%
North Dorset	17	6,310	805	0.13	12.31	0.17%
Poole	176	228,248	11,190	0.05	81.09	1.20%
Purbeck	3	2,495	164	0.07	3.63	0.04%
West Dorset	47	11,393	470	0.04	4.91	0.05%
Weymouth and Portland	45	17,602	2,477	0.14	38.35	0.78%
Total	940	1,088,693	54,230	0.05	135.19	1.12%

# Table 19: Dorset local authority buildings and estimated direct CO<sub>2</sub> emissions.

In addition to their own buildings, some local authorities own buildings which are leased out, with energy bills being paid by the tenants. For example, Weymouth and Portland own a further 163 buildings totalling more than 30,000m<sup>2</sup>.

<sup>&</sup>lt;sup>74</sup> The Carbon Trust, Local Authorities Sector Overview, p.4

http://www.thecarbontrust.co.uk/publications/publicationdetail?productid=CTV028 Tonnes of carbon are converted to carbon dioxide by multiplying by (44/12).

As well as building energy use, local authorities are also responsible for street lighting, which can represent a significant proportion of energy costs. The figures here do not include car parks or street lighting, which consume a considerable amount of electricity. For example, lighting and car parks in Bournemouth accounted for an extra 4,500 tonnes CO<sub>2</sub>.

#### 17.2 Self-assessment of current local authority performance

Local authorities' current performance on improving energy efficiency in their own buildings was assessed using the Local Carbon Management Matrix (see section 1.1 and APPENDIX 1 for details). It should be emphasised that this was a self-assessment undertaken by the officers working in relevant roles. Lower ratings should not be interpreted as reflecting badly on the officers involved, because each rating is the result of interaction between many factors, many of which are not under individual officers' control.

Table 20 (following page) shows the results of the Matrix assessment for the public sector. Overall average performance is *fair*, spilling into *good* for some levers. North Dorset received the lowest rating while Dorset County Council received the highest rating. The County Council was the only authority to be rated *excellent* on any of the levers.

The highest rated lever was *Carbon management programme*, followed by *Own buildings energy management*. The *Carbon management programme* lever is possibly rated too highly, as some authorities chose *good* although they are not participating in a full carbon management programme.

Dorset County Council, Purbeck, Poole and Weymouth and Portland have worked with the Carbon Trust (with Dorset County Council, Purbeck and Poole participating in the *full* Carbon Trust Local Authority Carbon Management Programme). In addition Bournemouth and Poole are working with the Energy Saving Trust. The other authorities noted that there is staff interest in taking part in some kind of carbon management programme, but that the required senior level interest is lacking, and in one case noted that there is not sufficient staff time available.

Comments on the *Own buildings energy management* lever reflected the level of resources that are available as identified in the *Dedicated resources* lever. As would be expected, those with higher levels of dedicated resources considered their building management to be *good*, while those with fewer resources identified the lack of funding as a barrier to improving the efficiency of their own buildings.

The lever with the lowest rating was *Co-ordination of procurement activity*, with 3 *weak*, 5 *fair*, and 1 *good* rating. Some authorities are part of buying consortia, but these have basic criteria or criteria that are at an early stage of development. In terms of procurement in general rather than co-ordination of procurement between organisations, the majority have a procurement policy or guidelines, although there is not always a requirement to follow these.

The next lowest rated lever was *Staff motivation and involvement*, with 1 *weak* rating and 8 *fair* ratings. The majority have some kind of staff training for energy efficiency in place, with two authorities noting that they have planned improvements which should improve their rating.

Overall, authorities have plans in place but few targets. The level of senior support varies across the group of nine local authorities. Funding for energy efficiency is available in some form in all authorities, but it is not normally ring-fenced and can be part of an overall maintenance budget.

In terms of monitoring, most authorities collect some data on energy use, but in some cases there is no reporting back to users or budget holders. Some respondents mentioned that there are no targets associated with this monitoring, although monitoring information is used to identify opportunities to reduce wastage.

In general, the largest authorities rate themselves the highest. Normally, work on energy efficiency is much better established in these authorities.

# Table 20: Self-assessment of current local authority performance on public sector energy efficiency

	weak	fair	good	excellent
OVERALL APPROACH		Bournemouth Christchurch	Dorset CC	
		East Dorset		
		North Dorset		
		Poole		
		Purbeck		
		West Dorset		
<b>•</b> • • •		Weymouth and Portland		
Strategic engagement and	North Dorset	Bournemouth	Christchurch	
resourcefulness		Poole	Dorset CC	
		Purbeck West Dorset	East Dorset Weymouth and Portland	
Carbon management		Christchurch	Bournemouth	Dorset CC
programme (Carbon Trust		East Dorset	Purbeck	Dorset CC
or equivalent)		North Dorset	Weymouth and Portland	
		Poole	weymouth and Fortland	
		West Dorset		
Staff motivation and	North Dorset	Bournemouth		
involvement	Weymouth and Portland	Christchurch		
	,	Dorset CC		
		East Dorset		
		Poole		
		Purbeck		
		West Dorset		
Dedicated resources	North Dorset	Christchurch	Bournemouth	
		East Dorset	Dorset CC	
		Poole	West Dorset	
<u> </u>		Purbeck	Weymouth and Portland	2
Own buildings energy	North Dorset	Purbeck	Bournemouth	Dorset CC
management (incl. approach to Energy	Poole	Weymouth and Portland	Christchurch	
Performance in Buildings			East Dorset	
Directive)			West Dorset	
Monitoring of energy use &		Bournemouth	Dorset CC	
carbon emissions		Christchurch		
		East Dorset		
		North Dorset		
		Poole		
		Purbeck		
		West Dorset		
Sahaala anaray		Weymouth and Portland		
Schools energy management		Bournemouth		
management		Dorset CC		
		Poole		
Procurement (equipment,	North Dorset	Bournemouth	Christchurch	
buildings and		Dorset CC	East Dorset	
refurbishment)		Poole	West Dorset	
		Purbeck		
		Weymouth and Portland		
Sub-regional resource		Christchurch	Bournemouth	
sharing and co-ordination		Dorset CC	West Dorset	
		East Dorset		
		North Dorset		
		Poole		
		Purbeck		
Co-ordination of	Foot Derect	Weymouth and Portland	Durkest	
procurement activity	East Dorset	Bournemouth	Purbeck	
procurement activity	North Dorset Poole	Christchurch Dorset CC		
	Weymouth and Portland	West Dorset		
	Weymouth and Folliallu			

#### 17.3 Local authorities' energy conservation programmes

To help illustrate some of the current activity in this sector, examples of energy conservation programmes from Dorset County Council and Purbeck District Council are given below.

Dorset County Council has actively pursued investment in energy and water conservation measures since 1979 and has achieved considerable success. Over that time (until March 2007) the Council's fuel consumption has been reduced by 56% from 301 to 133 GWh/m<sup>2</sup>/year and water consumption by 38% from 0.91 to 0.56 m<sup>3</sup>/m<sup>2</sup>, saving the Council a total of £30.6 million for an investment of £8.2 million.

For its existing buildings, a comprehensive programme of energy conservation measures has been undertaken primarily aimed at improving insulation, heating controls, heating systems, boilers and lighting. Priority has been given to energy conservation measures with short paybacks (less than 5 years) therefore allowing money to be quickly recouped and ploughed back into further measures. Consequently the County Council has now carried out a complete programme of cavity wall and loft insulation, and over 260 buildings are controlled by a Building Management System (BMS).

To support its programme of energy conservation measures the Council also undertakes a comprehensive programme of awareness raising activities. This includes amongst other things an innovative touring theatre programme targeted at both primary and secondary schools and a targeted programme of awareness raising with staff.

Purbeck District Council has an Environmental Action Team (EAT) which has members from every section who are responsible for energy conservation in their section. The group will also be used as part of the implementation of the carbon change action plan and in developing a carbon management programme in the future.

#### 17.4 Conclusion: Public sector

While local authorities' direct  $CO_2$  emissions are only a small percentage of the total, they are one of the largest single sources of emissions. That is, there are few single housing owners or businesses which make a comparable contribution to the county's emissions. Furthermore, rather than needing to persuade others to take steps to reduce their emissions (as is the case for example with the business sector) in this sector local authorities can take action directly. Perhaps the greatest advantages, however, are that local authorities can save money by taking action to reduce their energy use, and can show leadership to others through their own example.

Average current performance is *fair* and so there is substantial room for improvement. As local authorities have direct control over the emissions resulting from operation of their estate, the public sector section of the Matrix contains some of the strongest levers in terms of local authority influence on emissions.

# **18 APPENDIX 7: COMMUNITY AND CHARITABLE SECTOR**

This chapter looks at energy efficiency in Dorset's community and charitable sector. It includes some context and considers key issues, barriers and opportunities in this sector.

#### 18.1 Context

There are no official statistics available on the carbon impact of the community and charitable sector. However, the **influence of this sector over others** is more important than its direct emissions. It is able to reach into the community at a more 'grass roots' level than a local authority, and has opportunities to spread the word about energy efficiency and to identify where people are living in fuel poverty. **Therefore this sector's impact on the energy efficiency and carbon emissions of the domestic sector is in fact more important than the effect of the sector's own buildings.** 

Many community organisations do not own their own buildings. In terms of building ownership and possibilities for increasing the efficiency of these buildings, village halls and churches are the key organisations in this sector. In terms of reaching the wider community, other types of organisation are important, but churches and village halls remain key due to their wide contact with the community. In addition organisations may find it easier to communicate information about energy efficiency if they have their own building which can be used as an exemplar.

#### **18.2** Assessment of current performance

In order to assess current performance in the community and charitable sector, a questionnaire was circulated to village halls, churches and community groups. The survey was not intended to be a statistically representative sample of the sector; rather it was a way of canvassing views and identifying opportunities for action. 28 questionnaires were returned, 15 of which were from village halls, 10 from churches, and 3 from other community / charitable organisations.

There was greater participation from organisations in the area covered by Dorset County Council. This suggests that there is a need to gain wider buy-in from community groups in the unitary authority areas in future work. From an analysis of the returned questionnaires, key issues were identified which are described in the sections below.

#### 18.2.1 Village halls

Village halls have contacts with a wide range of different groups in the community. The village hall committees and trustees do not directly organise events and groups, rather they provide a service in the form of a building to hire. However, this does mean that they are in contact with a large proportion of their community and therefore would be a good point of contact for third parties who wish to promote energy efficiency.

Village halls in general gave a positive response when asked whether they would be willing to promote energy efficiency in their community, with one reason being that it would help to strengthen the hall's relationship with its community. The barriers that were identified to doing so were that they might meet apathy, and that there was a lack of money and volunteer time to organise an event. Promotional materials and support from an expert were identified as required resources for village halls to promote energy efficiency.

Most village halls which responded had some kind of energy efficiency measures installed already, and would be willing to install more, providing they were cost-effective.

#### 18.2.2 Churches

The churches and other faith communities have an understanding of the earth, its people and the environment which lead them to support actions to use its finite resources more responsibly, and to promote actions which help the poorest, by reducing fuel poverty.

Some individual churches said they would be willing to promote energy efficiency, but almost half of the responses from churches indicated that they would not, either because they do not see it as their role, because they think parishioners are probably already aware, or because they don't have the resources to do this in addition to their other activities.

As would be expected, most of the respondents' churches were old buildings with less scope for energy efficiency measures than modern buildings. One respondent pointed out that their church was a listed building and had other maintenance requirements which had to be funded. It is likely that many churches

face the same issue; they have many maintenance demands which have a higher priority than energy efficiency.

#### 18.2.3 Other community groups

The community groups which responded to the questionnaire said they would be interested in promoting energy efficiency in their community. Two of the community organisations that responded have buildings in which they let out space to other groups, which could be an opportunity to lead by example as they have a constant stream of visitors to the building. Both of these were keen to improve the efficiency of their buildings, although one said it could not afford to make changes. However, this respondent is planning to fund a new building in the next few years.

#### 18.2.4 Barriers and opportunities

Overall, the main barriers and opportunities identified were as follows:

#### Barriers

- Community and charitable organisations are normally pressed for resources in terms of volunteer time and funds to undertake their core activities, and so often view energy efficiency as something that someone else does.
- These groups often lack funding to install measures or to run additional events.
- Much of the work in this sector is done by volunteers who have limited time to devote to anything but their core activities.
- County and district councils' village hall grants are being cut.

#### **Opportunities**

- In general, groups would like to improve their buildings and in several cases to make their building into an exemplar of energy efficiency.
- Community and charitable sector groups have a wide range of contacts within the community and this provides an under-used opportunity to disseminate energy efficiency advice.
- Village halls are good at undertaking projects where part of the funding is available: for example if half of the cost of an energy survey is provided, they can find match funding.

#### 18.3 Conclusion: Community and charitable sector

While community and charitable sector groups' direct  $CO_2$  emissions are not known, they are likely to be small compared to the other sectors. However, it is their contact with the wider community that make them well placed to influence the carbon emissions of others. Those groups that own their own building can use it as an example of energy efficiency best practice. Those that do not can use their contacts within the community to disseminate energy efficiency advice. However, this sector is pressed for resources and needs support to realise the potential opportunities.

# **19 APPENDIX 8: GLOSSARY**

B, D & P	Bournemouth, Dorset and Poole
BERR	Department for Business, Enterprise and Regulatory Reform (formerly DTI)
BREEAM	Building Research Establishment's Environmental Assessment Method, on
	which the Code for Sustainable Homes is based.
BREW	Business Resource Efficiency & Waste Programme
CAfE	Community Action for Energy
CERT	Carbon Emissions Reduction Target
CLG	(Department of) Communities and Local Government
CO <sub>2</sub>	Carbon Dioxide
CSH	Code for Sustainable Homes
DA21	Dorset Agenda 21
DCA	Dorset Community Action
DEAC	Dorset Energy Advice Centre
Defra	Department for Environment, Food and Rural Affairs
DTI	Department of Trade and Industry (now known as BERR)
EAC	Every Action Counts programme
EE	Energy Efficiency
EEC	Energy Efficiency Commitment
EST	Energy Saving Trust
ESTAC	Energy Saving Trust Advice Centre
FPAG	Fuel Poverty Advisory Group
FSB	Federation of Small Businesses
FTE	Full Time Equivalent worker
GVA	Gross Value Added
HECA	Home Energy Conservation Act
HMO	Houses in Multiple Occupation
kWh	Kilowatt hours
LA	Local Authority
LAA	Local Area Agreement
LDF	Local Development Framework
LSP	Local Strategic Partnership
MAA	Multi Area Agreement
MtC	Million tonnes of carbon (tonnes of carbon are converted to tonnes of carbon
	dioxide by multiplying by (44/12)
MtCO <sub>2</sub>	Million tonnes of carbon dioxide
MWh	Megawatt hours
Ofgem	Office of Gas and Electricity Markets
RegenSW	The South West Region's sustainable energy agency
RSL	Registered Social Landlord
RSS	Regional Spatial Strategy
SAP	Standard Assessment Procedure, a measurement of the energy cost of a
	dwelling
SME	Small to Medium Enterprise
SW RA	South West Regional Assembly
SW RDA	South West Regional Development Agency
WRAP	Waste and Resources Action Programme