

An illustration of a schoolyard scene. In the background, there's a grey city skyline. In the middle ground, a child in a blue shirt is near a wind turbine, and another child is in a wheelchair being pushed by a woman in a green dress. A boy in an orange shirt is running with a globe. In the foreground, a girl in a red shirt is holding a large green banner. To the right, a teacher in a grey suit is talking to two children, a girl in a blue dress and a boy in a blue shirt. A school building with a red door and several windows is in the background.

Climate change and schools

A carbon management
strategy for the school sector





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Foreword



Climate change is one of the biggest challenges that we will face in the 21st century. There is no doubt over the science – the continued release of greenhouse gases will lead to severe changes in the earth’s climate.

Climate modelling gives us insights into future UK weather patterns. We know that sea levels will rise. There will be severe weather events, and a general pattern of hotter summers and wetter winters. As MP for Hull North, I have seen the impact of flooding of schools and take the climate projections extremely seriously. I was therefore delighted to oversee the publication of the DCSF’s first climate change adaptation plan this year – part of our 2010-12 Sustainable Development Action Plan.¹


¹ DCSF Sustainable Development Action Plan,
www.dcsf.gov.uk/aboutus/sd/department.shtml

We should not be passive in the face of climate change. The UK Government is at the forefront of international efforts to secure binding global commitments to reduce greenhouse gas emissions and is determined to show leadership at home. For our own part, DCSF has benefitted from a Zero Carbon Taskforce that has recently provided advice on how to ensure that our schools capital programmes are at the cutting edge of low carbon building design. The work of the Task Force is extremely timely in that it coincides with the Department adopting its first carbon budget – an emissions allocation which DCSF and the school sector must not exceed.

Schools have a special role to play in reducing emissions, a role that goes beyond their contribution to national emissions. Through the curriculum and through their practices, they can set an example to today's children and young people, who will be the vanguard of tomorrow's green economy. Schools can set an example in almost every community in the country, helping all of society to visualise and realise a low carbon future.

To achieve ambitious levels of emissions reductions, we need to see many people and organisations acting together. No one organisation can do it alone. Schools, local authorities and government will need to share a vision of a low carbon school sector, and work with private and third sector delivery partners to achieve it. There needs to be strong leadership and clear ownership of actions to reduce emissions.

We face a huge challenge, but it is an exciting one, one which will shape the future of our society and influence the lives and choices of coming generations.



Diana Johnson
Parliamentary Undersecretary of State for Schools

Section 1: Vision and strategy



About this document

- 1 This Carbon Management Strategy for the school sector has been issued by the Department for Children, Schools and Families (DCSF). It is the first document of its kind, and seeks to provide a roadmap by which those working and studying within the school sector can begin to radically reduce the emissions of greenhouse gases from schools and school related activity. It builds on our 2009 carbon reduction options consultation and we are grateful to all those who responded (Annex B sets out a summary of consultation responses).
- 2 The strategy is not just about what the Government will do. It sets out proposals for what local authorities, schools and others can do to reduce emissions, reflecting the fact that action is required by all those working in the sector. This strategy has therefore been written for a wide audience, and will be of particular interest to:
 - head teachers, bursars and school business managers, sustainable schools leads;
 - local authority school finance officers, energy managers, asset managers, travel advisers, procurement experts and sustainability/climate change leads;
 - third and private sector organisations providing services to schools who can reduce schools energy consumption, promote sustainable travel options and encourage low carbon procurement by and on behalf of schools.

3 The strategy is not intended to be a detailed 'how to' guide, although many helpful sources of practical guidance are listed at Annex A. Instead it seeks to set out an overarching approach to change in the sector. By providing individual chapters on the role of schools, local authorities and the DCSF, it also enables easy reference of the proposed actions for those separate organisations.

Definitions and scope

4 A carbon footprint is most commonly defined as the total set of greenhouse gas (GHG) emissions caused directly and indirectly by an individual, organisation, event or product². It is labelled a carbon footprint as commonly the total GHG emissions are converted to CO₂ equivalent (CO₂e) emissions. This strategy addresses greenhouses gases and all figures are expressed as tonnes of CO₂ equivalent.

What scale of action is required?

5 Global action to reduce greenhouse gas emissions is required on an urgent basis and emissions from the school sector matter. Schools account for around 2% of UK greenhouse gas emissions, roughly the same as all the energy and transport emissions of Manchester, Newcastle and Bristol combined. This is equivalent to 15% of the country's public sector emissions.

6 The 2008 Climate Change Act requires the UK to reduce its greenhouse gas emissions by at least 34% below 1990 levels by 2020 and by at least 80% by 2050. We see no reason why emissions reduction in the school sector should not achieve or exceed these targets.

7 This does not mean that there should be a 34% reduction in emissions from all sources. For energy use in schools, we are setting a higher emissions reduction target of 42% against 1990 levels by 2020 and, because schools' energy use has gone up since 1990, this equates to a 53% cut on current emissions.

8 Modelling suggests that as a result of our planned building programmes, emissions from energy use in school buildings are likely to fall by 44% compared to 2006 levels without the additional measures set out in this report. This gives us confidence in setting a challenging 53% energy target. However, our achievement of this target relies on consistent and successful delivery of the major capital programmes (Building Schools for the Future and the Primary Capital Programme), tightening building regulations, and, in the case of new-build secondary schools, the achievement of challenging carbon standards. It will also depend on schools using energy more efficiently.

9 This energy target underpins the public sector element of the DCSF carbon budget, further details of which can be found in the DCSF Sustainable Development Action Plan 2010-12³.

2 See Carbon Trust, www.carbontrust.co.uk/cut-carbon-reduce-costs/calculate/carbon-footprinting/Pages/carbon-footprinting.aspx

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- 10 Domestic transport currently contributes a fifth of total UK greenhouse gas emissions and the Government has set out plans in *Low Carbon Transport: A Greener Future*⁴ to reduce travel emissions by 14% on 2008 levels by 2020 through measures such as improved vehicle efficiency and the use of bio-fuels. This will reduce emissions for the schools sector as well, but we think that through concerted action, it will be possible for the sector to go further and would like to see emission levels moving as close as possible to a 34% reduction on 2008 travel emission levels by 2020. By that time, we would also like to see children that live within walking and cycling range of their schools avoiding car use and adopting these active travel modes.
- 11 Progress in reducing emissions from the overall transport sector will be monitored in the future through a combination of indicators; details of this 'indicator pyramid' can be found in the Department for Transport's carbon reduction delivery plan at www.dft.gov.uk/pgr/sustainable/climatechangeplans. Our contribution to this pyramid is a measure of the total distance travelled from pupil home to school, by travel mode. We will use this indicator as a key measure of progress and work to ensure that overall emissions from home-school travel are reduced, principally through change of travel mode.

- 12 Many respondents to our consultation considered procurement to be an area where significant emissions reduction can be achieved. Our ambition is to see 2020 emissions levels from sector procurement reflecting the national carbon target, i.e. 34% lower than 1990. This will require a 20% cut in current terms after factoring in the continued improvement in the efficiency of manufacturing industry and a projected increase in the emissions resulting from school capital building programmes. We will, however, be keeping the level of ambition under review to reflect our growing knowledge about the potential of the sector to reduce emissions through procurement, and to reflect the actual levels of procurement activity in the sector.

Our vision for a low carbon school sector

- 13 By 2020, most secondary schools and many primary schools will have benefited from either low carbon or zero carbon new build, or from refurbishment projects that reduced their carbon footprint. Some will also have benefited from specific targeted energy efficiency retrofit measures undertaken to address the most wasteful aspects of the buildings and equipment.

3 DCSF Sustainable Development Action Plan, www.dcsf.gov.uk/aboutus/sd/departments.shtml

4 Low Carbon Transport: A Greener Future, www.dft.gov.uk/pgr/sustainable/carbonreduction/

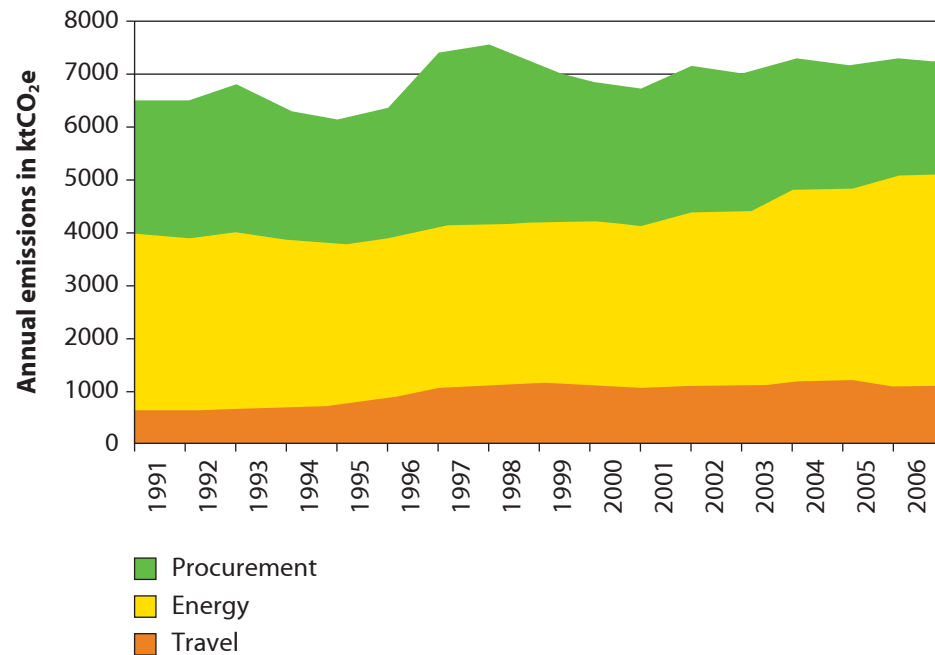
- 14 We envisage a growing presence of renewable technologies on school sites, with schools exporting surplus energy to the national grid and generating funding through feed-in tariffs and renewable heat incentives.
- 15 We anticipate more children and staff travelling to school by walking and by bike, facilitated through improved active travel infrastructure and through increasing parental, pupil and school staff awareness of the benefits of active travel.
- 16 We will see schools recycle or compost a wide range of their waste and, in some cases, acting as hubs for community recycling schemes.
- 17 Inside the school buildings, we will find staff who are aware and mindful of the fundamentals of energy saving and individual members of staff who are responsible for monitoring energy use and ensuring money and carbon are not wasted through unnecessary energy usage.
- 18 We envisage school staff, and those procuring goods and services on behalf of schools, making sustainable procurement choices as a first choice option, with sustainable procurement made easy and cost effective for schools.
- 19 We will meet pupils who not only learn about climate change in the curriculum, but who are also empowered to act on climate change, both within the school by reducing emissions and in their home environment.
- 20 Behind these changes in schools will be changes in the ways people work within the wider sector:
 - local authorities, Government, schools and governors working together in a co-ordinated delivery chain to ensure that resources are made available and used effectively to reduce emissions and that other forces for change are well aligned;
 - children's services departments in local authorities recognising the strategic importance of reducing emissions in schools and working with schools and colleges within the authority to achieve this goal;
 - schools gaining a clear understanding of what they can do and who can help them;
 - there being a sustained focus on capacity building at all levels.
- 21 Sections 3 to 5 set out our plans for how we can work towards this vision.

Section 2: Our carbon history



- 22 Greenhouse gas emissions from the schools sector are divided into four main sources:
- the use of energy in school buildings;
 - pupil and staff travel to and from school, and other journeys undertaken on school business;
 - emissions produced by companies that supply goods and services to schools, for example, for a school food provider, this could include emissions related to their use of energy to run their buildings and produce their food products, as well as the emissions associated with transporting their products to school sites;
 - emissions from waste produced by schools.
- 23 In 2006, schools' greenhouse gas emissions stood at 7.3 million tonnes of carbon dioxide equivalent (mtCO₂e).
- 24 We tend to discuss greenhouse gas emissions related to a 1990 starting point; this is the date used in the major international climate change agreements, such as the Kyoto Protocol, and it is useful for us to see how emissions have changed in the schools sector since then.
- 25 In 1990, the schools carbon footprint totalled around 6.5 mtCO₂e. This means that schools' emissions increased by 12% overall in the period from 1990 to 2006.
- 26 The chart below shows how the total schools carbon footprint has changed over time:

Schools carbon footprint: segments over time



27 Behind these broad trends in emissions sit contributory factors:

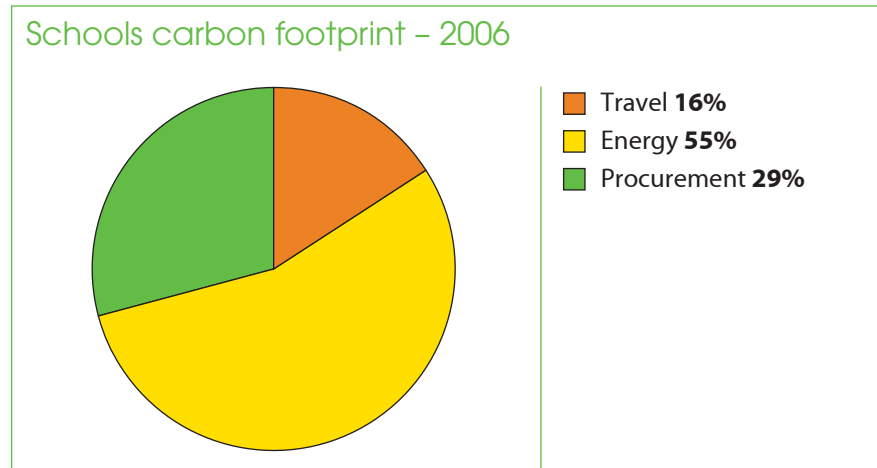
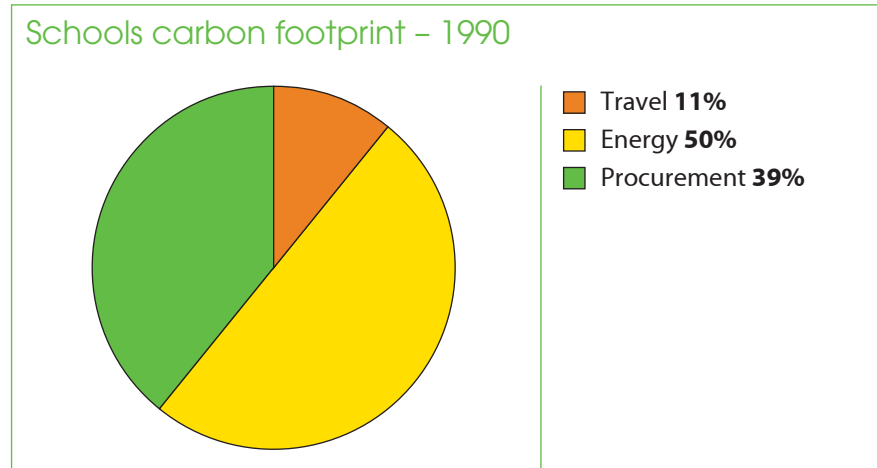
- emissions from total energy use in school buildings increased by 24% between 1990 and 2006, with emissions from the use of gas to heat school buildings increasing in line with this figure. Emissions from oil and coal used in schools rose more slowly, by 10%, while emissions from electricity use increased by 31%;
- we can surmise that the increase in electricity consumption has in part been due to the computerisation of our schools, with widespread and important roll-out of information and communications technologies (ICT). The increase in electricity consumption and the rising demand for heating have also been partly related to the extension of school hours, putting greater demand on school lighting and heating systems into the evenings and at weekends;
- emissions from school travel and transport increased by 59% between 1990 and 2006. This is the largest percentage increase within the carbon footprint, although school travel remains only a small proportion of the overall total;
- journeys to school have lengthened; the National Travel Survey⁵ suggests that the distance of pupils' home to school journeys has increased by 25% since 1990;

5 National Travel Survey, www.statistics.gov.uk/ssd/surveys/national_travel_survey.asp

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- the use of private cars for school commutes has also increased; by 2006, private cars accounted for 41% of primary and 20% of secondary school journeys, up by more than 40% since 1990;
- emissions related to the products and services bought by schools have reduced by 17% since 1990, although you will see from the chart above that they are the most volatile part of the carbon footprint. The way that products and services are made and provided has become more efficient in recent years, with large scale industry-wide agreements on emissions and the need for business efficiency driving down energy use (and therefore carbon emissions) in manufacturing sectors.

28 The pie charts to the right show how the different constituents of the schools' carbon footprint have changed over time. Procurement has become less significant, whilst both energy and travel now make up a greater proportion of the whole.



Why has DCSF reporting of the schools carbon footprint changed?

Many people in the school sector will be familiar with the carbon footprint that we published with the Sustainable Development Commission in *Carbon emissions from schools: where they arise and how to reduce them* in 2008 (see www.sd-commission.org.uk/publications.php?id=765). This was for a baseline year of 2004 and has some significant differences to the footprint published here.

The main differences are:

- Most notably, **size of the procurement carbon footprint**: the previous study included emissions related to state expenditure on education **and** household expenditure on education. For example, it would have included a school uniform purchased by a parent for their child. This study only includes state expenditure on education. This footprint also resolves an earlier error where UK-wide figures were calculated rather than England only. Improvements to the underlying carbon model also make a difference.
- **Changes to the transport footprint**: the 2004 study used pupil mode of travel data from a combination of the National Travel Survey and data gathered from schools. The revised footprint uses only the National Travel Survey data which has a more consistent data gathering approach over time.
- **The energy footprint** has been updated with both top-down National Statistics data and bottom-up energy data from schools as reported to DCSF

Further information on the carbon footprint methodology used by Stockholm Environment Institute, who produced both versions of the schools' carbon footprint, can be found at www.teachernet.gov.uk/sustainableschools/



Section 3: Action for schools



Playing their part: the role of schools

29 Schools have a special role to play in reducing emissions, a role that goes beyond their contribution to reducing national emissions. Through the curriculum and through their practices, schools can set an example to today's children and young people. By engaging children in action to reduce emissions, schools can enhance children's learning and build their understanding of how they can respond to climate change.

"All children and young people must be thoroughly immersed in understanding – and taking action for – climate change and environmental sustainability, through the curriculum (aims and content) and how they learn, and through the broader operation of schools and links to the local community."

Consultation response, environmental charity

The case for action

- Many pupils hold strong concerns about climate change⁶, and they are right to do so. Current projections⁷ indicate that the impact of climate change will grow over the course of this century and it is they and their children, rather than present day adults, who will face the most significant impacts.

- Saving energy saves money, and helps demonstrate that the school is providing value for money. Schools spend over £400m on energy each year, with secondary schools commonly receiving bills in the order of £60,000. With predictions that energy prices will rise in future years, and the introduction of the CRC Energy Efficiency Scheme⁸ also creating financial incentives for energy reduction, there are sound budgetary reasons for addressing carbon reduction. Case study evidence suggests that an average secondary school could save up to 20% off its energy bills through replacement of heating, lighting and cooling equipment, a saving of around £12,000 each and every year.
- Reducing emissions by adopting active modes of travel (cycling, walking) has significant health and wellbeing benefits and helps reduce costs to both parents and local authorities.
- Through acting on their emissions, schools can demonstrate to parents, the wider community, and Ofsted that the school has caring values and does not waste resources.

Setting the scene

The majority of schools are already taking some form of action to reduce their carbon emissions⁹. Nearly all schools have produced a School Travel Plan, and many are taking action to encourage low carbon forms of travel, such as cycling and walking. A large proportion of schools are participating in accredited schemes offered by a range of organisations¹⁰, while others have taken up the free energy surveys on offer from the Carbon Trust¹¹ (for schools with energy bills over £50,000). DCSF is also offering a free display energy meter to every school that wants one (see www.energydisplaymeter.co.uk), and over 6,500 schools registered their interest in this offer in the first week of the scheme.

6 See the Children's Statement on Climate Change: www.teachernet.gov.uk/publications

7 UK Climate Impacts Programme, see www.ukcip.org.uk

8 The CRC Energy Efficiency Scheme is a carbon trading scheme which encompasses local authorities. Schools are included within the local authority estate for the scheme. Under the CRC Energy Efficiency Scheme, authorities (and their schools) will have to take action to reduce emissions from energy use, receiving rewards if they reduce emissions and facing financial penalties if emissions increase. For more information, see: www.decc.gov.uk/en/content/cms/what_we_do/lc_uk/crc/crc.aspx

9 The DCSF Framework for Sustainable Schools sets out how schools can adopt sustainable practices. DCSF holds the ambition that all schools will be sustainable schools by 2020 (www.teachernet.gov.uk/sustainable-schools/index.cfm). Action to reduce carbon emissions can contribute to a number of the eight doorways within the Sustainable Schools framework.

10 See the following for information on national recognition schemes www.teachernet.gov.uk/_doc/13467/Mapping%20Guidance1.pdf

11 Carbon Trust, www.carbontrust.co.uk

Adopting the right approach

30 For most schools, playing their part will mean building on progress to date and moving to the next level by increasing the degree of organisation and priority placed on carbon saving. This will entail:

- **making a commitment to reduce carbon emissions**, publishing this in the school ethos and policies and ensuring it is part of discussions with governors and amongst school leadership teams. Some carbon emissions are very much within the control of the individual school, particularly those related to energy use and those arising from journeys made on school business. A clear commitment to reduce emissions will help to lay out the school's priorities; it can also be reviewed and reinforced over time to maintain momentum.
- **understanding the business case for carbon reduction**, that is, the costs of different actions, the financial savings that might be realised by the school or by parents and the case for taking action. Schools must provide value for money and should be aware of how they can save money while reducing emissions.
- **recognising the role that different school staff can play in reducing emissions**. The table below summarises the roles of different individuals/groups within the school community. Change is not dependent on all of these taking action – even one person can make a difference – but the more people that can act in a co-ordinated fashion, the more effective the result, and the more likely that action will be sustained.
- **empowering individuals**. While the most effective approaches will involve more than one individual, it will be important to ensure that someone is *responsible* for leading and maintaining progress. This could be for carbon reduction in the round or for a specific element such as energy reduction. In many schools where there is a lead staff member, their designation has resulted from their personal commitment. While recognising that enthusiasm is a valuable benefit, it is not enough in itself. The individual will need strong backing by the leadership team and carbon reduction must be accorded the necessary status to ensure that others listed in the table above take note and engage. Making sure that those participating in carbon reduction projects have access to information, training and opportunities to network will also be important.

<p>Head Teachers Head teachers need to visibly endorse action to reduce carbon emissions. They don't need to do the work themselves, but without their support it is unlikely that sustainability will be embedded in the school.</p>	<p>School Leadership Team The School Leadership Team needs to actively support sustainability, including reviewing progress as part of SLT meetings, and providing support and status to those running projects within the school.</p>
<p>Pupils Pupils are both the most significant users of the building and the most enthusiastic about change. They can also drive change, communicating with fellow students, monitoring progress, celebrating successes and organising events, e.g. inter-class room competitions or whole school 'lights off' days.</p>	<p>Teachers Teachers help drive and embed behaviour change through integrating learning about this area into teaching, both at a theoretical and practical level. They can also be role models in changing behaviour, for example, by cycling or walking to school.</p>
<p>Bursars/Business Managers Bursars/Business Managers oversee school budgets and expenditure and are likely to be concerned with energy bills. Along with the Head, they will liaise with Governors and may be the key contact for Local Authority Energy/Sustainability Managers.</p>	<p>Building Managers/Facilities Managers/Caretakers/ICT Technicians A highly important group of people, who need to be experts in managing heating, lighting and other systems, and training users of the building. These groups are often active in equipment specification and liaison with suppliers, and may be the key contact for Local Authority Energy/Sustainability Managers.</p>
<p>Governors Governors are an important influence on SLT priorities and budgets and will reinforce action if sustainability becomes a regular update at governors' meetings.</p>	<p>Catering and cleaning staff Another vital group, whose decisions have a big impact on a school's use of energy and management of waste, as well as making a difference to procurement-related emissions.</p>
<p>Parents, families and the wider community Parents, families and the wider community can be inspired to take action themselves by the work of the school and, in turn, add energy and enthusiasm to the work the school is doing.</p>	<p>Local and regional government Local authorities and regions give expertise and time to schools to both inspire and facilitate action. Local authorities are important in sharing best practice between schools and are the source of expertise most frequently used schools.</p>

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- **linking action to reduce emissions with the curriculum**¹².

The secondary curriculum programmes of study in geography, citizenship, science and design and technology all address aspects of sustainable development. Sustainable development is also a cross-curriculum dimension and, as such, is a unifying theme that helps learners make sense of the world and their place in it.

Linking what is taught in the classroom to carbon reduction activity under way in the wider school environment can also build momentum for change through pupil leadership and involvement.

(A) Reducing emissions from school energy use.

31 Energy use in school buildings is very much under the control of the individual school. Many schools have already taken action to reduce their energy use, by installing low carbon or renewable energy systems, by making improvements to their heating or lighting systems, or by changing everyday behaviour around how energy is used.

32 Effective approaches to reducing energy use will entail:

- **understanding how energy is used within the school.**

Every school should know how much electricity it uses, alongside other fuels for heating and hot water. Schools also now need to provide this information to their local authorities as part of the CRC Energy Efficiency Scheme¹³.

Looking at, and understanding energy bills is the first step – are they accurate and based on actual meter readings? Is energy up or down compared to the previous year?

Larger schools will also be able to use their Display Energy Certificate¹⁴, produced annually, to compare their energy use to national averages and to see how energy use has changed from the previous year.

12 Sustainable Development in Action – A curriculum planning guide for schools, QCDA, 2009: http://curriculum.qcda.gov.uk/uploads/Sustainable%20development%20in%20action%20-%20a%20planning%20guide%20for%20schools%20%28in%20full%20colour%29_tcm8-14475.pdf

13 The CRC Energy Efficiency Scheme is a carbon trading scheme which encompasses local authorities. Schools are included within the local authority estate for the scheme. Under the CRC Energy Efficiency Scheme, authorities (and their schools) will have to take action to reduce emissions from energy use, receiving rewards if they reduce emissions and facing financial penalties if emissions increase. For more information, see: www.decc.gov.uk/en/content/cms/what_we_do/lc_uk/crc/crc.aspx

14 Display Energy Certificates, www.communities.gov.uk/planningandbuilding/theenvironment/energypowerperformance/publiccommercialbuildings/displayenergycertificates/

When people have easy access to information about their energy use, demand often falls. We are therefore investing £12million in 2010-11 to ensure that energy display meters are available to maintained schools in England. A display meter will help you to see how much electricity is being used in your school at any given time, compare how your electricity use has changed over days, weeks or months, set targets and measure how well you are doing. Measuring progress helps make the effects of change visible to the school community and provides opportunities for celebrating successes. For more information or to register interest, visit www.energydisplaymeter.co.uk. Many thousands of schools have already signed up to participate in the scheme.

Schools can also take advantage of energy audits and surveys. If your combined annual energy bill is over £50,000, you can access a free survey from the Carbon Trust. For smaller schools, your local authority may be able to carry out a survey at little or no cost to you. An energy survey will give you more detailed information about your school building, the different systems that you have, how energy is used in your school and how you can make changes to reduce your energy consumption. Visit www.carbontrust.co.uk/schools or call 0800 085 2005.

- **making sure you know how to use the energy systems in your building.** Simply knowing how to manage heating or lighting controls can slash energy wastage, save money and reduce emissions. Your local authority or the Carbon Trust may be able to advise you on simple building management techniques to help you save energy. If your heating or lighting system is relatively new, talk to the company that installed it to make sure that you are using it effectively.

“Educating people properly on how to use the school buildings is just as important as the build.”

Consultation response, local authority

- **sharing information with pupils and school staff,** encouraging and rewarding ideas and activities which will reduce energy use. Teachers can bring energy information into lesson plans, most obviously within science or maths lessons. Engaging pupils with meter readings, energy management statistics and comparisons of numerical data helps them not only to improve numeracy skills but also to develop their own understanding of energy and how it is used, an understanding which can go on to influence longer term behaviour both at school and in the home. Equally, many school energy schemes have been devised and are managed by pupils themselves, making the most of their enthusiasm and creativity.

- **adopting energy saving behaviours**¹⁵. Starting with the basics is a good approach, e.g. switching off lights and electrical equipment when not in use. Many schools have groups of 'eco-champions', who check at the end of each day for equipment or lights that have been left on, switch them off and place penalties (e.g. a 'red-card') on the staff responsible. Again, this type of engagement and self-management by pupils can deliver powerful educational impacts.

Some important changes will require a basic element of technical knowledge – for example, how to use the heating controls in a classroom or manage energy used for ICT across a building. Again, your local authority or The Carbon Trust may be able to advise on energy systems, whilst Becta offers a range of guidance on reducing your school's ICT carbon footprint¹⁶.

It will also be important to recognise success. Where monitoring shows that a difference has been made, then celebrate and help to maintain enthusiasm for going further.

Behavioural activities to promote sustainable energy use, Ashley Church of England Primary School, Surrey

In 2008, Ashley School started the '100 Club' as a challenge to reduce electricity consumption using the data provided by the school's monitoring system, ecoDriver. The three teaching blocks have weekly consumption targets, and collectively the challenge is to keep the school's consumption below 100 kWh per day. If the school manages to do this over a whole week, pupils are rewarded with £10 from the headteacher; the School Council then decides how this money is spent.

The school has extended its efforts to the wider community with pupils' families engaged in the school's Carbon Countdown Challenge to keep energy consumption at less than 100 kWh per week in each home.

Extract from: 2009 Schools Ashden Awards case study. The Ashden Awards for Sustainable Energy. 2009. www.ashdenawards.org/winners

15 Sustainable Schools: Top tips to reduce energy and water use in schools, <http://publications.teachernet.gov.uk/default.aspx?PageFunction=productdetails&PageMode=publications&ProductId=DFES-00369-2007>&

16 Becta, http://schools.becta.org.uk/index.php?section=re&catcode=ss_res_env_02

- **investing in energy efficiency and renewable energy.**

Where schools have gained access to energy advice from the Carbon Trust, local authority or other party and have identified the benefits of making changes to buildings or equipment, they will need to establish how to fund these improvements.

Schools can use **Devolved Formula Capital** to improve energy efficiency and DCSF encourages this approach – not least because of the savings to school overheads.

Alternatively funding may be available through the local authority, especially in those areas where local authorities have accessed Salix loan funding. Under this scheme, energy bill savings realised are used to repay the loan (commonly taken out by the local authority) meaning schools do not face any costs.

A school may also be participating in one of the major capital programmes, Building Schools for the Future, the Academies programme or the Primary Capital Programme. We are taking steps to ensure that every school built or refurbished within these programmes is a low carbon school; our efforts will be made even more effective if the school management team itself holds expectations that new and refurbished school buildings are created to the best carbon standards, and that these buildings are then used and managed effectively.

By making sure that our new schools are built to challenging carbon standards – and then used efficiently by staff and pupils – could reduce our energy emissions by over 20% by 2020.

And getting planned refurbishment right within BSF and PCP could save another 22%, putting us well on our way to our ambition of a 53% reduction by 2020.



- **sharing your experiences and ideas with others¹⁷.**

A school acting on its own to reduce energy use can often find itself feeling isolated or uncertain of what steps to take next. People are often most inspired when they see what others have done, on site and face to face.

Schools should work together and with local authorities to share resources, ideas and expertise related to energy management. Your local authority energy management team are likely to be on hand to support you. Working with other schools will help you to identify new and potentially shared opportunities which would not necessarily be justified by one school alone.

¹⁷ **Inside Knowledge** visits will allow schools to see how their peers have started to embed sustainability in the whole ethos of their school. Hosts offer visits based on the different parts of the National Framework where they have good practice, but will also learn from others' experience.

(B) Reducing emissions from school travel and transport

33 School travel consists of three types of journey:

- pupils' travel to and from school (46% of travel emissions);
- staff travel to and from school (12% of travel emissions);
- journeys on school business (42% of travel emissions).

34 We want to see schools at the forefront of active and sustainable travel, but we acknowledge that there is a long way to go. Emissions have risen significantly over the past twenty years and we will have to work hard if we are to achieve the reductions that we need.

35 Some schools and local authorities have already made great progress in encouraging sustainable and active modes of travel. For example, evidence from Merseyside shows that 48% of parents whose children have received Bikeability training are more willing to allow their children to cycle, and 17% of those receiving training have since cycled to school. The challenge persists, however, and over the next ten years, we would like to see all schools aspiring to the standards of today's champions.

36 Travel and transport are very much locally specific issues, so there is no 'one size fits all' approach, but successful approaches will entail:

- **a whole school ethos.** A culture of sustainable travel needs to be promoted and rewarded across the school. Children, young people and staff who have made a change where others have not are likely to become disillusioned without recognition. Many in the school are unlikely to act unless they are encouraged to do so and unless expectations are established. Simply choosing a more efficient minibus or coach to hire, or choosing to travel on an excursion by train rather than plane, helps to set expectations about the modes of transport that are acceptable.

A whole school approach – made real through the School Travel Plan – can also provide excellent opportunities for learning activities, ranging from data gathering, to geographical mapping of potential cycling/walking routes, to producing posters and campaigns to encourage more sustainable modes of travel.

- **making the most of School Travel Plans**¹⁸. By March 2010, all schools should have a School Travel Plan. These should be living documents with actions put in place at local level to encourage children and school staff to travel to school by more sustainable modes.

To enable schools to gauge how their pupil travel compares with other local schools, we will publish annual School Census pupil travel data. We encourage schools to look at this data and learn from the approaches used by those schools that are demonstrating a change to more sustainable travel. From 2013, we will also be gathering data on school business travel and, again, we will make this information available to show schools how their travel emissions and costs compare to others. Schools with high emissions and corresponding costs should consider how reductions can be made.

- **taking part in national and local programmes and activities – or creating your own.** Many schools already take part in national programmes – such as Bikeability cycle training, Bike It and Walk to School campaigns¹⁹ – and we would like to encourage everyone to participate as far as possible. While involvement in these schemes is important, schools also need to move from ‘occasional’ campaigns to a more consistent programme of activity throughout the year, looking to make active and sustainable travel a habit rather than a ‘one-off’. For example, Sustrans’ Bike It programme has worked directly with over 700 schools, improving children’s skills and confidence and doubling levels of cycling. For more information, see www.sustrans.org.uk/bikeit.

Locally generated projects can be extremely powerful and can often be supported by funding from local authorities or through Sustrans. The Links to Schools programme provides grants to develop walking and cycling facilities and secure cycle storage.

Refurbished bike scheme and cycling club, New City School, Newham

By fixing up old bikes found at the local dump and raising money to buy new ones, the school now has around 400 bikes. Children can hire the bikes for £5-£15 per year and 200 of the bikes are now out in the community. The school also holds a weekly cycling club with 80 to 100 children attending every Saturday as well as 30 to 40 adults.

There has been a 7% reduction in car use and 5% increase in cycling at the school.

Extract from: Creating Sustainable Schools in London: a case study, Government Office for London, 2007. www.gos.gov.uk/497417/docs/199952/605390/Creating_Sustainable_School1.pdf

¹⁹ Bikeability: www.bikeability.org.uk; Bike It: www.sustrans.org.uk/what-we-do/bike-it; Walk to School: www.walktoschool.org.uk

- **working with the local authority.** Many decisions about cycling and walking routes and traffic management systems are taken by local authorities, based on local needs. Schools should work with their local authorities – potentially through the Sustainable Modes of Travel Strategy production process – to try to identify solutions which will make sustainable modes of travel easier for pupils and staff and to generate investment in infrastructure improvements.
- **spreading the message to pupils and parents.** It is often parents who make the decision about how their children will travel to school. Fears about traffic and stranger danger, plus parental concerns about timekeeping and the need to balance other activities (e.g. the commute to work) can make the car the default option. If parents have a better understanding of different routes to school, the time they take and the safety measures that have been put in place, then more children will walk or cycle to school. Some schools have already spent time working with parents to show them walking/cycling routes, to put up signposts and to establish ‘walking bus’ schemes, but all schools could pursue this approach. Sustrans runs a free national schools information service aimed at supporting schools, parents, pupils, local authorities and all those interested in school travel initiatives. See www.sustrans.org.uk/what-we-do/safe-routes-to-school.

Evidence from a number of case studies suggests that if ongoing cycling and walking promotion activities took place in half of our schools, we could see a 10% reduction in pupil travel emissions as parents and pupils opt for more sustainable and active modes of travel.



- **reducing emissions from business journeys during the school day.** There are many ‘hidden’ journeys taking place during the school day. These range from school minibuses travelling between sites/facilities to school trips and excursions, to journeys for meetings with governors or the local authority. These journeys need to be taken into account in School Travel Plans and actions taken to minimise their carbon impact.

This could entail combining journeys for more than one purpose, encouraging walking, cycling or use of public transport where appropriate, replacing gas-guzzling old vehicles with fuel efficient alternatives and making use of technology such as video or web conferencing to reduce the need to travel²⁰.

Staff who are driving minibuses can be supported by guidance or training on ‘smarter driving’ which has a significant effect on fuel efficiency, saving up to 15p in every £1 spent on fuel. For more information, see www.energysavingtrust.org.uk/Travel.

(C) Reducing emissions from school procurement

37 Not all goods and services used in schools are procured by the school itself. Action on sustainable procurement is required by local authorities and Government as well. But collectively, schools do have considerable purchasing power. Even individually, schools have the ability to stimulate markets, for example, specifying fresh seasonal fruit and vegetables, requiring packaging to be recyclable or reducing the number of deliveries per week to an area to reduce transport emissions.

38 All schools should:

- **formalise a commitment to sustainable procurement and act on it.**

“Each school should create a sustainable procurement policy and attempt to buy low carbon products from sustainable companies.”

Consultation response, primary school

You can place a commitment to sustainable procurement in your school’s ethos and policies. This could be in the form of a commitment to purchasing recycled goods or those produced locally, where possible. Many electrical and electronic appliances carry energy ratings (such as the A-G ratings on kitchen equipment or the Energy Star label on IT equipment), and a simple commitment to buy the highest rated equipment can send a clear indicator to the school community.

There is already a range of products and services available which schools should be purchasing as a matter of course. These include:

- recycled paper and stationery products;
- cleaning products with reduced environmental impacts;
- office machinery which is energy efficient (often denoted by the Energy Star label);
- kitchen equipment which is energy efficient (look for the A-G energy rating);
- vehicles which are fuel efficient (denoted by an A-M rating);
- water efficiency equipment.



More than half of the waste produced by schools is paper or card. There are some simple things that can be done: buying recycled paper, using paper wisely (only printing when necessary, printing on both sides), replacing paper communications with e-mail where appropriate, and making sure that any remaining waste paper is recycled. If these were standard practice across the school sector, we could see a reduction in carbon emissions of over 150,000 tonnes by 2020. That equates to over 7% of procurement emissions saved, from paper alone.

A valuable source of existing information about these products is the Defra *Buy Sustainable – Quick Wins* web page²¹. This provides a set of specifications for a wide range of products and is updated on a regular basis to ensure it reflects new products coming on to the market. Public sector buying organisations can often recommend specific products from a range of suppliers and the Educational Procurement Centres²² can also help to signpost you to different options.

Furthermore, we plan to develop a Sustainable Procurement Code for schools which will help you to identify:

- the products and services that are available now which can be adopted by schools;
- the likely availability of new low carbon products and services, so that schools understand what low carbon products will be available and when.

21 Defra Sustainable Procurement – Quick Wins, www.defra.gov.uk/sustainable/government/what/priority/consumption-production/quickWins/

22 Educational Procurement Centres, www.teachernet.gov.uk/management/epc/

School food accounts for 22% of the procurement carbon footprint. Opportunities to reduce the carbon impact of school food related to buying local and encouraging suppliers to provide fresh and seasonal produce. Some organic products are also less carbon intensive than non-organic foods. You can find out more about school food options that are both healthy and sustainable from the School Food Trust (www.schoolfoodtrust.org.uk).

Reducing emissions from procurement is not just about buying more efficient products. It is also important to consider whether the product is really needed by the school, using the product effectively and disposing of it appropriately. Buying only what you need can help to keep costs under control, minimise waste and demonstrate value for money.

CASE STUDY

Fewer Miles, Fresher Food, South Moreton School, Didcot

South Moreton School was the focus of a pilot project to source local food for school meals. Food was sourced from a local farm shop and a local butcher, 6 and 2 ½ miles away respectively. Three months after the trial began, meal uptake had increased by 17%, almost all the children liked the food and food miles had been reduced by 69% per week. Food costs reduced by 20% and stock control improved.

Extract from Fewer Miles, Fresher Food South Moreton School, Didcot. DEFRA. July 2005. www.defra.gov.uk/foodfarm/policy/publicsectorfood/casestudies/south-moreton.htm



Section 4: Action for local authorities



Playing their part: the role of local authorities

- 39 Public sector leadership in addressing climate change is critical to achieving UK targets. Local authorities are increasingly responding to this challenge by adopting a central role in securing emissions reductions from local communities.
- 40 Local authorities have important roles to play in helping schools to understand their carbon emissions, identifying opportunities for emissions reduction and catalysing school carbon saving activity. In most cases, local authorities are also the local hub of expertise on energy management, sustainable travel and sustainable procurement. Through their estates and asset management teams, authorities are able to improve the energy performance of school buildings and, increasingly, authorities are developing the financial models through which energy efficient, carbon saving capital projects are delivered.
- 41 In many cases, local authorities act on behalf of schools to purchase products and services and to provide facilities management services. This is frequently the case for school food, transport and construction services. Local authorities have tremendous purchasing power to reduce carbon emissions and, with support, can utilise this power to influence change in supply chains.

The case for action

- Working with schools to reduce emissions can help local authorities to fulfil their responsibilities under a number of national performance indicators (see box)²³. Commitments to sustainability and carbon reduction held in the Sustainable Community Strategy can be met through action in schools.
- In children's services authorities, energy efficiency in schools will largely determine the authority's performance within the CRC Energy Efficiency Scheme. Improving performance under the scheme is therefore contingent on reducing school energy use.
- Local communities will expect authorities, as community leaders, to support schools in reducing emissions.
- Two of DCSF's major buildings programmes – Building Schools for the Future and the Primary Capital Programme – place local authorities at the heart of work to improve school buildings and reduce carbon emissions.
- Securing an increase in children's active travel will have significant benefits for child wellbeing outcomes.

National Indicators related to reducing carbon emissions from schools:

- National Indicator 185 – CO₂ reduction from local authority operations – this relates to energy use and travel in local authority operations and includes schools as part of the local authority estate.
- National Indicator 186 – Per capita reduction in CO₂ emissions in the local authority area – this relates to carbon emissions in the wider community, encompassing travel to and from school.
- National Indicator 198 – Children travelling to school: mode of transport usually used.

²³ In 2009/10 35 local authorities were targeting progress on NI 185 in their Local Area Agreements, 100 authorities were targeting NI 186, and 32 targeting NI 198.

Setting the scene

From April 2011, local authorities will be participants in the UK CRC Energy Efficiency Scheme; a mandatory climate change and energy saving scheme offering both penalties and rewards in line with energy use. Schools are considered part of the local authority estate for the CRC Energy Efficiency Scheme and authorities are required to gather data on energy consumption from schools. This will present opportunities to identify energy saving opportunities within schools. Local authorities and schools will need to work closely together during 2010-11 to establish reporting relationships. More information can be found at: www.decc.gov.uk/en/content/cms/what_we_do/lc_uk/crc/crc.aspx

Many local authorities are working with the Carbon Trust to reduce their own emissions and are now extending this activity to reduce emissions from schools. To help fund energy efficiency improvements, local authorities can work with Salix Finance (www.salixfinance.co.uk) to establish loan funds; these funds are used to finance cost-effective energy efficiency measures with fuel bill savings being recycled into the loan fund and re-used on further projects. Some local authorities are beginning to bring schools into their own loan fund programme.

Local authorities have a duty to promote sustainable travel and transport. As part of this duty, they are each required to produce a Sustainable Mode of Travel Strategy (SMOTS) which assesses the travel and transport needs of children and young people, looks at the infrastructure available to help children travel to school more sustainably and identifies what further action is needed.

The LGA's Local Government Sustainable Procurement Strategy²⁴ outlines the commitment within the sector to encouraging and stimulating sustainable procurement activities.

Adopting the right approach

- 42 Local authorities hold many competing priorities, some cascaded from central Government, others originating locally. Carbon reduction across the school estate has not previously represented a strategic priority for most authorities and consequently has rarely benefitted from a concentrated focus.
- 43 This position is changing. Recognition of carbon within the National Indicator set and the creation of the CRC Energy Efficiency Scheme reflect the growing urgency of reducing emissions and the need to deliver on UK carbon targets. This focus will inevitably increase, with the reduction of public sector emissions at the forefront of expectations.
- 44 Local authorities should reflect the importance of carbon reduction in schools within key strategy and delivery documents, such as the Sustainable Community Strategy and the Children and Young People's Plan. In doing so authorities can also recognise the impacts on child wellbeing of carbon saving activity such as active travel.
- 45 An authority's impact will also be strongly affected by the extent to which there are clear arrangements for reducing emissions and identifiable lines of accountability. Responsibility for emissions reduction is often fragmented within authorities, with different teams looking at carbon reductions across different parts of the footprint. In some cases, it will be helpful to bring together colleagues from across different service areas, and there are many examples of local authorities making real progress by engaging children and young people's services with energy or facilities management, travel or procurement teams.



(A) Reducing emissions from energy use in school buildings

46 Many local authorities are already working closely with their schools to reduce emissions from energy use. Schools in Nottinghamshire have benefited from the roll-out of biomass/ wood-burning boilers to fulfil their heating and hot water needs, whilst many London schools have worked with their local authorities, regional Government Office and charitable partners to implement pupil-led behaviour change schemes.

47 Local authorities should:

- **adopt a strategic approach to improving schools' energy performance.** Local authorities need to gain a good understanding of the energy efficiency of the school estate (for example, by working with schools and the Carbon Trust to carry out energy surveys, or by analysing Display Energy Certificate recommendations) and develop an action plan for making improvements. Taking a view across the school estate in an area will enable a local authority to identify the best opportunities for action to reduce carbon. This may include measures that will be installed within the major capital programmes, as well as planned maintenance, ad hoc works and one-off projects based on specific grant funding. Strategies should also consider how procurement routes can best secure value.

- **utilise capital resources to target reductions.** Local authorities should seek significant carbon reductions from new and refurbished schools within Building Schools for the Future and the Primary Capital Programme, placing energy performance at the heart of capital programmes from the very earliest stages and safeguarding it throughout each project. Outside of these programmes, local authorities should look to make use of alternative funding to ensure that as many schools as possible benefit from energy, carbon and cost savings. Some authorities will have their own funding available for reducing emissions from energy use; others will be looking to secure funding from third parties such as Salix Finance, or by capitalising on incentives such as feed-in tariffs which reward small-scale renewable energy generation. There are also emerging models which engage the private sector in reducing schools' energy emissions. Local authorities can utilise their procurement expertise to explore Energy Performance Contracting, energy services approaches or facilities management contracts which reward energy efficiency.



Improving energy efficiency in existing schools is the biggest potential contributor to cutting schools' carbon emissions. Planned refurbishment work under BSF and PCP, if delivered to standard and with effective handover to building occupants, could reduce energy emissions by around 22% by 2020. Additional, highly cost-effective energy efficiency work – driven by schools and local authorities – could bring a further 10% reduction in emissions from those schools not involved with capital programmes.

- **make the most of the CRC Energy Efficiency Scheme.** DCSF has set out its intention to enable local authorities to pass on to schools proportionate costs and benefits incurred under the CRC Energy Efficiency scheme. The Government will not be mandating the formula for school allocation. Instead we urge local authorities to engage with school forums to agree ways in which the method for allocating penalties and rewards across schools, and the communication of those penalties and rewards, provides an incentive for schools to act. We do not recommend simply top slicing the area school budget as this is unlikely to act as an incentive to reduce emissions for individual schools. It will also fail to reward those schools who have taken action to reduce emissions.

- **support schools throughout their journey.** Local authorities should work with schools to help them realise the business case for improving energy efficiency or installing low or zero carbon energy technologies.

A growing number of local authorities have created Schools Carbon Reduction Officer posts, individuals who act as catalysts for school level action and who can provide co-ordination and information to assist both schools and authorities to reduce emissions. In many areas, the business case for these officers is based on the strength of the financial savings available from reduced spend on energy, food, transport and other services contracted through the authority. There are also examples of local authorities agreeing the top-slice of school budgets with schools in order to fund such posts.

The energy management team within a local authority can also act as a technical resource base for schools, offering support which may include energy audits, action planning, whole school engagement and support with gathering funding to finance improvements.

Schools will often be reliant on the local authority for technical expertise and practical ideas for implementing carbon saving activities. Local authorities should recognise that schools may not have expertise in-house, and that communications should be clear and straightforward to support schools in taking action.

There is also a role for local authorities in facilitating the sharing of information, resource and expertise between schools. Local authorities can help schools to understand how much they are spending on energy compared to other schools in the area and share good practice. Coordinating visits to schools which have made good progress or which have low or zero carbon energy technologies installed can be an excellent way to build capacity and motivate further action.

(B) Reducing emissions from school related travel and transport

48 While home-school travel is ostensibly a transport matter, there are important interdependencies with child wellbeing outcomes sought by children's services departments and with the strategic objectives of Primary Care Trusts.

49 Obesity poses a key risk to child wellbeing in this country and will be a major concern for most children's trusts. Active travel, whether it be by bike or foot, offers a means of addressing obesity and promoting wider wellbeing, while also reducing costs to households and authorities. Despite these benefits, active travel infrastructure all too often remains the poor cousin to road transport in local transport planning, revealing weaknesses in the alignment of strategic plans within the authority and within the children's trust. We suggest that local authorities:

- **promote sustainable and active travel through the planning framework and through associated investment.** Local authorities should use their Sustainable Mode of Travel Strategies, in conjunction with School Travel Plans, to plan for change across a local area and ensure that child wellbeing priorities are reflected in transport planning.

Local authorities should continue to invest in infrastructure improvements, such as cycle paths and footpaths, as well as initiatives to support behaviour change, with schools in mind. The Sustrans Links to Schools programme provides funding and support to local authorities to connect schools and their communities to the National Cycle Network and provides grants for cycle parking²⁵. Local authorities participating in the major schools capital programmes should be considering how cycle storage, lockers and shower facilities can be provided to both staff and pupils to encourage greater uptake of more active modes of travel.

Where local authorities are managing bus services on behalf of schools, we encourage 'best of breed' services to be used, that is, those where contractors are making demonstrable efforts to reduce their own carbon footprint. This could be through the use of highly efficient or low carbon vehicles, through the provision of 'eco-driving' training or through smarter planning of journeys and integration with other transport provision.

Local authorities should explore ways in which pupil travel associated with the 14-19 entitlement can be minimised – for example, through use of technology for remote learning – without compromising the ability of young people to access the range of opportunities required.

One of the ideas considered in our recent consultation was the encouragement of areas around schools where private car use is restricted at certain times of day (ie, limited to residents and to those with special transport needs). Such schemes are already in operation in parts of Cornwall, County Durham, Derbyshire and Northamptonshire, among others. People who responded to the consultation felt that these schemes were a positive idea, and many had examples of local schemes already in operation. Some consultees expressed concerns about the suitability of these schemes in different areas and about how they are enforced. It is clear however that such 'park and stride' schemes have the potential to reduce the distances travelled by private car and increase active travel by children and young people. Local authorities should therefore consider such schemes and the circumstances under which they may be appropriate.

Widespread roll-out of 'park and stride' areas could help to reduce the distance travelled by car, and to encourage modal shift for pupils and staff who live just outside the area and for whom car journeys become less attractive. Around 100,000 tonnes of carbon could be saved by 2020 if, over a ten year period, average car journey lengths were reduced by 400 metres and 10% of pupils and staff shifted to more sustainable modes such as cycling and walking.



- **promote active travel directly.** There are several national programmes, including Links to Schools, Bikeability, Walk Once a Week and Bike It which are designed to encourage greater uptake of cycling and walking. Many local authorities already support these schemes and have seen some degree of modal shift away from private car use.
- **use schools data to incentivise action.** Local authorities will be able to proactively use home-school travel data gathered through the DCSF School Census to compare trends between local schools and share the information with schools. The data should reveal which schools have had success in reducing car travel and enable authorities to better identify best practice and target their school engagement.
- **provide information to parents.** DCSF supports parental choice of school, and parents should have a full set of information to support their decision. For this reason we would ask that local authorities ensure that all parents routinely receive well presented information on options for home-school travel when considering their choice of school. It is important for parents to understand that, by opting for a school some distance from their home, their child may not have the opportunity to travel to school by bike or on foot and may miss out on the associated health benefits. Car travel over multiple years also carries significant costs for households.

(C) Reducing emissions from schools' procurement

- 50 Schools and local authorities have considerable purchasing power and can stimulate the market for low carbon products and services, helping to drive local supply chains, economies and employment.
- 51 Local authorities should:
- **lead by example when purchasing on behalf of schools.** We are particularly keen to see carbon reductions from facilities management, catering and ICT services purchased through local authorities and we would like local authorities to set explicit requirements within their contracts. Local authorities also have a powerful opportunity to consider how best to reduce the carbon impact of construction materials and transport services. To help make procurement as efficient as possible, we will work with authorities, public sector buying organisations, schools and industry to develop standard specifications/ clauses in important product category areas. Where appropriate, we will also establish supplier frameworks.

CASE STUDY

School Food Support, Leicestershire County Council

The School Food Support service in Leicestershire provides school meals for 243 schools. Food supplies are sourced through four main local contractors, enabling the service to save on transport miles. Menus are seasonal which assists in the local procurement of fruit and vegetables from the region. Catering staff order the correct amount of food for the number of children they will be feeding; training is carried out with catering staff to ensure that children receive the correct portions reducing food waste. Any resulting food waste is from children not eating their meals and the service tries to reduce this by consulting with children on their favourite foods and including them where possible on future menus.

- **help schools to understand their procurement choices.** Local authorities can work with schools to help them understand more about the carbon impacts of their product choices and encourage them to participate in national or local sustainable procurement initiatives. At a national level, we will be developing a Sustainable Procurement Code, which will lay out our strategic approach to encouraging sustainable procurement, along with a roadmap of product availability. At a regional or local level, schemes such as the London Mayor's Green Procurement Code (www.greenprocurementcode.co.uk) and the Exeter Green Accord (www.exeter.gov.uk/index.aspx?articleid=7533) provide useful templates for other authorities to emulate.
- **share good practice.** Local authorities should continue to work with partners across their regions to share good practice and encourage improvements across the system. Helping other authorities – and schools – to see what can be achieved will bring the whole sector to a lower carbon future more swiftly.

Section 5: Action for Government



Playing its part: The role of DCSF

- 52 Stakeholders responding to our consultation felt that Government should demonstrate leadership, provide coordination and coherence, generate synergies between operational activity and the curriculum and recognise those in the sector who are taking action.
- 53 We agree with this feedback, and also consider that Government should combine direction setting and leadership with an enabling role that empowers schools and local authorities to act to reduce emissions.

The case for action

- The UK Government is determined to show international leadership on climate change, underpinned by robust and credible action in the UK. The Government wants the public sector to be at the forefront of our domestic response. It is therefore vital that large scale construction programmes such as Building Schools for the Future lead to significantly reduced emissions.
- DCSF has been allocated a carbon budget that can only be met by significant emissions reductions in the sector through to 2022. Staying within this budget is important to the UK meeting its overall greenhouse gas emissions targets.
- Reducing emissions will assist other Departmental objectives, for example, improving child health and wellbeing through active travel and reducing costs to schools through energy efficiency.

Setting the scene

The Government would like every school to be a sustainable school by 2020 and has set out a framework by which this can be achieved (www.teachernet.gov.uk/sustainableschools).

DCSF appointed a Zero Carbon Task Force in 2008 to advise on how new school buildings can be zero carbon from energy use by 2016. Their work came to an end with the publication of their recommendations in January 2010²⁶.

Although the task force has established that it will not be possible for all new schools to be zero carbon by 2016, it does support the ambition that all new schools will be zero carbon by 2018. This is in line with the wider ambition for all new public sector buildings. This long-term goal builds on the DCSF's immediate requirement that all new BSF school buildings reduce carbon emissions by 60 per cent compared to 2002 Building Regulations.

Adopting the right approach

54 To fulfil our role, we will:

- **recognise that we have a responsibility to secure major cuts in carbon emissions within the school sector and to meet out carbon budget responsibilities;**
- **actively address carbon emissions.** Meeting the UK carbon budget is essential to safeguarding the future wellbeing of children and young people and will require a proactive and dedicated approach;
- **adopt a partnership approach.** We will work across Government, with our Non-Departmental Public Bodies (NDPBs) and with other stakeholders to ensure that resources and policies are well-aligned;
- **facilitate change.** We will ensure that the school sector is aware of and able to use emerging value for money approaches to carbon reduction.

(A) Reducing emissions from energy use in school buildings

55 Schools' use of energy is the largest source of emissions in the sector's carbon footprint. It is also the area where action to reduce emissions is best understood and most easily implemented. This is why we are setting ourselves an ambitious target – to reduce energy emissions by 53% by 2020 from 2006 levels.

56 To achieve this goal, we will need a concentrated and coherent programme of action which will last throughout the coming decade. The major capital programmes – Building Schools for the Future and the Primary Capital Programme – provide the bedrock for our work to reduce energy emissions but we also recognise that the Department has an important role to play in securing energy efficient behaviour change at the school level.

57 A number of agencies are already engaged either directly with schools, or through local authorities, in seeking to reduce schools' carbon emissions. Our overarching approach therefore needs to be one of partnership and DCSF will work with key partners, including, but not restricted to, the Carbon Trust, Salix, the Local Government Association and the Department of Energy and Climate Change to put in place co-ordination arrangements that ensure that available resources achieve maximum impact and provide coherent support for schools.

58 We will also:

- **make sure that capital programmes deliver reductions in carbon emissions.** DCSF is already setting challenging standards for new build secondary school buildings by requiring that they meet carbon emissions standards 60% lower than those required by Building Regulations 2002. If we are to achieve our emissions reduction goals, it is essential that new build projects deliver against challenging emissions standards. Anecdotal evidence suggests that some new build schools do not deliver the same energy performance as predicted when they were designed. In response to this, Partnerships for Schools will introduce a Post Occupancy Evaluation process for all schools within BSF and a methodology for in-depth energy studies to be applied annually to a sample of schools. These studies will enable mitigating actions to be taken and will inform future design so as to ensure that emissions standards are achieved. BSF new build standards are an important means of driving down emissions, but we also recognise that they will not impact on all new build schools, and nor will they benefit the existing wider school estate. We will therefore work with Partnerships for Schools to draw together an overarching capital strategy for reducing carbon emissions from the energy used in the wider schools estate.

To further promote carbon reduction, Partnerships for Schools will:

- identify and monitor the outcomes of research into new low carbon energy sources that can be adopted for buildings;
- work with suppliers to keep abreast of developments in the market for low carbon products;
- develop the role of the Client Design Adviser to ensure that carbon minimisation is satisfactorily addressed at the earliest stages of school building projects and is safeguarded throughout design and construction and into the operation of buildings;
- develop guidance on the options for low and zero carbon energy supplies that can be applied to schools of different sizes in various locations.

“With all the new BSF schools, this presents the ideal opportunity to start from scratch with each school at the planning stage and therefore incorporate as many green, sustainable power/ travel developments into a school as practical.”

Consultation response, local authority

- **help inform on best value commercial models for energy saving.** The Government is concerned to establish the appropriate use of commercial models in reducing carbon emissions within the public sector. DCSF will contribute to this work and will ensure that best practice is disseminated to the local level, so that it can be used within the school sector.
- **help the sector reduce emissions associated with ICT.** Information and communications technologies (ICT) have become central to the way that children and young people learn in our schools and to how our schools are managed. We need to seize the opportunities presented by ICT – for greater interactivity and participation and for increasing the efficiency of school administration.
At the same time we need to recognise that by increasing the electricity used in our schools, ICT creates emissions. For this reason, we have asked Becta to develop proposals as to how we can reduce carbon emissions from ICT use, and how ICT can facilitate carbon reduction more broadly. Becta will also:
 - work with the ICT industry to develop a methodology to measure the actual operational energy performance of ICT service providers;
 - develop tools and guidance on energy efficient ICT;
 - develop ICT technicians’ professional qualifications which support energy conservation and power management.

- **support and encourage energy-conscious behaviour in schools.** Improving the energy efficiency of school buildings is vital, but we know that it is only part of the story. There is good evidence to suggest that changing the way that our buildings are used can deliver up to a 20% reduction in energy use.
Section 3 sets out ways in which schools can reduce their energy demand. The role of Government – working with national and local stakeholders – is to put in place a policy and programme framework that will stimulate and support action at the school level. We think this entails maximising incentives for schools to act, while also building schools' capacity and agency.

Maximising incentives

- In addition to the desire to act on climate change, cost savings can provide significant incentive for schools to reduce energy consumption, although many schools are yet to recognise the savings potential. The introduction of the CRC Energy Efficiency Scheme (see Section 4) will create financial costs and benefits for schools, depending upon local energy reduction performance. We will seek to ensure that schools are aware of the financial benefits of saving energy.
- We will explore the potential for linking capital funding to the uptake of behaviour change so as to ensure that capital grant incentivises change and that the energy savings created through building improvements are not undermined by wasteful behaviours.
- Schools are often motivated by maintaining a strong positive reputation in the local area, so we will explore ways in which energy performance can be reported locally, enabling comparison between schools and providing information for parents and governors.

Building school capacity and agency

- Schools' ability to respond to the incentives set out above are often limited by their capacity and understanding of how to act to reduce their emissions. At the same time, there is information available to support schools from a wide range of organisations and in some cases an element of individual school support as well. Nevertheless, there remain very real barriers to capacity building and understanding, including:
- school leaders not assigning importance to energy reduction;
 - the perception that energy reduction will be time consuming;
 - a lack of clarity on practical steps;
 - the perception that saving energy is complex, often brought about by the sense of having 'too much information'.

To promote school agency to act on carbon emissions, we aim to:

a. Build capacity

We will work with partners to ensure that appropriate training and information is available for those able to effect change, including bursars and business managers, ICT technicians, administrative and support staff, teaching staff, school leaders and governors.

We will work with partners to provide opportunities for school staff to network and benefit from local insights and practice around reductions in energy use.

b. Simplify messaging

We will review with partner agencies how energy saving information can best be simplified, aligned, signposted and communicated to schools, so as to avoid complexity and uncertainty as to which source of advice to access and what actions to take.

c. Secure feedback for schools on their performance

If schools are to sustain actions to reduce emissions, they will need feedback on how they are doing and what progress is being made. There is a good deal of literature showing that when people have easy access to information on their energy use, demand falls. We have therefore invited all publicly funded schools in England to apply for a free display meter²⁷. We will also put in place measures to ensure that schools can see how their energy use compares to other schools within their area enabling broad judgements to be made regarding levels of efficiency and savings potential.



²⁷ See www.energydisplaymeter.co.uk/

(B) Reducing emissions from school travel and transport

59 Reducing carbon emissions from home to school travel is undoubtedly challenging. Travel emissions have risen dramatically in recent years, and the very nature of personal travel means that decisions over mode of travel are highly fragmented, made by individuals rather than organisations. Outside of improvements to vehicle emissions, effecting change therefore largely involves creating a decision making environment in which children and their families choose to access school through low carbon travel options.

60 To help us develop our strategy to reducing emissions from school travel and transport, we will establish a School Travel Task Force. The Task Force's roll will be to provide recommendations to the Department on:

- the potential for emissions reduction from school travel and transport; and
- how we can achieve significant emissions reductions through to 2020 in the most cost effective fashion.

61 In the mean time, DCSF considers that it can support local authorities and schools in reducing emissions in five important ways. We will:

- **ensure travel emissions feature in the Department's own decision making.** Many respondents to our recent consultation noted that we have introduced policies which make it more difficult to reduce carbon emissions to the levels required by 2020. They cite policies which increase

the distance travelled to school by a pupil and those which add to the amount of travel required during the school day.

We are committed to providing parents with a choice of school and to the delivery of the 14-19 agenda. This means that we have to make sure we take action to minimise the travel emissions associated with these policies (see below) and also to be mindful of the likely travel impacts of future policies. Key to embedding travel considerations in future policy development is the Department's impact assessment process, which ensures that proposed policy is scrutinised for its wider impact. We will embed assessment of the impact on the DCSF carbon budget within our Departmental impact assessment process.

To help us better understand the impact of school choice on travel emissions, we will also monitor children's total home to school travel distance by car on an annual basis to ensure that we are aware of the total emissions impact of home to school travel and whether this is growing or decreasing.

- **take measures that reduce the need for travel through:**
 - Exploring and developing the means through which ICT can remove the need for travel. We have asked Becta to develop options for how ICT can reduce the school carbon footprint, particularly by reducing the need for travel.
 - Funding sustainable solutions to accessing the 14-19 curriculum. Rural areas face a particular set of challenges in delivering the 14-19 reforms, with dispersed populations and less well-developed transport infrastructures.

We have therefore invested £23 million in the most rural areas to support them to explore sustainable solutions to enable access to the 14-19 curriculum. This funding has enabled the 40 most rural local authorities in the country to appoint a 14-19 Access and Transport Coordinator to help plan and minimise travel for access to the Diploma and other pathways²⁸.

- Promoting informed choice. We will ask local authorities to ensure that all parents routinely receive information on options for home-school travel when considering schools. This information should promote sustainable travel options and their corresponding benefits, so that parents are better informed of these benefits when applying for school places.

“The provision of public transport in rural areas... is not merely a matter of carbon emissions reductions but simultaneously one of tackling disadvantage and exclusion.... (We) would welcome an integrated approach... that takes into account the dual challenges of promoting sustainability and equality.”

Consultation response, trade union

“Some local authorities are already ensuring that active travel and health information is included with school choice information sent out to parents so they are aware of the effects on their children’s health and environmental sustainability if they choose a school which is likely to result in them using motorised transport.”

Consultation response, sustainable transport organisation

²⁸ See www.dcsf.gov.uk/14-19/index.cfm?go=site.home&sid=57&pid=500&lid=596&ctype=None&ptype=Contents

- **help create a culture of sustainable travel.** In 2003, the DCSF and Department for Transport jointly published *Travelling to school: an action plan*²⁹ which set out a series of measures for schools, local authorities and central Government to take in order to promote healthier and more sustainable home to school travel options. One of the key elements of the action plan is School Travel Advisers working with schools in the development of School Travel Plans. School Travel Advisers have been supported through the National Travel to School Initiative since 2003. The initiative is currently being evaluated and both departments will consider their response, taking into account the resources available following the next spending review in 2010. To aid authorities in their engagement with schools and to help Travel Advisors to target their resource, we will improve data availability:
 - DCSF currently collects data on pupil mode of travel through the School Census. We will make this information available on an annual basis and in comparison form, with a view to enabling schools and local authorities to be able to make comparison between schools.
 - from 2013, our carbon budget will include school business travel, that is, journeys undertaken on school business, excluding the commute to and from school. We will work with the Department for Transport, local authorities, schools and others to develop a way of gathering data on school business travel. We will then make this data available to schools and local authorities to enable a better understanding of the cost and carbon impacts of school journeys.
- **review transport planning arrangements.** DCSF will continue to work with the Department for Transport to review national progress on sustainable travel. We will also consider the implications for children's travel arising from the Department of Health and the Department of Communities and Local Government's joint review of the Spatial Planning system and the extent to which it supports the delivery of the Government's Health, Wellbeing and Social Care objectives.

²⁹ Travelling to school: an action plan, www.dft.gov.uk/pgr/sustainable/schooltravel/travelling/avellingtoschoolanactionplan.pdf

- **promote excellent facilities.** As part of the pre-conditions for the Building Schools for the Future programme, Partnerships for Schools assesses planning for school cycle parking facilities. It also requires that local authorities provide a map of the local context demonstrating the links between schools and public facilities and showing cycle networks and relevant public transport routes. Partnerships for Schools will continue to challenge local authorities to provide excellent active travel facilities and access through this design gateway procedure, and will continue to use the influence of the BSF programme to reduce pupils' need for car travel.

Through our Play Strategy³⁰, we are providing £235m to deliver up to 3,500 new or refurbished free play areas and 30 staffed adventure playgrounds by 2011. We expect all local authorities, as they roll-out the play capital investment, to work with partners to help ensure that routes to and from play sites are safe for children and that these routes provide opportunities for active travel by walking or cycling wherever possible.

(C) Reducing emissions from school procurement

62 DCSF has a role in market management to ensure that sustainable goods are available and that they are promoted to schools. This means influencing both supply and demand. Where it is possible to mandate appropriate sustainable procurement approaches through DCSF and our Non-Departmental Public Bodies' grant conditions, we will work to put these in place. We will also:

- **provide an overall framework, including a Sustainable Procurement Code** that will clearly communicate the steps that schools and local authorities can take to address sustainable procurement. We will also ask suppliers to sign up to the Code, and will encourage innovative supplier action by recognising and providing awards for significant improvements in carbon reduction.

For schools, a simple sign-up process to the Code, coupled with provision of information and support as outlined, can help create the sense of a shared movement towards sustainable procurement. In our recent consultation, 92% of respondents felt that a Sustainable Procurement Code would be helpful.

- **place an early focus on seven key procurement categories.** Taking into account their dominant influence on the schools' carbon footprint, we will place an early focus on seven key procurement categories: Construction, Catering, Paper and Printing, ICT, Energy, Vehicles and Facilities Management.

³⁰ Play Strategy, www.dcsf.gov.uk/play/

Schools, local authorities and purchasing organisations all play a part in procurement of these products and services. For each type of organisation and each product category, we will work with NDPBs, other government departments and supply chain stakeholders to:

- review what is already in place by way of standards, guidance and support;
 - work with suppliers, purchasing organisations and the Office of Government Commerce to agree challenging sustainability standards and expectations;
 - set Departmental expectations, through a Sustainable Procurement Code;
 - require sustainability standards in those categories which are driven by central specifications and grant funding;
- for each category, support purchasers through an appropriate mixture of:
 - standard specifications or clauses for use in tenders and contracts;
 - training and supporting guidance to increase engagement with schools and local authorities;
 - the use of OPEN³¹ to enable, and advise on the procurement of products meeting appropriate standards;
 - helping stakeholders to establish frameworks for providers meeting the standards that can be used by local authorities and schools. Supplier frameworks can help to reduce transaction times and administration costs associated with procurement, as well as providing a level of reassurance about the carbon performance of the product.



Becta is the Government's agency leading the national drive to ensure the effective and innovative use of technology for learning and will:

- engage with the ICT industry to agree specific requirements for the energy/carbon performance of ICT services in schools;
- consider the development of an energy rating system that applies to schools ICT services;
- refresh their functional requirements, technical specifications and standards to reduce the energy requirements of ICT services and ensure that their accreditation processes and procurement of ICT are based on these criteria.

- **review and improve information and support available to purchasers.** At the same time as developing the above, we will also facilitate change by providing schools, local authorities and centralised purchasing organisations with information and support to assist them to act across a broad range of procurement activity.

To ensure schools have access to an easy to use guide to sustainable procurement, we will also provide a 'roadmap' of product availability. This will help schools and local authorities to understand which product categories already offer low carbon options and the likely timetable for availability of new low carbon and sustainable products. We believe this sort of indicative information can help purchasers to understand the types of products that should be purchased as a matter of course and to manage expectations about categories where no/few products are available.

We will review existing work and guidance to see whether there are gaps in important areas (e.g. reducing emissions from freight/deliveries) and will consider how well packaged and how accessible this information and guidance is. Where appropriate, we will identify routes for dissemination (e.g. through OPEN and the Educational Procurement Centres).

We will also consult with schools and local authorities regarding the need for additional information that would further promote sustainable procurement (e.g. model and example specifications for use in contracts).

- **review progress.** In order to measure progress in sustainable procurement, we are likely to adopt a number of success measures; some relating to actions taken, some in terms of outputs or outcomes. We will consciously build these measures into our work and procurement structures as our sustainable procurement programme develops.

ANNEX A: Links and resources

This annex signposts schools and local authorities to various sources of guidance, advice and support on reducing carbon emissions across the school estate.



Resources for schools

General

Sustainable Schools

Website contains links to all UK based teaching resources to do with sustainability and learning

www.teachernet.gov.uk/sustainableschools

Energy

Carbon Trust

Schools with energy bills over £50,000 qualify for a free energy survey from the Carbon Trust which will highlight quick and effective ways to save money and reduce carbon emissions. Carbon Trust also offers telephone and online advice and information free for all schools.

www.carbontrust.co.uk/schools

Community Sustainable Energy Programme

The Community Sustainable Energy Programme will provide £8 million to community-based organisations for the installation of microgeneration technologies, such as solar panels or biomass boilers and energy efficiency measures including loft and cavity wall insulation. It will also provide £1 million for project development grants that will help community organisations decide if they could benefit from a microgeneration and energy efficiency installation.

www.communitysustainable.org.uk/

BECTA Schools ICT carbon footprint comparison tool

Becta has prepared a simple comparison tool to help your school compare the energy required by potential purchases of ICT and check the consumption of existing equipment.

http://schools.becta.org.uk/index.php?section=re&&catcode=ss_res_env_02&rid=16075

Sustainable Learning

An energy and water management programme for schools. The website provides a structured approach to improving your schools energy and water performance; saving you money, reducing your environmental impacts and bringing about social improvements.

www.sustainablelearning.info/

Travel

Department for Transport: How to set up a walking bus

A step-by-step guide on how to set up a walking bus, who schools can approach for help in doing so, and where they can find further on-line guidance.

www.dft.gov.uk/pgr/sustainable/schooltravel/howtsetupawalkingbus

Bike It

A project from Sustrans supporting schools to increase cycling to school.

www.sustrans.org.uk/what-we-do/bike-it

Safe Routes to Schools

Project from Sustrans supporting safe, sustainable and healthy school journeys. Provides information and resources, news, training and events to support this.

www.sustrans.org.uk/what-we-do/safe-routes-to-schools

Bikeability

A national programme of cycle training to encourage safe, active and sustainable travel, with funding provided through local authorities.

www.bikeability.org.uk

Procurement

WRAP Schools Procurement Guidance: Schools Construction

Many school new build and refurbishment projects are being planned or delivered. Curriculum guidelines include topics such as energy, water, environment and waste, and schools are now delivering Education for Sustainable Development and Sustainable Schools. The construction of such facilities can generate large amounts of waste. Reducing, reusing and recycling this waste will help to relieve pressure on landfill capacity and improve the efficiency of construction.

www.wrap.org.uk/construction/how_do_i_reduce_waste/sectors/schools_construction/context_for_taking_action/index.html

School Food Trust

The remit of the School Food Trust is to transform school food and food skills, promote the education and health of children and young people and improve the quality of food in schools.

www.schoolfoodtrust.org.uk/content.asp?ContentId=259

Defra's Catering Services and Food Procurement Toolkit.

The Catering Services and Food Procurement toolkit is aimed at people in the public sector who are responsible for buying catering services (including vending and hospitality services) and food directly from wholesalers, producers and suppliers. The toolkit contains guidance on how you can incorporate the aims of the Public Sector Food Procurement Initiative into your catering and food supply contracts. You will also find sample tender documents, specifications and model contract clauses that can be used in your procurements.

www.defra.gov.uk/foodfarm/policy/publicsectorfood/toolkit/index.htm

RHS Campaign for School Gardening

The RHS Campaign for School Gardening aims to encourage and support schools to develop and actively use a school garden.

<http://apps.rhs.org.uk/schoolgardening/teachershome/default.aspx>

Safe and Local Supplier Approval (SALSA)

There are many small and local Suppliers producing superb traditional or new products, often using quality local ingredients. Unfortunately, the very same Suppliers can fall down when it comes to meeting the buyers' product safety and quality assurance standards. SALSA has been set up by and for the industry as a low cost, sustainable not-for-profit scheme to help local producers meet the standards buyers demand and give you the confidence to trade with them and effectively implement your local and regional sourcing targets.

www.salsafood.co.uk/

WRAP Online Recycling Information System

Use the maps to find details on recycling collection services available for schools in England and on communications and education services offered to schools.

www.wrap.org.uk/local_authorities/research_guidance/online_recycling_information_system_oris/index.html

Wastewatch

Waste Watch offers fun, hands-on, quality learning experiences through our schools, community and workplace programmes. Our schools programmes are linked to the National Curriculum and designed to help pupils and staff quantifiably reduce their environmental impact at school and at home.

www.wastewatch.org.uk/Education-and-Training/Programmes

Recyclenow Schools

Recycle at school guide: This online resource aims to provide primary and secondary school staff with information, advice and activities to guide you through the process of setting up and maintaining effective recycling schemes and taking a whole school approach to recycling.

www.recyclenow.com/schools/recycle_at_school_guide/index.html

Resources for local authorities

Energy

Partnerships for Renewables

Partnerships for Renewables is an experienced team of renewables experts that works exclusively with public sector bodies (PSBs) to develop and manage renewable energy projects across the UK.

www.pfr.co.uk/

Carbon Trust

Carbon Trust has developed a suite of resources which can help local authorities work with schools in their area to reduce emissions from energy use. This work can easily be integrated into an authority's carbon management plan.

www.carbontrust.co.uk

Sustainable Learning

An energy and water management programme for schools: Local Authorities can view registered schools in their authority and use this to support utility management

www.sustainablelearning.info/

Salix

Salix Finance Ltd is an independent company that manages public investment in energy efficiency technologies across the UK public sector. In areas where the local authority holds a Salix fund, schools may be able to access financial support for energy saving projects that reduce energy costs.

www.salixfinance.co.uk

Imagine: Inspirational School Design

An online database that captures school design best practice from around the world.

www.imagineschooldesign.org/

Travel

Department for Children, Schools and Families: Home to School Travel and Transport Guidance

Statutory guidance covering local authorities' duties and powers relating to sustainable school travel and the provision of school travel arrangements for children and young people.

<http://publications.teachernet.gov.uk/default.aspx?PageFunction=productdetails&PageMode=publications&ProductId=DFES-00373-2007>

Department for Transport: Guidance for Local Authorities

A range of publications that will help local authorities promote and increase the use of sustainable modes of transport for journeys to and from school.

www.dft.gov.uk/pgr/sustainable/schooltravel/localauthorities/

Links to Schools

Funded by Department for Transport and delivered by Sustrans, Links to Schools helps local authorities to connect schools and communities to the National Cycle Network and other safe walking and cycling routes.

www.sustrans.org.uk/what-we-do/links-to-schools

School Travel Advisor Toolkit

This toolkit provides a range of documents, links and other information designed to help school travel advisers in implementing the Travelling to School initiative.

www.teachernet.gov.uk/wholeschool/STAtoolkit/



Procurement

WRAP training

'Schools recycling schemes: improving performance'. This course aims to enable delegates to establish the performance of current recycling collection schemes for schools, review the scheme, plan and implement improvements and sustain the improved performance of the scheme by planned communication with the schools.

www.wrap.org.uk/local_authorities/training_events/index.html

London Centre of Excellence Sustainable Procurement Toolkit

The Toolkit aims to provide guidance for including sustainability in tendering exercises.

www.lcpe.gov.uk/Library/Sustainable/Sustainable%20Procurement%20Toolkit%20draft.pdf

ANNEX B: Summary of consultation responses

Consultation process

DCSF published its consultation document *Towards a Carbon Management Strategy for Schools* in June 2009, along with an evidence and assumptions paper which modelled potential carbon savings from a range of activities.

The consultation period ran until 20 November 2009, and encompassed an online consultation, two stakeholder workshops and a series of presentations at sector events.

We received the comments and views of over 200 stakeholders during this period. These are summarised in the following sections.

Setting a level of ambition

57% of respondents felt that the school sector should aim for a carbon reduction target greater than that required by national legislation. The reasons given for this support were as follows:

- schools should be leading by example;
- working with young people gives the opportunity for long term change;
- schools have substantial collective buying power and therefore can have a significant influence on society.

However, 40% of respondents did not agree that carbon reduction targets should be set higher than national legislation demands. It was stated that schools should not be 'singled out' for special treatment but should instead be part of a consistent national effort of reduction carbon emissions. Respondents were also wary of additional burden being placed on teachers when children should be the first priority. There was also a concern that if targets were set too high they would lose credibility.

Respondents recognised that even the 34% reduction by 2020 over 1990 levels would be challenging and that there was a need for early action. The need for extra resources to meet targets was also highlighted. It was also recognised that schools may have fallen behind the public and private sector in reducing carbon emissions and that sustainability needs to be embedded in the school ethos rather than viewed as an add-on.

The inclusion of all greenhouse gases was welcomed but there was concern that the breadth of footprinting (Scopes 1, 2 and 3) could confuse schools.

When considering the level of carbon reduction that could be achieved cost effectively, some themes emerged:

- cost effectiveness does not matter in the face of the greater challenge of mitigating/adapting to climate change. The cost of not acting was also highlighted: for example dealing with the costs of flooding, obesity or increased congestion;
- cost effectiveness is a snapshot in time and can change rapidly (e.g. with rising fuel prices) although it does help with prioritising action;
- it is easier to determine cost effectiveness for energy and travel rather than procurement, however there is a need to understand procurement in the long term;
- a different way of considering cost effectiveness is required, for example, greater use of whole life costing. Schools should also work together to take advantage of their combined purchasing power.
- information and funding gaps still remain: for example, there is a need for a standard methodology for footprinting.

There are wider drivers for carbon reductions which can help schools to achieve significant carbon reductions:

- the national drive to transform to a low carbon society and reduce emissions: the political will is in place, and sustainability actions within the school will start taking place in the context of a low carbon economy;
- links between emissions reductions and other initiatives and benefits, for example improved health and air quality, reductions in congestion;
- financial incentives, including schemes such as Salix or feed in tariffs which will improve pay back times for investments;
- support to schools/capacity building from local authority, agency and NGO officers;
- the educational benefits of taking action to reduce emissions and the impact on the longer term choices of children and young people.

In order to effectively set targets, respondents felt that DCSF would need to:

- establish a baseline;
- improve data sets;
- ensure that carbon reduction is integrated with other policy areas;
- consider appropriate ways in which local authority and school level targets might be expressed;
- ensure that measurement and monitoring frameworks are in place.

Respondents identified a wide range of organisations and initiatives that could support schools' work to reduce carbon emissions, particularly Carbon Trust, local authorities and NGOs/charities.

Reducing emissions from schools' use of energy

Energy related emissions were seen as the area most within the control of the school and respondents felt that there should be a greater ambition for energy emissions than for other parts of the footprint. 52% of respondents felt that a target of 50%-60% reductions by 2020 would be appropriate.

Targets should be seen as realistic and achievable with a clear pathway for the sector to feel that they can be delivered. They should also take into account the changing use of schools (for example through extended schools and wider community provision), as well as recognising the individual situations and stock of different schools and that some may have already taken significant action to reduce their emissions and are therefore starting from a lower baseline.

It was generally agreed that an integrated package of activities would be needed to reduce emissions from energy use, along the lines of a comprehensive national programme tailored to the needs of the individual school. Common themes arising around delivery were:

- the importance of training and capacity building across the school, so that all building users have a better understanding of how energy is used and what the opportunities are for reductions. It was pointed out that training can be rolled out to all schools whereas capital support may be more limited. It is also vital that pupils are fully engaged in the process, particularly through the use of projects where the benefits are demonstrated;
- the need for funding and incentives, particularly to overcome initial capital barriers, including those around the installation of renewable energy technologies. It was suggested that in the current economic climate, schemes requiring match-funding may have low take up;
- existing buildings should be at the heart of efforts to reduce energy consumption as there are significant opportunities for improvement through measures such as better heating controls, efficient heating systems, efficient lighting and sensors, increased insulation and double glazing. Respondents also highlighted the challenge of working with schools occupying historic buildings;
- better information about patterns of energy use is needed; this can be gathered through smart metering and standardised energy audits;

- opportunities for embedding carbon reduction as a priority in procurement, for example, through carbon standards for new build and refurbishment, through capital programmes, in maintenance and facilities contracts and through effective handover and post occupancy evaluation;
- making procurement of energy saving measures and renewable energy technology a key consideration during new school builds or major refurbishments;
- the need for awareness raising, information provision and appropriate support, particularly provision of support at a local level;
- opportunities for partnership working with local authorities, businesses and other schools;
- the need to embed carbon reductions into school management and performance, by increasing capacity amongst school leaders and raising the profile of energy management in Ofsted's work. Ideally schools would have an energy manager, but wider staff engagement is required to support uptake;
- the potential to reduce emissions from ICT, by purchasing efficient equipment, changing user behaviour and managing systems efficiently on- or off-site.

Respondents highlighted effective measures for reducing carbon emissions from energy use, including information and awareness campaigns that increase whole school understanding of what needs to be done. Smart metering was also extremely popular, as it provides opportunities to link into the curriculum as well as supporting data management under the CRC Energy Efficiency Scheme. However, it was highlighted that the relevant people need to understand how to read the data produced.

To increase the uptake of low carbon and renewable energy technologies, it was seen as important to reduce costs, but equally to carry out a full feasibility study to ensure that the right technology is being deployed in the right place. PFI contracts should incentivise reductions in energy use and models that engage contractors and energy companies in energy reduction should be made more visible. Other points that were made include:

- linking into community energy requirements, as the school is not used all day long or all year round;
- provision of appropriate funding and clear routes to access it;
- identifying trigger points when new technologies could be introduced, for example, the replacement of a boiler;
- best practice should be promoted through case studies and visits to schools that already have relevant technologies in place.

To help trigger behaviour change, respondents identified a series of ideas which should be delivered as a whole school package, including:

- appropriate incentives (which can be low cost): some respondents suggested a competitive element such as a league tables;
- making links to the curriculum and fully engaging children, including energy audits that can be carried out by pupils;
- raising awareness and providing information, particularly about simple behavioural changes;
- building capacity amongst staff, governors and the wider school community, including making sure there is one person at each school with overall responsibility and that schools are supported to build energy management into job descriptions and inductions;
- providing appropriate local support to help build capacity and overcome time and expertise barriers, which could come from local authority officers or even local businesses;
- raising the professional profile of energy management, perhaps through inclusion of performance targets in Ofsted.

A few policy related issues were also highlighted, including:

- how the energy use of academies can be regulated and reductions encouraged;
- conflicts between the need to reduce energy use and other policies, for example, extended schools or increased provision of kitchens in schools.

Reducing emissions from school travel and transport

There was general support for a high level of ambition for reducing emissions from school travel and transport. The reasons given for this were:

- emissions from school transport will only continue to rise without leadership;
- reducing emissions from transport addresses a number of other important issues, including road safety, health and fitness of children, improvements to the local environment and community cohesion;
- it is extremely important to introduce active travel behaviour to children at a young age so it can be embedded for later life;
- travel and transport offers immediate carbon reduction opportunities.

However, respondents also highlighted that there was a need for robust data collection methods to back up monitoring of reductions in emissions from school travel and transport.

Those respondents who only supported a limited level of ambition voiced concerns that schools have only limited influence over pupil/parent travel decisions and that many factors are outside the school's control (e.g. availability of low carbon vehicles). Potential conflicts in policy were identified by many respondents, such as parents having a choice over which school children attend, the 14-19 agenda generating extra trips during the school day and the location of new schools on the outskirts of towns.

Engaging both parents and pupils is seen as essential; many travel choices are made by parents and based around wider decisions related to managing time such as fitting in dropping children off with the commute to work. Parents' safety concerns over children walking and cycling to school were also highlighted.

There is widespread support for enhancing School Travel Plans (STPs) and shifting the focus from planning to implementation. It was emphasised that for these to be useful, they needed to remain living documents that were regularly updated and supported by school travel plan advisors. As STPs have already been widely taken up by schools, they were seen as the most appropriate framework to carry on working within. There was also a medium level of support for building STPs into school policy and Ofsted targets.

Improving infrastructure is generally seen as essential to increasing cycling/walking rates as well as sending out a firm message about sustainable modes of travel. Funding needs to be available for these capital improvements outside the school gates as well as facilities within schools, for example, satisfactory cycle storage. It was suggested that local authority transport planning be joined up with the needs of schools, for example, by ensuring that new cycle routes support pupils cycling to school. Respondents also suggested that walking and cycling routes should be promoted when children change schools, as this is a suitable trigger point for embedding new behaviours.

Walking and cycling schemes are seen as effective although they need to be more consistent (e.g. not just a week of promotions) and to be backed up by suitable infrastructure improvements and, perhaps, incentives. A common theme was that there are no walking programmes with comparable recognition or similar levels of support from national charities to that of Bikeability and this should be redressed.

There was a mixed level of enthusiasm for the idea that building on the current Bikeability programme would encourage children to use their bicycles more for school. Overall, Bikeability is supported, but the need for sufficient funding to back it up was mentioned. Involving parents in training to overcome road safety fears was suggested, along with the particular need to target low levels of cycling among teenage girls.

Reducing the threshold for free school travel to two miles (as within the current threshold, children are still being driven to school) received a medium level of support although the cost implications of this were recognised. It was also suggested that local authorities review bus routes to ensure that they are best meeting the needs of pupils travelling to school.

The 14-19 agenda was mentioned as causing an increase in travel during the school day as pupils moved between schools. Alternative suggested strategies were moving staff instead of pupils, having bike pools for pupils to travel between schools or increased use of video conferencing facilities.

Engaging staff with the sustainable travel agenda can help them to lead by example and embed sustainable travel into the school ethos. A mixture of information, incentives and penalties was suggested, at minimum including staff travel in the School Travel Plan. For this to work, it was suggested that the full range of travel plan support as offered to workplaces should be in place. However, respondents also emphasised the need to recognise the reasons behind staff driving to school, including the amount of marking they have to carry, the long hours that they work and that teachers often live outside of walking or cycling distance from the school.

There was general support for car-free zones or Park and Stride schemes. Respondents emphasised that the individual situation of each school should be recognised: for example, a school on a busy main road may not be suitable for encouraging walking. There was also concern that parking and congestion issues may just be relocated as parents find somewhere else to drop off children. Those who did support it pointed out that 'park and stride' may need recognition as an official mode of transport for reporting purposes.

Improving the performance of the school fleet was supported although it was seen as a long-term solution as vehicles are not regularly updated, and one that might need to be embedded in local authority procurement or with local operators, as most schools do not own their full fleet of vehicles. It was also emphasised that while use of low carbon vehicles would be supported, it was also necessary to choose the best value options.

International travel and school trips were seen as a small part of the footprint. Focusing on this area would be a diversion from the main issue of the journey to and from school. When long distance or international travel was undertaken, respondents stated that the train was seen as time-consuming and complicated to book. It was suggested that the decision to take a school trip and the mode of transport used should be seen as a learning and engagement opportunity, whereby pupils can find out more about their travel impacts and how these can be mitigated.

Innovations were also identified, for example, establishing specialist walking schools or cycling schools in areas where high take-up is most achievable, addressing the potential travel impacts of the 14-19 agenda and providing a scrappage scheme for school vehicles.

Reducing emissions from school procurement

67% of those responding felt that a high level of ambition should be set for reducing emissions from school procurement. The reasons given for this were as follows:

- schools have a combined purchasing power, which could stimulate the market for sustainable products, drive local supply chains and support green economies and employment;
- schools have influence on the local community and can lead by example;
- action on sustainable procurement supports the education curriculum around climate change.

Achievement of high targets could be brought about by having a clear pathway of targets over time, early action on quick wins, effective partnership working at local and regional level and support with managing costs. Training and provision of relevant guidance to schools would increase capacity and skills surrounding low carbon purchasing.

Those respondents who supported a lower level of ambition gave the following reasons:

- there is a lack of understanding of the carbon impacts of products as well as how to reduce emissions through procurement;
- schools do not have sufficient control over procurement, which is a complex issue;
- clarification is needed relating to how collect data from procurement emissions.

An integrated and effective programme would incorporate:

- working with the supply chain through engagement and perhaps accreditation. This would be brokered through regional bodies to encourage promotion and development of sustainable products;
- negotiation with suppliers around shipping to reduce freight emissions;
- making use of centralised solutions where appropriate, e.g. national standards or local/regional purchasing consortia. This would overcome fragmentation and encourage improvements in the supply chain;
- providing information and support to schools, especially around making the business case for sustainable purchasing. Information could be set out within a sustainability framework or code, and could link into other frameworks such as Healthy Schools. Training and templates to back up this learning could be provided;
- embedding a commitment to low carbon procurement within school policies;

- supporting cultural and behavioural change projects within schools and helping to build capacity and understanding of sustainable procurement. This needs to be embedded at the school management level;
- encouraging greater uptake of waste minimisation and recycling schemes and practices, including supporting schools to work with suppliers to reduce packaging in the supply chain, as some schools may lack the confidence to do this;
- providing guidance on issues relating to food procurement, as there is a need to balance the nutrient needs of school food with local and seasonal purchasing, an issue that is perceived as extremely complicated.

89% of respondents supported the provision of standards specifications, whilst 92% felt that a Sustainable Procurement Code would be helpful, as these would embed sustainable procurement into the school system and provide clear guidance over options. Supply chains would also be able to develop standard offerings and respond to the needs of schools. There was also widespread support (86%) for the proposal that schools should be expected as a matter of course to buy sustainable products where available. It was suggested that this could be an ambition for the whole schools system by 2020.

The most commonly suggested approaches for increasing schools uptake of good practice recommendations and quick wins were:

- raising awareness of what quick wins and good practice are available, through provision of clear and simple criteria, training and information on what options are available;
- aggregating procurement through regional framework agreements and use of purchasing organisations;
- providing incentives, rewards or recognition for schools undertaking sustainable procurement;
- engaging with the supply chain to support sustainable purchasing;
- sharing good practice and encouraging learning between schools;
- helping schools to make and address the business case for good practice, particularly where upfront costs seem higher.

A number of respondents highlighted that centralised procurement could lead to a loss of choice and an increase in freight emissions. Although standard specifications were generally supported, the need to allow local flexibility was also mentioned. Respondents were also concerned that prices could be driven up, and that any schemes would be difficult to keep up to date. There was also a lack of confidence in sufficient availability of sustainable products.

A number of barriers were identified which prevent schools from doing more on waste minimisation and recycling. These related to:

- variations in local recycling services and charges: who runs services, and whether they are classified as household or commercial waste producers;
- a lack of ownership of the issue within schools, with waste management only a final thought in relation to procurement rather than being embedded in the entire process;
- physical constraints at the school (for example, lack of storage space for multiple bins);
- difficulties such as health and safety issues from storing waste. Compost produced by a school is required to be used on site, however, not all schools have a use for this;
- the difficulty of changing people's behaviours;
- potential conflicts in policy or contracts.

A framework for delivery

Respondents felt that central government had the responsibility to act in a guiding role and should provide the drive and level of ambition for reducing carbon emissions. This would include providing frameworks for taking action, suggesting standards, linking up policies and developing monitoring tools. There were less comments relating to regional government offices, but it was felt that they should provide leadership and support for reducing carbon emissions, particularly in spatial planning and sharing best practice.

At a local level, respondents felt that there were opportunities for local authority procurement and coordination of schools projects, as well as integration of carbon management into the policies, reporting and management of schools. The opportunity for engaging the local community with the carbon reduction agenda was highlighted, and it was suggested that schools became more involved in their wider communities, for example, delivering activity that supported an increase in cycling in the local area. Local authorities could implement training to help staff understand carbon reduction issues, and it was also suggested that local partnerships with the public and private sector could be developed to explore the opportunities for installations of combined heat and power and district heating.

There is a feeling that the collection of data will be difficult due to lack of resources, knowledge and capacity and that it may not be received positively as there are already many administrative demands on schools. Respondents were unsure of the accuracy of data collection methods and requested that clear guidance with a robust data collection methodology be provided. There was also uncertainty over who had responsibility for data collection, as some respondents felt this was more of an administrative role and therefore should not fall to the school. It was suggested that pupils could be involved in data collection as an educational activity.

Challenges around data collection may be resolved by the following measures:

- the provision of national standards and monitoring systems;
- robust methods backed up with training and support;
- the provision of smart meters;
- support from local authorities and centralised procurement of monitoring systems (to build consistency across schools in an area);
- one local authority highlighted their role as the central energy purchaser for all their schools, as this simplifies data collation.

When asked what support services the school sector would like, the prevailing theme was that respondents would like one source of simplified, easy to understand information that could be referred to when making carbon emission reduction decisions, as there is a feeling that the current situation results in information overload. Clear messages and targets, supported by funding, incentives and recognition for making improvements would be welcomed.

There is a need to provide schools with access to support and expertise, and to embed carbon reduction in the management skills within the school.

When asked what combination of actions should be brought together to deliver carbon management objectives, respondents identified the following measures:

- leadership on carbon reduction efforts to come from central government, with clear and consistent guidance;
- funding that prioritises carbon reduction was a key theme. Funding was requested for energy efficient measures, low carbon technology and behaviour change programmes;
- linking different policies and agendas so that they support and enhance each other;
- some respondents requested that key measures that can achieve large and fast savings be identified, and carbon reduction efforts be focused on these;
- procurement policy was frequently mentioned, with support requested to achieve sustainable procurement practice, particularly around ICT;

- involving young people in carbon reduction was mentioned by a noticeable number of respondents. Environmental issues should be included on the curriculum and schemes should be designed to engage pupils;
- the issue of a 'good school locally' requiring less travel was mentioned, along with spatial planning to support this;
- staff capability was also highlighted, with requests for funding and training, particularly around data collection and energy management;
- transport issues were mentioned, including the establishment of car free zones, subsidised public transport for pupils, school travel plans and a long term commitment to school travel plan advisors, and improvement of cycling infrastructure.





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