

**Worcestershire County Council – Overview and Scrutiny**



# **Scrutiny Report** **Tackling Climate Change**

**April 2009**

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 **worcestershire**  
county council

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## FOREWORD

I have found this climate change scrutiny exercise one of the most interesting pieces of work I have been involved in since I became a Councillor and I have been impressed with the number of people in Worcestershire who have contacted me about it. The issue of climate change features in the national media on an almost daily basis and how it is being tackled locally is very important to most residents.

It is encouraging to see the commitment of a significant number of local people and how volunteer groups (young and old) are working to tackle climate change, from helping to clear older people's loft spaces so they can take up grants, to growing their own food or taking part in an 'earthship' project.

I was aware that the County Council was already doing a great deal to combat climate change but even I was surprised to find out just how much the County Council is actually doing across all its Directorates. Residents are encouraged to travel more sustainably, recycling rates are relatively high and in-house staff have developed an expertise in low carbon building design.

I would like to thank the Council's Design Team, Chief Engineer, Planners and Procurement Officers for frankly sharing their views. I have been particularly impressed with the work of the Eco-School Co-ordinators as well as the efforts of the Street Lighting team to find ways of cutting down on energy bills. Throughout the process there was a distinct sense that we were all working together towards a common goal.

I would like to thank the young people and other residents who have taken the time to answer our questions and let us know their views. We believe our proposals will tackle their wishes, particularly for greater energy efficiency in existing buildings and the greater use of renewable energy.

It is clear that each organisation and individual must do everything it can to try and reduce carbon emissions. We believe we have found a number of ways in which the Council can do more and have made over 30 recommendations to address these, ranging from employing an Energy Manager to providing greater practical help, advice and information on how to make homes and businesses more energy efficient. Happily, saving energy very often means saving money, and this should be an important focus for the Council to encourage more energy saving activity, especially at a time when we have to get better value for money out of our limited resources.

I would like to thank Nottinghamshire County Council and the Marches Energy Agency for their helpful advice and hospitality. I would also like to thank the members of the Scrutiny Task Group for their hard work and commitment and the Scrutiny Team for their support, help and advice during this exercise, my first role as Lead Member.

We hope this scrutiny can reassure residents that the Council is treating climate change seriously. I also hope it will raise awareness further of the need for action at every level. I urge the Council, residents, organisations and businesses to take on responsibility for tackling and adapting to climate change no matter what its scientific causes.

Cllr Anthony Blagg  
Lead Member of the Tackling Climate Change Scrutiny Task Group



## **EXECUTIVE SUMMARY**

We have carried out this scrutiny on climate change following the results of an online poll asking for the public's views on which issue the Council should scrutinise. This report accepts the evidence from the Government's top scientific advisors that climate change is happening and that easy to reach oil and gas will soon reach its peak resulting in even higher energy costs in future.

People want to know what is being done to tackle climate change and whether it is enough. The focus of the scrutiny is on identifying gaps between what the County Council is already doing, what else it could do, and what people think the County Council should be doing to combat the effects of climate change. We aim to establish the top priorities and feed these in to the relevant strategies and plans.

### **What is the Council doing?**

We began by finding out what the County Council is doing to tackle climate change and were pleasantly surprised to find that in many areas, the Council is doing more than many other authorities. The County Council was awarded Beacon Status for its actions in 2008. It has more Eco-Schools than most other authorities, residents are encouraged to travel more sustainably, recycling rates are relatively high and in-house staff have developed an expertise in low carbon building design.

### **Top Priorities**

The top priorities for tackling climate change, suggested by the general public and young people in particular, were for: greater energy efficiency in existing buildings and greater use of renewable energy; more subsidised transport; and greater opportunities for recycling. We feel that more sustainable procurement generally, particularly in relation to food and farming is also important.

### **What more can the Council do?**

However well a Council or organisation performs, there is always room for improvement. Having identified what the Council is already doing, we have found a number of areas where we feel that the Council could do more. We have tried to ensure that our recommendations throughout the report deal with these, as well as the priorities identified by residents. Our recommendations are listed in full on pages 43 – 51. The following gives a flavour and summary of the main recommendations showing what more we feel the Council should do:

- Make tackling climate change a Corporate Priority.
- Provide greater practical help, advice and information to people on how they can make their homes and businesses more energy efficient, especially older properties. The Council should explore the possibility of working with suppliers, either creating or promoting Energy Efficient Demonstration homes showing available products, renewable technology and advice on how to obtain/install.

- Employ an Energy Manager.
- Continue to identify appropriate areas (unlikely to affect public safety) to pilot switching off street lights during the early hours.
- Set up a staff scheme of Volunteer Energy Wardens.
- Ensure a named Council officer is available to support schools, and pupils' energy audits.
- Fit energy monitors in schools and other council buildings.
- Expand Eco-School award type support for youth clubs, colleges and the University.
- The 25 year management contracts for the forthcoming Building Schools for the Future Private Finance Initiative (PFI) should contain Performance Indicators (or at least a requirement) to ensure minimum CO<sub>2</sub> emissions and maximum energy efficiency over the life of the contract.
- Continue to identify schools (and any other) sites which have sufficient capacity for wood fuel boilers and explore every opportunity to make use of Bio Energy Capital Grant.
- Promote and support volunteering initiatives such as Transition Towns Movement, One Planet and The Hive Earthship Project.
- Encourage more sustainable travel and wider opportunities for recycling.
- Investigate the feasibility of a council run transport system.
- Introduce low-carbon procurement policies for ICT.
- Use Climate Change as an alternative name to 'sustainability'.
- Exert influence to encourage use of renewable energy and maximise sustainable developments in future. Encourage Merton rule principles.
- Incorporate climate change adaptation measures into all new building designs.
- Explore further the feasibility of working with the Marches Energy Agency, with the aim of accessing European and other funding sources for a variety of projects.
- Set up an award recognition scheme which promotes food outlet businesses which use locally sourced food.
- Map all agencies in the county which support carbon reduction.

The 3 main planks of the Worcestershire Partnership Climate Change Strategy are to raise awareness, reduce CO<sub>2</sub> emissions and adapt to the effects of climate change. We believe the Strategy should place more emphasis on the need for localised food procurement and supplies across the partnership. Our recommendations will be fed in and contribute to the aims of the strategy.

## **Conclusion**

We hope this scrutiny can raise awareness further of the need for action and that people are reassured that the Council is working hard to tackle climate change. It is clear that whatever plans the Council make to tackle and adapt to climate change, a huge cultural shift is required by individuals and organisations at both a personal and cultural level in order to reduce emissions sufficiently and prepare for a warmer future. We must all take on that responsibility.

## INTRODUCTION

***“You see, we should make use of the forces of nature and should obtain all our power in this way. Sunshine is a form of energy, wind and sea currents are manifestations of this energy.***

***Do we make use of them? Oh no! We burn forests and coal, like tenants burning down our front door for heating. We live like wild settlers and not as though these resources belong to us”***

**Thomas A Edison, 1916**, (inventor of the tungsten light bulb)

1. It seems like little has changed. We still burn forests, coal and oil. There is a widely held belief that the easy to reach oil and coal has peaked (known as ‘Peak Oil’). Jeroen van der Veer, Chief Executive of Shell, said on 28 January 2008 “Shell estimates that after 2015, supplies of easy-to access oil and gas will no longer keep up with demand”.
2. Two hundred top scientists last December (2008) issued apoplectic warnings that time is running out if we want to seriously tackle climate change. Sir David King, the Government's former Chief Scientist goes further and says there could be as much as a 3 degree rise in temperature, leading to a global drop in cereal crops and millions threatened with starvation and drought. Another outcome could be the destruction of half the world's nature reserves and a fifth of coastal wetlands, which includes most of Norfolk, the Thames Estuary and the Western Isles.<sup>1</sup>
3. More recently, at an emergency climate change summit in Copenhagen<sup>2</sup>, the world's leading environmental scientists agreed that 'worst case' scenarios were already becoming reality.
4. People want to know what is being done to tackle climate change and whether it is enough. We have carried out this scrutiny on climate change following the results of an online poll asking for the public's views on which issue the Council should scrutinise. Overall there is a strong sense from the British public both locally and nationally that climate change is a concern to them and their local councils.
5. We began by finding out what the County Council is doing to tackle climate change and were pleasantly surprised to find that in many areas, the Council is doing more than many other authorities. The County Council was awarded Beacon Status for its actions in 2008.

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<sup>1</sup> From an article titled ‘Comment: It's all wind and whining’ by Magnus Linklater in Times on Line - 5 February 2009

<sup>2</sup> More than 2,500 environmental experts attended the climate change summit in Copenhagen, – reported in the Telegraph on 13 March 2009

6. The focus of the scrutiny is on identifying gaps between what the County Council is already doing, what else it could do, and what people think the County Council should be doing to combat the effects of climate change. We aim to establish the top priorities and feed these in to the relevant strategies and plans (of which there are many). One of these, the Worcestershire Partnership Climate Change Strategy, is currently under review. The Council's Sustainability Programme which incorporates a Carbon Management Plan to reduce the Council's own carbon emissions is also under review.
7. The county will have to reduce carbon emissions over the next 40 years and plan to adapt to the effects of climate change. The message is getting through and some people are beginning to change. We hope this scrutiny can raise awareness further and contribute to the revised strategy, due to be agreed in summer 2009. We do not wish to duplicate what is already being done.
8. The current Local Area Agreement (LAA) has a number of targets designed, for example, to increase energy efficiency and renewable energy, and adapt to the effects of climate change. The two main LAA targets for the County Council are National Indicators (NIs), as follows:-
  - **NI 186** (to increase energy efficiency and renewable energy) - 3% reduction CO<sub>2</sub> per head each year of LAA resulting in 80% reduction by 2050
  - **NI 188** (to adapt to the effects of climate change eg flooding and drainage)  
How prepared an organisation is for adapting to climate change is measured in levels from one to four. The County Council aims to achieve level 3 and Districts level 2 by 2011<sup>3</sup>.
9. Decisions and actions need to be taken now to ensure these targets can be achieved. There is a unique opportunity for the council and each individual to contribute to reducing carbon emissions and tackle climate change. We all need to use less fossil fuel energy, become more energy efficient and invest in renewable energy sources.

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<sup>3</sup> An explanation of Levels 1, 2, 3 and 4 for NI 188 are shown at Appendix 4

## **METHODOLOGY**

### **Summary**

10. The Scrutiny Task Group have been examining what the County Council is doing to tackle Climate Change, starting with the Council's 'Beacon' application, the Council's Corporate Priorities and the Worcester Partnership's Climate Change Strategy. We have received overviews from and held discussions with a range of officers. These include our Sustainability Officer, Education for Sustainable Development Officer, Chief Engineer, Street Lighting, Contracts, Design, Procurement and Planning Officers.
11. We asked what people thought the Council should be doing to tackle climate change, in a questionnaire at the Three Counties Show and at Community Fairs (targeting hard to reach groups). The results are at [Appendix 3](#). Also, we organised a Climate Change Scrutiny Conference for young people on 7 November 2008. The results are at [Appendix 4](#). Representatives from all middle and secondary schools in Worcestershire were invited.
12. Members have visited other authorities and have attended beacon sharing events here and in the City of London. The Task Group have spoken with green groups (Transition Malvern, One Planet Worcester and Colwall Greener); and, visited the Marches Energy Agency - we were particularly impressed with their success in attracting funding from a variety of sources. A full list of the Scrutiny Task Group's activity can be found at [Appendix 1](#).

## **WHAT IS THE COUNCIL DOING TO TACKLE CLIMATE CHANGE?**

13. What the Council is doing to tackle climate change is listed in various sections of the Worcestershire Partnership Climate Change Strategy along with what else needs to be done. As the young people we spoke to felt that the council should publicise more what it is doing, a brief list to show the variety of actions being taken, is also included here.
14. As previously mentioned, the County Council was awarded Beacon Status for its actions in 2008. We acknowledge the ongoing excellent work. Areas where the Council have been particularly effective are:
  - Eco-Schools (80% of state schools are now Eco-Schools) and Green Flag awards (2<sup>nd</sup> highest number in England).
  - An Energy award had been initiated by the Eco-Schools Co-ordinator for those schools that make the most effective energy savings. £15,000 invest to save funding is provided by Financial Services.
  - Sustainability awareness training for all staff.
  - Sustainability Stewards Group of officers and Councillors.
  - Eco-driving courses for staff.
  - Expertise of in-house architects and engineers in designing award-winning low carbon buildings meeting high environmental standards.
  - A Building Energy Management System which reduces energy consumption in most of the Council's significant buildings by over 15%.
  - Display Energy Certificates proving that Worcestershire's schools are, on average, up to 25% more energy-efficient than typical UK schools.

- A Carbon management Action Plan that has reduced the Council's carbon emissions by 52% compared with 2002 levels.
- Measures taken to reduce the carbon footprint of our highways contractor (recycling facilities for tarmac and gully cleansing introduced).
- Efforts of the Street Lighting Team to reduce energy costs.
- Successful campaigns to reduce waste to Landfill (Mission Impossible, Love Food hate Waste, and Composting campaigns).
- Sustainability Team is working in partnership with Destination Worcestershire and the Cornish tourism body CoAST. They have hosted a local "sustainable tourism forum". The next one in May will launch their visitors' charter and laundry cards which encourage more sustainable behaviour.
- Investment in a small power plant powered by methane from waste in Wychavon, capable of heating up to 4,000 homes.
- Improving sustainable travel, by encouraging people to walk, cycle or use public transport (Choose how you move) and introducing school and work based travel plans.
- Technical Planning Advice.
- Led by example – over 20 Worcestershire Partnership Organisations have signed up to the [Worcestershire Climate Change Pledge](#)<sup>4</sup>.
- Raised awareness of [Home Energy efficiency](#) through the work of the Home Energy Group.
- Produced a "[Green Directory](#)" for the County, available through the internet
- Regularly published the online Climate Change Newsletter.
- Held a [Climate Change Conference](#) in June 2008 attended by over 70.
- Stands at the 3 Counties Show and Community Fairs in Kidderminster, Redditch and Worcester (targeting hard to reach groups). Visitors were asked to calculate their carbon footprint and complete the Scrutiny Task Group's survey.
- Switch It Off! campaign week which culminates in a two hour Big Switch Off. Saving the equivalent of switching the power off in over 3000 three-bedroom homes for a whole year - emphasising that small changes can make a huge difference.
- Begun a dialogue with a number of 'transition town' organisations which have independently set up in the County e.g. '[One Planet Worcester](#)' and "Transition Malvern".

### **Gaps in relation to the County Council**

15. We discussed with our sustainability officer the gaps in relation to the County Council and found that the Council did not currently have and could possibly benefit from:
  - An energy manager.
  - Seeking additional funding from other sources such as the SALIX fund; 50% match funding for investment in energy efficiency projects.
  - Introducing smart metering.
  - An energy efficiency investment fund – any savings made from improving energy efficiency in existing council assets would be re-invested in further energy

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<sup>4</sup> See [Climate Change Pledge](#)

efficiency measures, for example the money saved from improving insulation in a property could contribute to investing in a more efficient heating system for the same or another property.

- A formally accredited Environmental Management System.
- Authority wide 'Green Champions' programme for staff.
- Official recognition of role of Eco-Schools Co-ordinators in schools.

### **Gaps in relation to the whole County**

16. Gaps highlighted by our Sustainability Officer across the County as whole included:

- Skills - energy management, climate risk assessment, carbon accounting in businesses & other organisations.
- The extent to which Climate Change adaptation is addressed in many Local Development Frameworks (LDFs).
- The extent to which the Districts Local Development Frameworks promote and encourage renewable energy & energy efficiency in new development.
- Energy efficiency in 'Hard to treat' homes.
- Advice to businesses – particularly Small and Medium Size Enterprises (SMEs)
- The extent to which public transport is accessible to and used by the public.
- Extent to which transport and economic policies and plans address reducing CO<sub>2</sub> emissions and climate change adaptation.

### **What people think the Council should be doing - Identifying Top Priorities**

17. From our Climate Change Scrutiny Conference for young people on 7 November 2008 and our own surveys, the most popular suggestions from the general public and young people in particular were for: **greater energy efficiency in existing buildings and greater use of renewable energy; more subsidised transport; and greater opportunities for recycling.** We are also interested in more sustainable procurement generally, particularly in relation to food and farming.

18. We have tried to ensure that our recommendations throughout the report deal with the gaps identified as well as the priorities identified by residents.



## RAISING AWARENESS OF THE ISSUE OF CLIMATE CHANGE

19. The need to tackle the effects of climate change is high on the political agenda both nationally and regionally and now seems to feature in the media on a daily basis. One of the ways in which the national government is raising awareness is by introducing a new Climate Change Bill, making the need to reduce green house gas emissions a statutory requirement.
20. The West Midlands region has a number of strategies to reduce emissions and adapt to climate change.<sup>5</sup>
21. At a local level, we wanted to find out more about how communities are being encouraged to tackle climate change and whether or how the County Council might be able to support any initiatives.

### Transition

22. We spoke to representatives of the Transition Malvern Hills Group, One Planet Worcester, and Colwall Greener. We would like to acknowledge the outstanding efforts of individuals in both raising awareness and taking action to tackle climate change.
23. For example, the Chairman of the Transition Malvern Hills Group is also one of the founders of 'The Fold' at Bransford - a not for profit community enterprise. It is an inspirational space to encourage sustainable living. It includes, for example, events, workshops, complementary therapies and an Eco café using locally sourced organic food. The building design demonstrates sustainable building techniques and materials in action. More information can be found at <http://www.thefold.org.uk>
24. 'Transition' is a grass roots movement that everyone can get involved in to tackle climate change and 'peak oil' issues locally at a level they feel is right for them.
25. Transition Malvern Hills is in the early stages of bringing together groups and individuals in taking practical actions from growing vegetables to using renewable energy. They have recently set up a website and are currently trying to build awareness and networks.
26. The Group have the backing of Malvern Hills District Council and the Local Strategic Partnership. 'Colwall Greener' can be described as an offshoot of transition Malvern Hills. More information can be found at <http://transitionmalvern hills.org.uk/transition/> and at

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<sup>5</sup> .The **WM Regional Energy Strategy** sets targets for reducing carbon emissions by sector along with a regional target for renewable energy equivalent to 5% of regional electricity consumption by 2010. Phase Three of the review of the **WM Regional Spatial Strategy** includes consideration of climate change. The **WM Regional Economic Strategy** includes objectives aimed at moving the region to a low carbon economy through improved energy efficiency, adoption of renewable energy and development of energy efficient technology.

<http://www.greener.colwall.info/> Other groups hope to start up in Pershore and Evesham.

27. **Transition and other similar organisations do a considerable amount of work at grass roots level and it is clear from our discussions with them that they can play a significant role in helping to reduce emissions and adapt to climate change.** They are involved in a number of projects from managing ancient orchards to helping local residents obtain smaller more manageable allotments. We did hear of occasions when these organisations wished to be able to talk to relevant contacts in the County Council for advice and assistance. Such contacts should have sufficient authority to decide on appropriate actions or levels of support.
28. Growing your own food is an important part of tackling climate change nationally and locally. It is a healthy outdoor activity and cuts down on the number of miles food has to be transported. One of our Councillors has initiated a Community Garden Project in Sidemoor (Bromsgrove) using the Primary Care Trust Grant scheme. He approached officers in the Country side service who were able to find suitable land. A secure shed for tools is planned as well as training in the nearby Housing Trust Kitchens on how to prepare and cook the resulting produce. Initiatives such as these play a significant role in harnessing local enthusiasm.
29. Another idea from Colwall Greener is to set up a group of volunteers to help older people prepare their lofts for insulation. One of the greatest barriers preventing older people from taking up the 100% grant available, is that they do not feel able to clear out the loft space, which often contains years of accumulated possessions. Interestingly, such possessions can have unexpected value. We were told that one 1970's Argos catalogue (from a collection found in an attic), fetched £120 on Ebay!
30. **We recognise the value of the work undertaken by these organisations and recommend that the County Council identifies a named senior officer to act as a contact point for Transition and other similar groups. We believe that if the County Council owns any land which might be suitable for local schemes, or for use (for example) as allotments, it should investigate further the possibility of making it available to volunteer groups (who could run their own scheme).**
31. Somerset had voted unanimously in September 2008 to become the UK's first 'Transition Local Authority'. This meant that they could now start taking an integrated approach to its planning processes, putting peak oil and climate change at the heart of its forward planning.
32. It could also help to unlock funds to support the many Transition initiatives emerging across Somerset.
33. We believe that Transition and other green groups run by committed individuals are often better placed (than the Council) to set up community actions to tackle climate change and we do not wish to alter this. **We recommend that the County Council should, like Somerset, formally commit to supporting and promoting transition and similar green**

groups.

34. The groundbreaking Transition Handbook, written by Rob Hopkins, describes clearly how people can move from feeling anxiety and fear in the face of 'Peak Oil' and climate change to developing a positive vision and taking practical action to create a more self-reliant existence. In Worcestershire libraries, at the time of writing, only one copy was available for loan in Kidderminster. **We recommend that The Transition Handbook (and other books of similar ilk) should be more widely publicised, made available and promoted in libraries and other establishments across the county.**

### Earthship

35. A group of Worcester teenagers have launched a campaign called the Hive project, which aims to promote sustainability and volunteering in the city. A key part of the project will be an "earthship" - a centre built from materials usually sent to landfill and capable of being self-sufficient by producing its own energy, electricity, sustainable drainage and sewage system. It could be used to inspire and teach others about sustainable living.
36. The first Earthship in England had been built in Brighton. It is a totally self sufficient building designed to work in harmony with nature with minimal impact on the local environment.
37. Once built, it is envisaged that the Worcester earthship will be open to the community and businesses, whilst acting as the new office for Worcester's young volunteers. The volunteers were in the process of applying for grants, organising fundraising events and creating information packs. They were currently very short of funding and could only produce very limited numbers of information packs.
38. County Council officers in Property Services are already supporting the group in their own time by providing technical knowledge, architectural design and help finding a suitable site. We believe the project will help raise awareness, particularly among young people, of what can be done to help make buildings energy efficient and tackle climate change. **We therefore recommend that the County Council should offer in kind support, such as printing and promotional material, as well as consider providing officer time from relevant directorates to help with, for example, finding sources of funding and completing applications.**

### Encouraging sustainable living

39. We are impressed by the success of Nottinghamshire's local sustainability magazine called 'Living for Tomorrow'. The aims of the magazine are to:
  - raise awareness about sustainability issues and options
  - inspire and promote positive behavioural changes in individuals and organisations
  - make healthy, sustainable lifestyles both appealing and achievable.

40. The word 'sustainability' and 'sustainable development' can seem like an abstract idea and difficult for people to turn into real every day actions. We feel it is much more appealing to badge it as tackling or adapting to climate change. This is the approach taken in Nottinghamshire where they call their sustainability magazine 'Living for tomorrow' rather than 'Sustainable living'.
41. It can be argued that 'sustainability' covers wider issues than climate change, such as bio-diversity (plants and animals in the environment), waste and transport. However, when we asked the young people at our Conference in November 2008 what they thought should be done to tackle climate change, suggestions included better public transport, wider opportunities for recycling and saving water, as well as more energy efficient buildings and renewable energy. Whilst we recognise the reasons behind the use of the word 'sustainability' we believe the term climate change is more likely to capture the imagination. **We recommend that the Council takes every opportunity to use the term climate change as an alternative to 'sustainability', eg, Sustainability Stewards could become Climate Change Stewards (or Champions).**
42. **We are very pleased that the Council's WOW magazine already includes articles and information about green issues and tackling climate change. We recommend that similar aims to those of Nottinghamshire's magazine are applied to a specific section of the County Council's WOW magazine as well as the Council's internal staff magazine.**
43. Like in Nottinghamshire, articles should have a broad appeal to school pupils, professionals, pensioners as well as committed enthusiasts. There should be articles on immediate opportunities to get involved in a small achievable kind of way as well as about inspirational projects.
44. Articles highlighting what local individuals and groups are doing to help combat climate change, and publicising opportunities for volunteering would also be beneficial.
45. **Every opportunity should continue to be taken to get the message across. In support of this we suggest that messages about promoting a greener lifestyle and reinforcing what staff can do to tackle climate change should be shown on the TV screens throughout county hall.**
46. **Facts about Carbon reduction in buildings:**
  - **45% of all present carbon emissions come from existing buildings, with 27% from homes**
  - **87% of existing buildings will still be here in 2050<sup>6</sup>**
47. As well as increasing the use of renewable energy, increasing the energy efficiency and insulation of existing buildings is one of the key ways in which local authorities hope to reduce carbon emissions and meet their targets. The County Council is therefore working with the Districts to help raise

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<sup>6</sup> From a Presentation by M J Kelly, Chief Scientific Advisor to HMG, at LGA Conference: January 21 2009, Manchester

awareness.

48. Residents with older properties can find it difficult to insulate their homes as, for example, they may not have wall cavities, or lofts suitable for insulation and planning permission could be difficult to obtain for external cladding or double glazing. The Marches Energy Agency were involved in a project to solve the problems of insulating older properties (see para 97)
49. **We recommend that greater practical help, advice and information should be provided to people on how they can make their homes more energy efficient, especially older houses. The Council should explore the possibility of working with suppliers, housing associations and District Councils, either creating or promoting Energy Efficient Demonstration homes showing available products, renewable technology and advice on how to obtain/install. At the very least, the Council's website should act as a signpost to other organisations' existing demonstration homes.**
50. The Bosch website shows a number of demonstration homes across Worcestershire, demonstrating for example: ground source heat and solar hot water systems; special paints which help regulate temperatures; triple glazing; and energy efficient light bulbs.
51. We watched a You Tube clip showing a Creative Energy Homes project by the University of Nottingham and the Energy company EON who are working together to develop and assess cost effective measures for reducing carbon emissions from typical ageing domestic properties.
52. The project is also a showcase of innovative state-of-the-art energy efficient homes of the future. Six homes constructed on the University Park will be designed and constructed using different aspects of modern methods of construction (MMC) including layout and form, cladding materials, roof structures, foundations, glazing materials, thermal performance, building services systems, sustainable/ renewable energy technologies, lighting systems, acoustics and water supply. The project aims to stimulate sustainable design ideas and promote new ways of providing affordable, environmentally sustainable housing.
53. We explored the dedicated website (link below) which showed how several companies including: Stoneguard, Roger Bullivant Ltd, E.ON, BASF, and Tarmac, had agreed to fund the project.  
[http://www.nottingham.ac.uk/sbe/creative\\_energy\\_homes/eon\\_uk\\_home/](http://www.nottingham.ac.uk/sbe/creative_energy_homes/eon_uk_home/)
54. We understand that the County Council cannot be seen to be actively promoting or endorsing individual commercial organisations. However, we believe that it is our role to highlight areas of good practice. There are many examples of companies in the County who are at the cutting edge of technological developments (including green technology). Worcester Bosch is one such example. **We recommend that links should continue to be actively developed between the Councils Economic Development Department and green technology companies in Worcestershire. The**

**County Council should promote and encourage the development of the green economy.**

## REDUCING WORCESTERSHIRE'S EMISSIONS

55. As previously mentioned, 87% of existing buildings will still be here in 2050 and it is essential that these buildings are insulated properly to save on CO<sub>2</sub> emissions. Domestic housing makes up around 30% of these buildings. In Worcestershire, according to our Citizens Panel 2007 survey, over one quarter of residents said their homes were not insulated properly. District Councils are largely responsible for promoting home insulation grants and encouraging residents to make their homes more energy efficient.
56. As part of Worcestershire County Council's Citizen's Panel survey 2007, residents were asked what would most encourage them to insulate their homes. Over half said that saving money on fuel bills and grants to help with costs were most important. On saving money, this went up to nearly 69% from our own survey.
57. Worcestershire County Council also works with District Councils to promote home energy efficiency. It is essential to get the message across that adequate insulation and efficient heating systems saves money on fuel bills. Wychavon did a heat seeking flyover which pinpointed those homes that weren't insulated and were losing a lot of heat. Information on free and low cost insulation was then directed to those homes. We are pleased that the County Council has got funding through the Local Area Agreement to do a fly over for the whole county and will be able to then target inadequately insulated homes.
58. We believe it is very important that information should focus on how much money can be saved on energy costs by properly insulating homes and using energy efficient heating. Reducing CO<sub>2</sub> emissions is still very important.
59. The County Council currently generates around 98,000 tonnes CO<sub>2</sub><sup>7</sup> every year from:
  - Landfill
  - Energy use in buildings
  - Staff Commuting
  - Travel for work
  - Street Lighting
  - Waste
  - Water
  - Land Management
60. In 2007/08, the County Council, using the Carbon Trust Local Authority Carbon Management Action Plan, managed to reduce its CO<sub>2</sub> emissions by 52%, (from 2003/04 levels). However, the forthcoming Carbon Reduction Commitment required by national government imposes a different method of calculating CO<sub>2</sub> emissions, which excludes landfill and transport emissions.

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<sup>7</sup> Estimate based on work by Property Services with the Carbon Trust as part of the Carbon Management Programme

## **Carbon Reduction Commitment (CRC)**

61. The Carbon Reduction Commitment (CRC) is a carbon emissions trading scheme, due to start in 2010. The Carbon Reduction Commitment (CRC) means that County and Unitary Councils and large organisations have to start trading in carbon emissions to pay for, in effect, their ability to pollute. It is anticipated that costs will begin at around £12 per tonne and then allowances will gradually reduce over time and costs increase so that it would become more cost effective for authorities to mitigate against the effects of climate change.
62. There will be a league table of Councils and organisations showing by how much they have managed to reduce their carbon emissions. Where a Council appears on this league table will determine the amount (of money) recycled back by the government. Those at the top will receive the most and those at the bottom will receive the least. This could potentially be very expensive for Councils.
63. Through the Carbon Reduction Commitment, organisations will have to work out how much CO<sub>2</sub> they are producing, and reduce it, or, pay significant amounts to buy emissions permits under the new proposals. Financial Services estimate that if we come at the very bottom of the league table of all participants, we would have a "worst-case" cost of £144,000 over the first three years of the scheme (April 2010 to March 2013).
64. However, making any sort of estimate for the subsequent years is much more difficult, because the price of buying allowances stops being a fixed price (£12 per tonne of carbon) and the price is based on a sealed bid auction. If the Council was again at the bottom of the league table in 2013/14 and 2014/15, it would pay a penalty of 30% and 40% respectively on the cost of the allowances bought in these years. So at £12 per tonne, this would be a cost of £250,000 for the two years, but this could be higher if the cost of the allowances soars once they go on the open market.
65. Just to be clear, what the Council will be paying for is not the cost of the allowances/permits themselves, as the payments Councils make for the allowances will be recycled back by government. What the Council will potentially pay is a percentage penalty, based on the Council's performance in reducing carbon emissions compared to other participants in the scheme.

## **How are carbon emissions measured?**

66. It is not possible to measure Carbon Emissions as such. The amounts of electricity, oil and gas used are known and each fuel has a 'carbon emission factor'. This information is used to calculate an estimation of the tonnage of carbon emissions.

## **Reducing carbon emissions from County Council buildings (including schools)**

67. We asked 'What do people think the Council should be doing to reduce emissions in its buildings (including school buildings)?' The most popular suggestions and top priorities from young people at our Conference on 7 November (and from our own surveys of the public) are for:
- Greater energy efficiency in existing buildings;
  - Greater use of renewable energy in existing and new buildings; and
  - Building schools in future which are adapted for climate change including renewable energy, low power usage and sustainable drainage – this will help encourage children and future generations to use sustainable buildings.
68. Having identified what the council is already doing and the gaps, we have a number of recommendations for how the council could further develop.

## **Energy Management**

69. The Council's existing Buildings Energy Management System, is run by two staff, which centrally monitor space temperature in over 260 council sites (mostly schools). This results in heating cost savings of around 15% compared to other UK authorities. However, the council is responsible for around 460 council buildings in total and we believe that further efforts should be made to increase the number of appropriate buildings in the system, where possible.

## **Carbon Reduction Commitment - Schools**

70. As mentioned previously, the Carbon Reduction Commitment is coming into force in 2010 and could cost the Council £400,000 in total over 5 years. The County Council will be made responsible for schools' CO<sub>2</sub> emissions, despite schools having separate dedicated budgets. The Council will therefore have to find a way of top-slicing the schools' budgets, or otherwise recovering the additional costs from the schools. It will also be necessary to incentivise schools to make CO<sub>2</sub> reductions, as they operate independently of LA control, and we can only advise them on energy efficiency matters. Encouraging schools to carry out energy audits is recommended at paragraph 114. Funding arrangements to schools is extremely complex and largely governed by statute. It is however clear to us that reviews to future funding arrangements will be necessary.
71. **We recommend that delegated budgets to schools should be revised in light of forthcoming Carbon Reduction Commitment, and any guidance issued in this respect.**

## Energy Manager

72. The council does not currently have an energy manager. One had previously been employed but had not been replaced after capital funding had ended. An energy manager's remit could include promoting best practice on air quality, energy efficiency and helping with the collection and collation of carbon reduction data across directorates. Currently, responsibility for collecting data on energy emissions rests with each directorate. No one person has the remit to monitor and record energy emissions or to seek out relevant sustainability/energy efficiency grant funding.
73. When reducing emissions is statutory, and the Carbon Reduction Commitment in place it will be essential to provide accurate data for benchmarking carbon emissions and reporting for National Indicators. The Council must ensure it is sufficiently prepared to provide this data.
74. Currently, each directorate is responsible for recording emissions on a complicated form created by the Department for Environment, Food and Rural Affairs (DEFRA), although responsible officers are yet to be identified.
75. It is recommended by the Chartered Institute of Building Services Engineers (CIBSE) that organisations should employ one Energy Manager per £2m spent on energy and water. The County Council spend about £5m per annum, (£3.3m on electricity and £1.7m on gas, oil and biofuels) and on this basis would need to employ 2.5 energy managers at a cost of approximately £80,000 per annum.
76. Our Chief Engineer advises that an Energy Manager could:
- save 10-15% of a Council's energy and water consumption through low-cost initiatives, for example, monitoring and targeting could prioritise 'quickest wins';
  - provide accurate data for benchmarking carbon emissions and reporting for National Indicators; and
  - implement spend-to-save initiatives and secure grant funding; and help raise awareness of the importance of reducing CO<sub>2</sub> emissions through publicity and energy campaigns.
77. We spoke to Paul Kennedy, an Energy Manager at City of London for 26 years, who has shown in graph form<sup>8</sup> how an organisation's performance on energy use is much better when it employs an energy manager, than when there is no energy manager.<sup>9</sup>
78. He believes that: "*The Energy Manager's main role is not to save energy himself but to organise, stimulate and encourage others. Success could*

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<sup>8</sup> The graphs compared 25 London Boroughs using the 'Energy Management Matrix'

<sup>9</sup> delivered during a presentation at the Energy Management Master class at the City of London on 28 January 2009

*(then) be measured when the atmosphere has been created in which we have all become energy managers”<sup>10</sup>*

79. The aims of the City of London’s Energy Team is to Reduce:

- Energy (kWhs)
- Costs (£s)
- Carbon-dioxide (tonnes).

80. Recruitment could be difficult as qualified professionals are in high demand and short supply. Grading and pay are dependent on market forces. However, we believe that the savings to be gained by employing an energy manager could far outweigh initial recruitment and wage costs. **An Energy Manager is essential if the Council is to achieve the necessary reduction in CO<sub>2</sub> Emissions.** CIBSE recommend one energy manager per £2m spend on energy. As the Council spends over double that amount, we feel that an additional energy officer is necessary and could help an Energy Manager realise further savings. **We recommend that a Corporate Energy Manager and Energy Officer be recruited at the earliest opportunity.**

#### Offsetting the costs

81. We believe the estimated £80,000 cost could easily be recouped within 2-3 years, particularly if an Energy Management Service is extended to District Councils on a fee-earning basis.

#### Spend to Save

82. Many energy-saving measures require up-front capital expenditure in order to reduce energy costs, for example replacing old light fittings in schools with new, low-energy fittings is a typical example. The cost can be recovered in 3-4 years, but schools often do not have the available capital to invest.

83. Nottinghamshire County has actively sought Salix funding to improve schools energy efficiency and this year has been granted around £500,000.

84. Salix is an independent, publicly funded company that provides match funding to the public sector, schools and businesses to allow them to invest in energy efficiency (invest to save). Set up in 2004, Salix had Government funding of £20 million and is an integral part of the UK Climate Change Programme.

85. The fund is available for schools to cover the capital cost of energy saving measures. The loan is repaid from the estimated financial savings a school will make from the reduction in energy bills. Once the loan is repaid the

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<sup>10</sup> •Henshaw Terry, Energy Manager’s Workbook, A Practical Guide for Boosting Profits by Improving Energy Efficiency. Energy Publication (Cambridge)

school can keep the on-going savings. For example installing cavity wall insulation, which will normally payback well within five years, will keep delivering financial and energy savings for an expected twenty plus years.

86. In Nottinghamshire, match funding of 50% means that this year, a total of £1m will be spent by September 2009, on energy saving initiatives at education sites.
87. Nottinghamshire County Council's energy team complete applications (which we are told are long and complex) and charge schools about 15% of the total cost for administration/paperwork costs. **It uses that income to pay towards the cost of employing a Senior Energy Officer.**
88. Additional income could be raised through the Energy Performance and Building Directive, which ensures that every public building above a certain size has to be graded for its energy efficiency and issued with a Display Energy Certificate (DEC). Many schools for instance fall within this category and are required by law to be graded by a qualified assessor. Nottinghamshire County Council plan to purchase software this year to enable them to train energy management staff internally to become qualified to assess the energy efficiency grading of buildings. **Any resulting income can be spent on other energy saving measures, or if necessary, towards the cost of employing an energy manager.**
89. We feel that Worcestershire County Council could be missing out on opportunities to access available funding for energy efficiency measures. Salix application forms are long and complicated to complete and must meet certain criteria. The Nottinghamshire energy team have taken over this duty on behalf of schools. Worcestershire does not currently have sufficient qualified staff to compete for these funds.
90. There would be benefit in such an approach and we feel that Worcestershire should emulate the best practice shown in Nottinghamshire. **We recommend that the role of a new Energy Manager and Officer (if appointed) should include setting up a similar scheme to that in Nottinghamshire to improve energy efficiency in schools. It should include applications for and administration of Salix funding on behalf of applicable Worcestershire schools.**
91. Based on advice from our Chief Engineer, other ways in which the council could reduce energy emissions are to make individual Directorates and managers accountable for the energy used by their Departments, and introduce Energy Committees to improve accountability through training, awareness and incentives.

### **Reinvesting energy efficiency savings**

92. Any savings made by installing energy efficient measures, should be clearly identified and reinvested in more energy efficient measures.
93. **Other authorities like Nottinghamshire have set up volunteer staff schemes for volunteer energy wardens to help with, for example,**

**recycling and reducing energy use. We fully support all of these actions and recommend that introducing such actions should again be included in the remit of an Energy Manager.**

### **Energy Partnerships**

94. The Marches Energy Agency (MEA) aims to help deliver on the UK's commitment to the climate change challenge, whilst helping to ensure that there is a sustainable, secure and affordable supply of energy for everyone.
95. The MEA focuses on the 3Ds: Demand Reduction; Decarbonisation; and Decentralisation. It specialises in working with the community. One of their current projects is the 'Community Sustainable Energy Programme' part of which involves carrying out energy efficiency feasibility checks on community buildings (eg Doctor's surgery).
96. Shropshire County Council established the Shropshire Energy Team in 1995 with the support of European funding. In 1998 it evolved into the Marches Energy Agency with funding this year of £1m with an additional £2m controlled for sustainable energy measures in homes, community buildings and small and medium sized enterprises.
97. Employees can be best described as 'Carbon Accountants'. They are very experienced in creating compelling successful applications for funding from a variety of European, national and regional sources. For example 'Keeping Shropshire Warmer' was a scheme to tackle fuel poverty. Because of grant funding, for every £1 spent by Shropshire County Council, £5 was actually spent on tackling fuel poverty. In Worcestershire, Districts worked with Act on energy to tackle fuel poverty.
98. We were impressed with the Marches Energy Agency European project 'SECHURBA'. Funding of 1.2m Euros had been obtained to find ways of making historic buildings more energy efficient and to study buildings and communities to identify barriers to integrating renewable energy systems. **MEA staff used** the new EU-funded regional resource, 'EU Connects' for the West Midlands offering advice and support to assist organisations in applying for European funding to deliver trans-national projects.
99. We are also impressed with Nottinghamshire and Derbyshire's Local Authority Energy Partnership (LAEP).
100. The LAEP was set up by senior officers about 12 years ago. There was an Officers Working Group which met once a quarter and ran the partnership on a day to day basis. An Annual General Meeting was also held, which Councillors also attended, where any major decisions were made. There was also an 'Advice and Information' group, made up mostly of HECA officers sharing information and best practice.
101. The groups have saved time and energy by producing joint responses to consultations, and sharing best practice information and providing training on guidance from government. Recent workshops included 'How to

calculate corporate carbon footprints' and 'Choosing Climate Change Indicators'.

102. We spoke to the LAEP's co-ordinator and Jessie Marcham, who was more involved with the public side and supported transition groups and others interested in saving energy. Two conferences had been held last autumn in Nottinghamshire under the heading Community Climate Action. These were aimed at groups and individuals and how they could tackle climate change in their own communities. There were speakers and workshops to help people get more involved. This had resulted in an email group of interested persons being established for information sharing purposes which they said they found very useful.
103. The LAEP is forming a partnership with the MEA. It is intended that the MEA will take over the running of the LAEP. The co-ordinator will be seconded to MEA and Jessie Marcham, will become an employee of MEA. Each member council will still pay the £1,500 annual contribution to fund the new partnership. One of the aims is to increase opportunities to access much more grant funding for projects.
104. An application for an Ashden award grant had recently been shortlisted and could be worth up to a possible £30,000. One of the LAEP authorities has also used Section 106 money for Low Carbon Community initiatives.
105. Worcestershire County Council has been successful in a number of applications for funding. For example £92,000 has been awarded for the **Warmer Worcestershire project**. Mirroring the work in Wychavon the project involves an aerial thermal imaging survey of the entire county to produce a heat loss map, to target properties for energy efficiency improvement measures. However, we still feel that more could be done to access other funding/grants to help tackle climate change and further reduce carbon emissions. **Working with the Marches Energy Agency could be one way of achieving this and we recommend that initial negotiations should take place to investigate possible future benefits.**
106. **These initial negotiations should explore the feasibility of working with the Districts, County and Marches Energy Agency, possibly to form an Energy Partnership with the aim of accessing European and other funding sources for a variety of projects. Other awareness raising projects using exhibition trailers such as the 'Light Fantastic' mobile trailer were also clearly of benefit and should be explored further.**

### **Energy efficiency advice in council buildings**

107. Schools have delegated responsibility for energy efficiency. The Property Services Asset Management Team plan to visit and assess buildings for energy efficiency at least every 5 years and are best placed to identify schools most likely to benefit from Salix funding. If a building is old or inadequately insulated, a condition survey will be carried out and it would be recommended, for example, that thicker insulation or better double glazing

should be fitted. In extreme cases, it was some times cheaper to knock down and rebuild.

108. During our Climate Change Scrutiny Conference, a teacher advised that he experienced some difficulty when he wished to fit an energy monitor/meter in the school to help pupils understand the amount of energy being used and encourage energy savings. He also felt that when heat was being lost through badly fitting doors and windows, such issues were often treated with insufficient importance by the school and the Council. He felt that some help should be available and it would be useful to have a contact in County Hall who could provide advice on where best to get help to resolve such issues. **We believe an Energy Manager would be best placed to provide energy efficiency advice and recommend that, if appointed, providing enabling advice to schools should form part of his/her role.**
109. **We believe that the Council should clearly show its electricity use and fit energy monitors in all its buildings, including schools, to both raise staff and pupil awareness of energy costs and encourage a reduction in energy use wherever possible. The TV display screens in County Hall should be used to frequently display energy use and cost.**

### **Eco-Schools**

110. In Worcestershire, 250 schools (80% of state schools) are registered as Eco-Schools and 45 have green flag awards. Eco-Schools encourage and empower young people to take action on climate change issues both in school, the local community and at home. **We would like to formally place on record our appreciation of the work and commitment of the Education for Sustainability Team. We are proud of their achievements.**
111. Children should be the driving force behind Eco-Schools, although the most successful schools are supported by their senior management team and deputy heads, who might have sufficient time and drive to allow the school to commit to the programme. Teachers often devote a great deal of time and effort and are generally not rewarded through their pay / responsibility grades. Clearly this is not just an issue for the County Council. **However, we recommend that that this Council lobby the Department of Children Schools and Families to introduce financial rewards in recognition of the importance of teachers work as Eco-School Co-ordinators.**
112. As part of becoming an Eco-School, pupils should for example, help carry out an audit to assess the environmental performance of their school. Through consultation with the rest of the school and the wider community, pupils decide which environmental themes they want to address and how they will do it. Action plans, measuring and monitoring are integral parts of the Eco-Schools programme.
113. The Learning for Sustainability Team work closely with the Property Services Team which had identified some schools with extremely high electricity use per pupil. For example, the Council's Chief Engineer had

calculated possible savings of about £30,000 per annum in one High School on electricity saved simply by turning off computers when not in use.

114. **We should not underestimate the huge contribution Eco-Schools can make to awareness raising, reducing CO<sub>2</sub> emissions and combating the effect of climate change. Given that the Council will be deemed responsible for school's CO<sub>2</sub> emissions when the Carbon Reduction Commitment takes effect in 2010, we feel that all schools should be encouraged to carry out energy audits. We recommend that the Council ensures that a named officer is made available to provide support and advice for pupil's energy audits in schools.**
115. **We further recommend that the profile of tackling and adapting to climate change (sustainability) should be raised and prioritised across all of Children's Services. There is considerable opportunity to expand Eco-School award type support in youth clubs and colleges to build on the strengths this County has in this field.**

#### **New school construction – financial regulations**

116. We are advised by our Chief Engineer, that the County Council could make new school buildings more energy-efficient, for instance, BREEAM Excellent rating<sup>11</sup>, but again the capital cost is often higher. In this instance, the capital budget comes from Children's Services but the operational energy budget is delegated to the schools, so if the Council pays more for an energy-efficient school, the school get the financial benefit! As a result, the capital budgets are limited and we sometimes find ourselves unable to afford low-carbon technology such as wood fuel boilers, solar panels and ground source heat pumps. We recognise that in designing future schemes the County Council needs to be realistic and have regard to affordability factors. Again, given the fact that the forthcoming Carbon Reduction Commitment will make Councils responsible for Schools' CO<sub>2</sub> emissions, **we recommend that school construction be as energy-efficient as possible.**
117. **We are impressed by Nottinghamshire's achievement of a 25% CO<sub>2</sub> reduction target mostly by an extensive programme of installing wood fuel boilers.**
118. Their wood fuel boiler programme, piggybacks on their Council's boiler replacement programme. Additional funding has been granted through all four rounds of Government's (originally Defra now the Department for Energy and Climate Change (DECC)) Bio Energy Capital Grant Scheme. This grant, which must be bid for, contributes to about 40% of the cost of the boiler replacement works, and negates the additional cost of installing a wood fuel boiler over a gas fuelled unit.

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<sup>11</sup> The BREEAM family of assessment methods and tools are all designed to help construction professionals understand and mitigate the environmental impacts of the developments they design and build.

119. The running costs of a wood fuel boiler compared to a gas boiler were 3.76p as opposed to 5p per kilowatt hour. Nottinghamshire County Council currently has 43 sites where wood fuel boilers are installed and this will increase to 50 sites by the end of September 2009. Overall savings to the council in works costs came to £2.6 million and resulted in a CO<sub>2</sub> saving of 6,500 tonnes per year.
120. Initial problems had been the lack of supply of wood fuel for the boilers. Nottinghamshire County Council had a stake in setting up a company to supply wood fuel and help stimulate demand for such fuel. There was a three-year cycle for short rotation coppice – willow. Other fuel pellets could be made from wood waste, sawdust, fencing and forestry residue from estates. **The most important aspect of Wood fuel boilers is that they are considered Carbon Neutral. The amount of carbon emission is offset by the amount absorbed by growing the wood fuel (normally 3 years of short rotation coppice) a tremendous help in reducing future emissions.**
121. Worcestershire also has a boiler replacement programme, mostly more efficient gas boilers, and has on a few occasions obtained Bio Energy Capital Grant. There are just over half a dozen wood fuel boilers in Council buildings and we feel that there are opportunities to increase this number.
122. **We recommend that the Council continues to identify schools (and any other) sites which have sufficient capacity for wood fuel boilers and explores every opportunity to make use of Bio Energy Capital Grant Scheme funding. It should also investigate ways of stimulating demand and growing the market for local wood fuel supplies, which has the added benefit of helping the local economy.**

### Renewable energy

123. Solar, wind and ground source heating systems should be considered wherever possible by schools, other council buildings and individuals. Current thinking in the Council is that these measures must be cost effective. However, it can be very satisfying to get free hot water from a solar hot water system. Even if it costs more initially than a conventional hot water system, at least there is the satisfaction of zero carbon emissions. If grants are available, renewable energy can be more cost effective and should be used at every opportunity. In future, the world's fossil fuels will become more difficult to extract and therefore more expensive and there is no doubt that renewable energy will become more cost effective. Whilst the council must demonstrate value for money now, individuals can indulge their desire for renewable energy products. For example, some will find great satisfaction and pleasure in owning, say, a solar powered coffee machine or solar powered lap top charger.

## Street lighting

124. The Climate Change Scrutiny Conference for young people on 7 November included an electronic voting session. As part of this, attendees were advised that last year the County Council spent £1.2m on energy to light our streets, predicted to increase to £2.1m this year. We were surprised by the mixed response to the question 'How much do you agree that we should save energy by switching off streetlights in the early hours of the morning? Approximately one third agreed, one third were not sure and one third were against.
125. We therefore asked our Street Lighting Engineer what else the County Council could do to reduce emissions and any future plans, including use of renewable energy sources.
126. The County Council uses 100% green electricity (from sustainable sources). The cost was very slightly higher than ordinary fuel.

### Can street lights be switched off during the early hours?

127. In order to switch lights off during the early hours of the morning, Part Night Photocells will need to be fitted to each lighting column. A 50W Part Night Photocell typically costs £30 and could save about £13 per annum per light. Added to this would be the costs of consultation. Savings for 500 light units would amount to £6,545 for energy and 50,570 kg CO<sub>2</sub> annually. The cost of energy at night is much cheaper, and if night time requirements change significantly, this may have an adverse impact on the Council's existing energy supply contract. Currently, West Mercia Supplies negotiates a preferential rate based on combined day and night need over 24 hours.
128. If an accident occurs where a light is out of order (which had been reported and not repaired) the council could be liable if it is found to have contributed to or caused the accident. It is not clear whether the council might still be liable if it chooses to switch the lights off. Only through case law could the situation be clarified.

### Essex Pilot

129. A pilot by Essex County Council is using Part Night Photocells on about 300 of its lights (out of a total of 100,000) mainly in rural areas. Some residents were reportedly not too happy and had concerns about safety but level of crime figures showed no increase. Energy savings of 22% had been achieved in trial areas as well as savings on CO<sub>2</sub> emissions.
130. Current Council policy is not to turn off lights at night. Whilst this is appropriate in some areas where, say, residents feel safer with lighting throughout the night, we feel there are opportunities to save energy in other areas. Some residents might welcome a reduction in light pollution. Given the urgent need to tackle climate change by reducing CO<sub>2</sub> emissions and energy costs, **we recommend that the street lighting team continues to identify appropriate areas (where it is deemed unlikely to affect public safety) and carry out pilots for switching off street lights during the**

## **early hours.**

### LED lights

131. There was a commonly held belief that LED lights would save significant amounts of energy. We have seen tables showing LED lantern types, wattage and level of light emitted, which, compared to existing lights (emitting the same level of light) showed only slightly less energy use. LED lamps currently on the market only have a one year guarantee. As the technology improves and sales increase it is expected that prices will drop and that LED lights will become more cost effective in future.

### Turning off every other light

132. **People frequently ask 'Can, say, every other street light be turned off to save money?'**
133. This has been considered county wide and discussed by the Street Lighting Team. Turning off every other light is not always possible as there is a European standard for lighting levels in certain traffic conditions which have to be met, or the council could be liable for prosecution.
134. However, the lighting team has looked at a number of solutions ranging from turning off lights, fitting dimmer switches, trimming (altering the times when lanterns are turned on later and off earlier) and using photo electric cells in lights, bollards and signs. We are impressed with how the Street Lighting Team has studied the detailed costs and savings for each possible solution.
135. Some lighting had originally been installed because of 1960s shift patterns which now no longer applied. The Street Lighting Team has looked at whether some lighting could be removed and question whether there is still a need to light rural dual carriageways.

### Removing street lighting

136. There is a high capital cost to removing street lighting if it is not required on a dual carriageway. Reflective road studs would need to be fitted and the lighting columns would need to be disconnected and removed.
137. If lights are turned off on other road categories, existing lamp posts still have to be checked. Corrosion occurs from the inside. An incident had cost one authority about £3m in compensation when one of their lighting columns collapsed.

### Dimming

138. Rather than removing lighting, it can be more cost effective to save energy by introducing a piece of equipment to dim lights at night (in areas where this is appropriate). The cost of the dimming equipment for each lighting column is about £90. Warwickshire is trying out such equipment and the street lighting team would like to carry out a pilot in Redditch. For example,

depending on traffic flows, applying maximum dimming to 200 (250 watt sodium lights) could result in energy savings of £12,746 per annum and annual CO<sub>2</sub> savings of 62,224kg with a pay back period of a little as 1.4 years. Applying lesser dimming to 1000 150 watt sodium lights could result in energy savings of £26,890 per annum and annual savings of 101,090kg CO<sub>2</sub> emissions.

139. Although dimming might be more cost effective than turning off and removing street lighting, we still felt a case could be made to simply not have every other light on in some areas. If a person has two lights in their sitting room, they can simply choose not to turn one on permanently without having to remove or disconnect the wiring. Unfortunately, the same does not apply to streetlights as there is a need to maintain uniformity. Turning off every other light would create dark patches and again leave the Council liable to prosecution should an accident be caused.

#### Photo Electric Cells (PECs)

140. Photo electric cells (PECs) in each light column turn lights on and off depending on the level of natural light. Street lamps normally come on just before sunset and go off just after sunrise. New PECs are now available which only use 0.25 Watts instead of 3 Watts. Each new PEC costs about £23 has a 12 year guarantee and realises a cost benefit in maintenance. All streetlamps have to be inspected annually and the lamps in light columns have to be replaced every 3 years. Inspection zones are being reorganised to combine fitting the new PECs at the same time.
141. If 30,000 fittings are replaced, this could result in annual energy cost savings of £79,500 and annual CO<sub>2</sub> savings of 387,900kg. Lights in Redditch have already been converted leaving 31,000 still to do across the county. **As the Council needs to do everything it can to reduce energy consumption, we fully support the capital bid for this work which has been submitted for 2009/10.**

#### Bollards and signs

142. Blue arrow bollards are normally lit all the time and ways of reducing this energy consumption are being considered. Photo electric cells are not always suitable as car headlights could cause them to switch on and off. New designs are now available using light sensitive infra red switches. Bollards are also often prone to vandalism and so more resistant flexible ones are used where necessary. These can be driven over at 30mph and are flexible enough to return to an upright position with light intact.
143. Unlit reflective flat blue arrow plates are not legal in this country unless a dispensation is obtained to use them, and only then in an area which already has a lit traffic feature, such as the junction at the Ketch Island in south Worcester.
144. Some road signs are being deregulated as new reflective materials are so effective, removing the need for lit signs. Officers feel more could be done to increase the number of deregulated signs and are feeding this in through

the County Surveyors Society and Lighting Board. Some political backing for this could be helpful. **We recommend that Cabinet lobbies the government to increase the number of deregulated signs on appropriate sites.**

#### Solar power

145. Where electricity supplies are unavailable, difficult or expensive to connect, the authority is trialling solar panel powered bollards using LED lights. An example can be found at Black Bridge on the A449.
146. These type of bollards cost more but are financially viable as there is no need to pay an electricity connection charge (about £300). It is however not cost effective to replace existing bollards with these as it normally costs about £300 to disconnect the electricity supply.
147. Although solar powered lighting is currently not adequate for highways, some solar lighting or beacon signs by a bus stop for example are being considered for some rural parishes.

#### Solar powered lights

148. Solar powered street lighting equipment is currently quite limited and expensive. The size of solar panel needed to produce enough energy for the lamp to be illuminated for any reasonable length of time is very large. Also, a large number of batteries would be needed to store the energy for nighttime use, and these would need replacing every few years.
149. Wind and solar powered signs have been trialed in other authorities. Wind and solar powered lighting columns need to be a minimum height of 8 metres to avoid damage through vandalism.
150. **We conclude that in future, energy costs will inevitably rise further. Challenging targets to reduce emissions need to be met to avoid high future carbon trading costs. It is therefore essential that the council explores every avenue to reduce emissions and save on energy costs.**

#### **Climate Change Pledge**

151. Part of the Worcestershire Partnership Climate Change Strategy is to develop a "Climate Change Pledge" that **individuals** can sign up to demonstrate their commitment to take action on climate change.
152. We were impressed with Nottinghamshire's 10,000 one to one and on-line pledges and suggest this might be useful to consider in Worcestershire.
153. We also looked briefly at The (City of London) City Climate Pledge, a new initiative, designed to help companies in the City of London play their part in the global fight against climate change. By signing up to the Pledge, organisations demonstrated their commitment to tackling the challenge of climate change head on by:

- Publishing their carbon footprint and reporting on progress made in reducing their environmental impact
  - Measuring and monitoring the carbon footprint arising from business activities
  - Mitigating the amount of carbon produced by enhancing the efficiency of day-to-day operations and
  - Maximising the effectiveness of any carbon offsetting for any unavoidable emissions (in accordance with the UK Government Code of Best Practice).
154. As well as enabling companies to stand out amongst their competitors, the Pledge helps organisations establish a starting point to save energy and reduce waste - one of the easiest ways to increase profitability.
155. The City Climate Pledge was being delivered by the City of London in partnership with BRE<sup>12</sup>, which was acting as core provider of carbon management advice and support for the Pledge and PURE, the UK's leading carbon offset charity.
156. **We like the simplicity of Worcestershire's one, two and three star Climate Change Pledge for organisations and businesses and recommend this should be marketed and promoted particularly to target more businesses.**

<http://worcestershire.whub.org.uk/home/wcc-sustainability-climate-pledge-0809.pdf>

#### **What are other organisations doing in Worcestershire?**

157. We have not had time to map what other organisations in Worcestershire are doing to combat climate change or whether perhaps the University of Worcester (like Nottinghamshire) might be able to contribute to other climate change related projects. We feel it would be useful and therefore recommend **that this Council should in future begin to map which and what organisations are doing in the county to combat climate change, identify gaps, and find out how they measure the effectiveness of what they are doing (outcomes).**
158. We envisage a web presence showing a list of all agencies in the county which support carbon reduction, providing advice or opportunities for action on tackling climate change. This would help give an overall picture of what

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<sup>12</sup> Building Research Establishment. The BRE Trust Companies, BRE and BRE Global, are world leading research, consultancy, training, testing and certification organisations delivering sustainability and innovation across the built environment and beyond. Their mission is to 'Build a better world'. They aim to help clients create better buildings and communities.

BREEAM (Building Research Establishment Environmental Assessment Method) is the de facto measure used to describe a building's environmental performance.

is happening in the county and help with information sharing for existing groups. We feel that partners should contribute to this mapping exercise which should be led by the County Council.



## **PLANNING TO ADAPT TO CLIMATE CHANGE**

159. The Government expects planning authorities to reduce emissions and adapt to climate change. It produced Planning Policy Statement (PPS) 1 in December 2007. Planning has a pivotal and significant role to play in addressing the challenges posed by climate change. The Government has set out an ambitious timetable for the progressive tightening of building regulations with the aim of all new homes achieving zero carbon by 2016.
160. Planning Policy Statement 22 (2004) Renewable Energy, encourages planning bodies to promote and encourage, rather than restrict, the development of renewable energy sources.

### **Planning Framework**

161. The Government had brought about substantial reform, in Planning Policy Statement 12, Spatial Planning (2008).
162. The Development Plan is the starting point for consideration of any planning applications. It consists of the Regional Spatial Strategy (RSS), prepared by the Regional Planning Body, and the Local Development Framework (LDF), prepared by District/Borough Councils. The West Midlands Regional Spatial Strategy is in the process of revision.
163. The Core Strategy is the principal and most important document within the LDF and must generally conform to the RSS and closely relate to the Sustainable Community Strategy for the area.
164. The Core Strategy should include strategic objectives for the area focusing on the key issues to be addressed, which must always be backed up with evidence from the local community and background facts.
165. The Sustainability Appraisal (SA) appraises the environmental, social and economic effects of the plan. This could be part of the evidence base. Climate change issues should be embedded in the SA.

### **Work of the County Strategic Planning Team on climate change**

#### Role

166. The Planning and Compulsory Purchase Act 2004 states that: "*A County Council in respect of so much of an area for which there is a District Council must keep under review the matters which may be expected to affect development of that area.*"
167. The Strategic Planning Team provides advice to the Regional Assembly on the revision of the RSS - and then commented on the RSS revision of climate change policies and the effect of the scale and distribution of growth within the county.<sup>13</sup> The County's Strategic Planning Team also commented

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<sup>13</sup> (see Worcestershire County Council's Cabinet Agendas and Minutes of 22 February 2007 and March 2008).

on the consultation versions of the District/Borough Council Core Strategies.

168. Another way in which the County Council advises the District Council is via the production of technical research papers to inform the preparation of the RSS, Core Strategies and the Sustainable Community Strategies. These papers include:

- 'Planning for Climate Change in Worcestershire';
- 'Planning for Renewable Energy in Worcestershire'; and
- 'Planning for Water in Worcestershire' (with Environment Agency and Severn Trent Water).

169. The County Council also organised a training event for County and District Planners specifically on climate change in autumn last year. This had been run by the previous President of the Royal Town Planning Institute, who was very impressed with the technical research papers and believed Worcestershire was at the forefront of providing advice to its Districts.

### **Response of Planning to the Climate Change Challenge**

170. The main dilemma for planners is the need for bold action. Even with effective policies in place tomorrow we would still experience changes in climate over the coming decades, so need to prepare and adjust now, yet (according to government guidance), planning policy should only proceed with a robust evidence base and should not place an undue burden on developers.

#### *The Merton Rule*

171. The Merton Rule is the ground breaking planning policy which initially required new buildings over a certain size to have a minimum of 10% of energy requirements provided by renewable energy sources. Some Districts have increased this to 20% and even 30% in some cases. Around half the District Councils in the Country are already applying or are about to apply the principles of the Merton rule to help reduce future carbon emissions. How it is applied varies. Some might 'expect' developers to apply the 10% rule whilst others 'require' it. Some, like Merton, only apply it to commercial developments, whilst others like Croydon, also apply it to residential developments.

172. In Worcestershire, the Scrutiny Task Group members asked District Planning Officers whether the Merton rule was being applied. The responses received were mixed. For example an extract from the South Worcestershire Joint Core Strategy Preferred Options September 08, showed that 'larger schemes would be expected to provide at least 20% of the energy used from an onsite renewable source', whereas an extract from the Wyre Forest District Core Strategy Preferred Options Report (January 2009), showed that 'a minimum of 10% of the energy requirements of new developments should be met from low or zero carbon energy sources'. It

went on to say that 'free-standing renewable and low carbon energy developments would also be supported within the District subject to them complying with all other relevant polices within the LDS'.

173. **It is clear that there is a lack of consistency in the Districts in the percentage of renewable energy required in new buildings (and whether it applies to homes or commercial properties) in their individual Core Strategies.**
174. It is also clear that some Districts in Worcestershire are not as advanced as others in the UK in Planning for tackling climate change. Possible explanations are that a lot depends on individuals within each Authority and the level of political leadership and support for tackling climate change issues.
175. Another factor is knowledge and awareness of climate change issues and District Councils are often hard pressed to get their traditional planning work completed.
176. **Whether or not a development is meeting the 10 or 20% target should not be the main focus. What is important is forcing developers to consider renewable energy and get the debate going.<sup>14</sup> There should however be some flexibility in its application. Planning should ensure that new buildings are as energy efficient as possible. The Merton rule is encouraging the building industry to learn how to work with renewables, although perhaps not in the most efficient way. It also encourages the expansion of renewable energy technology businesses – an opportunity for growth in the economy.**
177. Whether District Council Planners have sufficient knowledge and expertise to, for example, apply the principles of the Merton rule and then monitor that a development is in fact using 10 or 20% energy from renewables could be an issue.
178. District Councils should be satisfied that District Planners have sufficient support and training in new skills required to apply climate change planning policies. There is also a national shortage of qualified strategic planners.
179. **The County Council needs to take a strong leadership role. County Council Planners should exert influence through the preparation of evidence to inform the work of the District Planners. County Council Planners should advise District Councils, for example, that Merton rule principles should be more vigorously applied across the County.**
180. There is a unique opportunity for the Council to contribute to reducing carbon emissions and tackle climate change. However, a huge cultural shift is required at both a personal and organisational level in order to reduce emissions sufficiently and prepare for a warmer future. In accordance with the wishes of most people in Worcestershire, **we recommend that Climate Change must become a Corporate Priority.**

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<sup>14</sup> Says London Borough of Merton's Cotterill (from an article in ClimateChangeCorp – Jan 2009)



## PROCUREMENT

181. People are concerned nationally about the amount of food being transported by air and sea thousands of miles across the world, resulting in ever increasing carbon emissions. Some local people we spoke to (children and adults) living next to apple orchards, find it ludicrous that apples in their lunch box have been flown in from say, South Africa or shipped in from South America. The food is frequently treated to give it greater shelf life to survive the journey, often with chemicals derived from the oil industry, again increasing the carbon footprint. It is also likely to need more protective packaging. Locally sourced food, however, cuts down the need for transport, chemicals and packaging, resulting in a far lower carbon footprint. It is an important part of tackling climate change. **We believe that the Worcestershire Partnership Climate Change Strategy should place more emphasis on the need for localised food procurement and supplies across the partnership.**
182. The aims of the Council's Corporate Procurement Strategy 2008-11 should be updated to reflect the increasing importance of sustainability and tackling and adapting to climate change. **We recommend that the Sustainable Procurement Strategy should specifically refer to promoting and encouraging locally sourced food at every opportunity.**<sup>15</sup>

### Locally sourced food

183. The County Council is responsible for purchasing comparatively little food. However, hot community meals are delivered via a quite complex contract with WRVS. This is in effect a delivery contract for 268,000 meals annually, 7 days per week, 365 days per year using 65 or so separate delivery rounds.
184. The County Council is however in the process of re-tendering the contract for 2010. Members are concerned about the amount of waste packaging, particularly foil trays and the lack of local produce in these meals.
185. Concerns were also expressed in the recent scrutiny report 'Meal Provision for Older and Vulnerable Adults' (December 2008). It recommended a number of sustainable elements for a new community meals contract, which included consideration of meal packaging and disposal, source, heating and transportation methods.
186. **We support the recommendations made in the recent 'Meal Provision' scrutiny report and recommend that the new contract for food provision should actively encourage tenders with reduced packaging and local produce.**
187. The Council has three residential establishments in Pershore, Worcester and Malvern. A contractor supplies food which is cooked on the premises.
188. The current contract for catering at County Hall is held by Eurest Services, part of the Compass Group, one of the largest world wide catering

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<sup>15</sup> See page 54 of Worcestershire County Council's Procurement Code

companies. The Contract has been in place for about four years and ends in March 2010. Although attempts have been made, it has not proved possible to amend the existing contract to favour locally sourced produce; however, it has been adjusted to include fair-trade products. **We strongly encourage further attempts to favour local produce.**

#### School food procurement

189. Schools in particular should, where appropriate, be given every opportunity and advice on how to source food locally.
190. Most schools in Worcestershire use private contract caterers and they use their own food suppliers. The three main companies are Class Catering, Shire Services and Alliance in Partnership.
191. We are advised that the County Council's catering team is very keen to encourage caterers to use local and seasonal food. They advise schools on the type of questions to ask during the tender process and recommend that schools ask contractors to show evidence of how they procure food and use local produce. Most schools are very keen on this and are swayed towards a contractor that can specifically state the origin of its stock.
192. A pilot with a company called "Fresher by Miles" involved 8 schools in the Evesham area. It was funded by DEFRA for a year, and was, unfortunately, not sustainable in the long term.
193. Many caterers and schools work with "Heart of England Fine Foods". They promote and support smaller local suppliers.
194. Two Worcestershire schools, Franche Primary and Stourport High, are flagship schools as part of the Soil Associations food for life partner (for more information visit [www.foodforlife.org.uk](http://www.foodforlife.org.uk) ). This means that they commit to providing meals that are 75% freshly prepared, 50% local and 30% organic, and more than 70% of pupils are choosing to eat school meals. **We recommend that Children's Services further encourage Worcestershire schools to take part in the Food For Life Partnership.**

#### PFI Schools

195. Members are concerned that PFI schools provide school 'soft' services for the life of the contract (normally 25 years). This means, for example in Bromsgrove PFI schools, loss of Council control over services such as catering, waste and energy management.
196. We are advised that some parents were concerned that Halal meat was being used in one Bromsgrove school and that food was supplied to another from Bristol. We believe that schools should have greater influence over the source of food being consumed by their children. **We recommend that the Council should negotiate further with existing contractors and ensure greater flexibility in future contracts.**
197. We are also advised that lights in a PFI school were unnecessarily left on at the end of the school day and are concerned about energy efficiency over

the life of PFI buildings.

198. **We recommend that the 25 year management contracts for the forthcoming Building Schools for the Future PFI should contain Performance Indicators (or at least a requirement) to ensure minimum CO<sub>2</sub> emissions and maximum energy efficiency over the life of the contract. Requirements to promote locally sourced food and ensure more recycling of waste should also be included. We further recommend that climate change adaptation measures are incorporated into all new building designs. Designs need to be flexible enough to allow for increasing temperatures and downpours in future. Should oil prices rise prohibitively, plans for alternative energy supplies should also be in place.**

### **Reward scheme for food outlet businesses**

199. We were impressed with 'Notts Nosh' - a guide to where fresh locally produced food and drink can be bought in Nottinghamshire. It is produced by 'Experience Notts', an organisation which promotes tourism and Nottinghamshire as a destination for visitors. It promotes buying local food, and has an index and full details of local food businesses and suppliers, indicating which products are organic. It lets people know when and where farmers markets are held. It has information about vegetable box schemes, local bakeries as well as details about the various farm shops.
200. Although Worcestershire has a local food finder in it's on line green directory, we feel that there would be benefit in making some hard copy information available and promoted in public buildings.
201. The Worcestershire Welcome Awards 2009 run by Destination Worcestershire, asks people to nominate their favourite establishment. We are pleased that one of the categories includes best food outlet (pub, restaurant café) which uses local produce. 'Tastes of Worcestershire' also promotes and publicises local food producers.
202. In Lincolnshire we are told, there was a very good scheme to support local produce for hotels, restaurants and B&Bs where they displayed an immediately recognisable sticker in the window if at least 3 items on the menu were locally sourced. **We recommend that the Council should set up a similar award recognition scheme which immediately identifies quality food outlet businesses (eg restaurants, pubs and cafes) which provide at least 3 locally produced menu items.**

### **ICT Procurement**

203. The County Council's use of electricity has been increasing over recent years, due largely to changes in how the council works. For instance, people now expect to be able to access council services and information 24 hours per day on line via the Worcestershire Hub. Previously, coolers for computer servers could, for example, be turned off overnight, but this is no longer possible due to levels of use. Schools also now have greater reliance on IT. Interactive white boards and projectors for example have

also contributed to increased energy use.

204. US physicist Alex Wissner-Gross claims that a typical Google search on a desktop computer produces about 7g CO<sub>2</sub>. Two searches would be the equivalent of boiling a kettle. However, these figures are disputed by Google, who say a typical search produce only 0.2g of carbon dioxide. A recent study by American research firm Gartner suggested that IT now causes two percent of global emissions.
205. There is no doubt that an increasing need of IT use is increasing our carbon footprint. We are however aware that the council is taking steps to offset this. For instance, considering the impact on energy use of any new IT projects is now a standard requirement. Other actions taken include:
- Reducing the number of file servers by 40
  - Investigating the use of virtual servers to further reduce numbers
  - Moving from CRT displays to flat screen
  - Removing 90% of local printers, and replacing with group printers
  - standardised power management on all PCs following the Office 2007 rollout
  - Increasing use of remote control facilities, reducing the need to travel to fix problems
206. **We recommend the introduction of low-carbon procurement policies for ICT.**

## **Transport**

207. The Council works hard to improve sustainable travel, by encouraging people to walk, cycle or use public transport (Choose how you move) and introducing school and work based travel plans.
208. The Choose How You Move campaign includes schemes which will significantly boost Worcester's sustainable travel infrastructure allowing much improved movement between the southwest and southeast of the city. The schemes have also included for example a series of improved cycle and walking signs as well as improved park and ride facilities.
209. The most popular suggestions from young people we spoke to were for more sustainable travel such as:
- Free or subsidised public transport for those in full time education
  - A better network for rural areas with more footpaths on roads to bus stops
  - Safer walking and cycle routes.
210. The Council is unfortunately not able to afford free travel for all those in full time education but does provide help in some cases. **However, we do support further investigation at the appropriate time into the feasibility of operating a Council run school transport system in some areas.**
211. **The Council has carried out Transport Reviews in each District across the County. We recommend that the Environmental Services**

**Directorate ensures that the Council's Integrated Passenger Transport Strategy supports an improved network for rural areas with more footpaths on roads to bus stops and safer walking and cycle routes.**

## **Waste**

212. The most popular suggestions from young people and the public of what more the council should do to tackle climate change included:
- Wider opportunities for recycling
  - More recycling collections in schools
  - Provision of recycling bins in high streets.
213. The County Council has run successful campaigns such as 'Mission Impossible' to help encourage more recycling. **We would like to see more recycling collections in schools and would encourage those schools which do not currently have adequate recycling facilities to seek out opportunities.**
214. Another issue for schools is how to deal with plastic bottles. One High School, in its desire to promote healthier lifestyles had removed its fizzy sugary drinks machine and installed bottled water machines and now had mountains of discarded empty water bottles. The route of the problem is not that the school has no recycling facility, but the behaviour of pupils and acceptance of a throw away society. One solution is if the school had a rethink and refused to accept throw away behaviour, pupils could keep their water bottle, rinse and re-fill, and then only put bottles in their recycling bin at home when they are beyond further use.
215. A popular way of challenging such unsustainable types of behaviour is to use the strap line: **Rethink, Refuse, Reuse, Reduce, Repair, Recycle.**
216. Other suggestions for waste (from the Conference event in November 2008) were:
- Minimise use of landfill by raising awareness of what happens to the rubbish and what effect it has on the environment
  - Encourage reduced packaging on products
  - Ban plastic bags in Worcestershire
  - Set up community rubbish centres manned by volunteers (in areas where people need more help to recycle).
217. The Council already supports school visits to recycling and landfill facilities to raise awareness. The Council is not responsible for packaging, plastic bags or community rubbish centres, **however, we encourage people to form or join groups to lobby for even less packaging, campaign to ban plastic bags, and set up voluntary groups to help with recycling if this is appropriate in their local area.**

## **Water flooding and drainage**

218. Water is a vital resource, and is a subject area of great importance to planners. As the Climate warms, more violent storms and flash floods are predicted. Average annual rainfall is however predicted to decrease, leaving some areas vulnerable to drought. The County Council has produced, with the Environment Agency and Severn Trent Water, a technical research paper 'Planning for Water in Worcestershire'. It provides a consistent and positive planning framework for water issues. The paper identifies the key issues and best practice examples surrounding the management of water in the County so that water related issues can be properly and strategically planned for.

## **Mapping flooding and drainage assets**

219. The Worcestershire Land Drainage Partnership was established by the County Council as a positive response to the 2007 summer flooding events. It brings together various organisations with responsibility for drainage. Membership includes representatives with responsibility for drainage from the County and each of the District Councils as well as the Environment Agency, Severn Trent and local farmers and land owners. The Partnership formed (since autumn 2007) to work together to reduce the likelihood of flooding by promoting and, where appropriate implementing, robust maintenance regimes. Part of this includes the preparation of a map of local flooding and drainage assets which will be crucial for planning in future. **We recommend that the impact of future climate change, (not just flooding, but other extreme weather such as heat waves, which are also likely to become more frequent & severe), on services, assets & communities is considered and planned for across the Council.**

## **CONCLUSION**

- 220. The County Council need to reduce carbon emissions by 80% over the next 40 years and plan to adapt to the effects of climate change. The message is getting through and some people are beginning to change.
- 221. We have found that Worcestershire County Council is doing more than many other authorities. It has more Eco-Schools than most other authorities, residents are encouraged to travel more sustainably, recycling rates are relatively high and in house staff have developed an expertise in low carbon building design.

### **Top Priorities**

- 222. The top priorities for tackling climate change, suggested by the general public and young people in particular, were for: greater energy efficiency in existing buildings and greater use of renewable energy; more subsidised transport; and greater opportunities for recycling. We feel that more sustainable procurement generally, particularly in relation to food and farming is also important.

### **What more can the County Council Do?**

- 223. However well a Council or organisation performs, there is always room for improvement. Having identified what the Council is already doing, we have found a number of areas where we feel that the Council could do more. We have tried to ensure that our recommendations throughout the report deal with these as well as the priorities identified by residents. We have made over 30 recommendations, ranging from, for example, providing greater practical help, advice and information to people on how they can make their homes and businesses more energy efficient, especially older properties; to more support for volunteers and encouraging a higher percentage of renewable energy particularly in new buildings and more sustainable procurement.
- 224. Other recommendations include employing an energy manager, seeking ways to attract more funding for energy efficiency measures and more support for schools. Others seek to address loss of Council control over services such as catering and waste in PFI schools.
- 225. The three main planks of the revised Worcestershire Partnership Climate Change Strategy, are to raise awareness, reduce CO<sub>2</sub> emissions and adapt to the effects of climate change. We have also suggested that the revised strategy should place more emphasis on locally sourced food.
- 226. We hope this scrutiny can raise awareness further of the need for action and that people are reassured that the Council is working hard to tackle climate change. It is clear that whatever plans the Council make to tackle and adapt to climate change, a huge cultural shift is required by individuals and organisations at both a personal and cultural level in order to reduce emissions sufficiently and prepare for a warmer future.



## FINDINGS AND RECOMMENDATIONS

The main findings and recommendations are listed below. The paragraph number to which they relate in the main body of the report, along with which Directorate/s is/are responsible (or the County Council as a whole), is also shown in brackets where appropriate after each recommendation. These are abbreviated as follows:

**CC** (County Council), **A&CS** (Adult and Community Services), **CS** (Children's Services), **Env** (Environment), **Corp** (Corporate Services), **FS** (Financial Services), and **PEP** (Planning Economy and Performance).

### Transition

'Transition' is a grass roots movement that everyone can get involved in to tackle climate change and 'peak oil' issues locally at a level they feel is right for them. [para 24]. **These and other similar organisations do a considerable amount of work at grass roots level and it is clear from our discussions with them that they can play a significant role in helping to reduce emissions and adapt to climate change.** [para 27]

**We recognise the value of the work undertaken by these organisations and recommend that the County Council identifies a named senior officer to act as a contact point for Transition and other similar groups. We believe that if the County Council owns any land which might be suitable for local schemes, or for use (for example) as allotments, it should investigate further the possibility of making it available to volunteer groups (who could run their own scheme).** [para 30, CC & Corp]

Somerset had voted unanimously in September 2008 to become the UK's first 'Transition Local Authority'. This meant that they could now start taking an integrated approach to its planning processes, putting peak oil and climate change at the heart of its forward planning. [para 31]

**We recommend that the County Council should, like Somerset, formally commit to supporting and promoting transition and similar green groups.** [para 33 - CC]

**The Transition movement handbook (and other books of similar ilk) should be available in libraries (at the time of writing, only one was available for loan in Kidderminster).** [para 34 A&CS ]

### Earthship

A group of Worcester teenagers have launched a campaign called the Hive project, which aims to promote sustainability and volunteering in the city. A key part of the project will be an "earthship" - a centre built from materials usually sent to landfill and capable of being self-sufficient. [para 35] We believe the project will help raise awareness, particularly among young people, of what can be done to help make buildings energy efficient and tackle climate change. **We therefore recommend that the County Council should offer in kind support, such as printing and promotional material, as well as consider providing officer**

time from relevant directorates to help with, for example, finding sources of funding and completing applications. [para 38 – CC, CS, Corp, Env, PEP]

### **Encouraging sustainable living**

Whilst we recognise the reasons behind the use of the word 'sustainability' we believe the term climate change is more likely to capture the imagination. **We recommend that the Council takes every opportunity to use the term climate change as an alternative to 'sustainability', eg, Sustainability Stewards could become Climate Change Stewards (or Champions).** [para 41 – CC, PEP]

We are impressed by the success of Nottinghamshire's local sustainability magazine called 'Living for Tomorrow'. The aims of the magazine are to:

- raise awareness about sustainability issues and options
- inspire and promote positive behavioural changes in individuals and organisations
- make healthy, sustainable lifestyles both appealing and achievable.

**We recommend that similar aims to those of Nottinghamshire's magazine are applied to a specific section of the County Council's WOW magazine as well as the Council's internal staff magazine.** [para 42 - PEP]

**Messages about promoting a greener lifestyle and reinforcing what staff can do to tackle climate change should be shown on the TV screens throughout County Hall.** [para 45 - PEP]

**We recommend that greater practical help, advice and information should be provided to people on how they can make their homes more energy efficient, especially older houses. The Council should explore the possibility of working with suppliers, housing associations and District Councils, either creating or promoting Energy Efficient Demonstration homes showing available products, renewable technology and advice on how to obtain/install. At the very least, the Council's website should act as a sign post to other organisations existing demonstration homes.** [para 49-PEP]

**We recommend that links should continue to be developed between the Councils Economic Development Department and green technology companies in Worcestershire. The County Council should promote and encourage the development of the green economy.** [Para 54 – PEP]

### **REDUCING WORCESTERSHIRE'S CARBON EMISSIONS**

**We recommend that delegated budgets to schools should be revised in light of forthcoming Carbon Reduction Commitment and any guidance issued in this respect.** [para 71 - CS]

## **Energy Manager**

CIBSE recommends one energy manager per £2m spend on energy. As the Council spends over double that amount, we feel that an additional energy officer is necessary and could help an Energy Manager realise further savings. **An Energy Manager is essential if the Council is to achieve the necessary reduction in CO<sub>2</sub> Emissions. We recommend that a Corporate Energy Manager and Energy Officer be recruited at the earliest opportunity. [para 80 – PEP]**

**We recommend that the job description of a new Energy Manager and Officer should include setting up a similar scheme to that in Nottinghamshire to improve energy efficiency in schools. It should include applications for and administration of Salix funding on behalf of applicable Worcestershire schools. [see paras 82 - 90 - PEP]**

**Other authorities like Nottinghamshire have set up volunteer staff schemes for volunteer energy wardens to help with, for example, recycling and reducing energy use. We fully support all of these actions and recommend that introducing such actions should again be included in the remit of an Energy Manager. [para 93 - PEP]**

...we still feel that more could be done to access other funding/grants to help tackle climate change and further reduce carbon emissions. **Working with the Marches Energy Agency could be one way of achieving this and we recommend that initial negotiations should take place to investigate possible future benefits. [para 105 – PEP]**

**These initial negotiations should explore the feasibility of working with the Districts, County and Marches Energy Agency, possibly to form an Energy Partnership with the aim of accessing European and other funding sources for a variety of projects. Other awareness raising projects using exhibition trailers such as the 'Light Fantastic' mobile trailer were also clearly of benefit and should be explored further. [para 106 - PEP]**

During our Climate Change Scrutiny Conference, a teacher advised that he experienced some difficulty when he wished to fit an energy monitor/meter in the school to help pupils understand the amount of energy being used and encourage energy savings. He also felt that when heat was being lost through badly fitting doors and windows, such issues were often treated with insufficient importance. He felt that some help should be available and it would be useful to have a contact in County Hall who could provide advice on where best to get help to resolve such issues. **We believe an Energy Manager would be best placed to provide energy efficiency advice and recommend that, if appointed, providing enabling advice to schools should form part of his/her role. [para 108 – PEP]**

**We believe that the Council should clearly show its electricity use and fit energy monitors in all its buildings, including schools, to both raise staff and pupil awareness of energy costs and encourage a reduction in energy use wherever possible. The TV display screens in County Hall should be used to frequently display energy usage and cost. [para 109 – PEP]**

## Eco-Schools

**We would like to formally place on record our appreciation of the work and commitment of the Education for Sustainability Team. We are proud of their achievements. [para 110 - PEP]**

**We recommend that that this Council lobby the Department of Children Schools and Families to introduce financial rewards to recognise the importance of teachers work as Eco-School co-ordinators. [para 111 - CS]**

**We should not underestimate the huge contribution Eco-Schools can make to awareness raising, reducing CO<sub>2</sub> emissions and combating the effect of climate change. Given that the Council will be deemed responsible for school's CO<sub>2</sub> emissions when the Carbon Reduction Commitment takes effect in 2010, we feel that all schools should be encouraged to carry out energy audits. We recommend that the Council ensures that a named officer is made available to provide support and advice for pupils' energy audits in schools. [para 114 – PEP, CS]**

**We further recommend that the profile of tackling and adapting to climate change (sustainability) should be raised and prioritised across all of Children's Services. There is considerable opportunity to expand Eco-School award type support in youth clubs and colleges to build on the strengths this County has in this field. [para 115 – CS, PEP]**

## **New School Construction – financial regulations**

**We are advised by our Chief Engineer, that the County Council could make new school buildings more energy-efficient, for instance, BREEAM Excellent rating<sup>16</sup>, but again the capital cost is often higher. In this instance, the capital budget comes from Children's Services but the operational energy budget is delegated to the schools, so if the Council pays more for an energy-efficient school, the school get the financial benefit! . As a result, the capital budgets are limited and we sometimes find ourselves unable to afford low-carbon technology such as wood fuel boilers, solar panels and ground source heat pumps. We recognise that in designing future schemes the County Council needs to be realistic and have regard to affordability factors. Again, given the fact that the forthcoming Carbon Reduction Commitment will make Councils responsible for Schools' CO<sub>2</sub> emissions, we recommend that school construction be as energy-efficient as possible. [para 116 – FS, Corp]**

**We are impressed by Nottinghamshire's achievement of a 25% CO<sub>2</sub> reduction target mostly by an extensive programme of installing wood fuel (also known as Bio mass) boilers. [para 117]**

The most important aspect of wood fuel boilers is that they are considered Carbon Neutral. The amount of carbon emission is offset by the amount

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<sup>16</sup> The BREEAM family of assessment methods and tools are all designed to help construction professionals understand and mitigate the environmental impacts of the developments they design and build.

absorbed by growing the wood fuel (normally 3 years of short rotation coppice) a tremendous help in reducing future emissions.

**We recommend that the Council continues to identify schools (and any other) sites which have sufficient capacity for wood fuel boilers and explores every opportunity to make use of Bio Energy Capital Grant Scheme funding. It should also investigate ways of stimulating demand and growing the market for local wood fuel supplies, which has the added benefit of helping the local economy. [para 122 – Corp, PEP]**

### **Street lighting**

**A pilot by Essex County Council is using Part Night Photocells on about 300 of its lights (out of a total of 100,000) mainly in rural areas. Energy savings of 22% had been achieved in trial areas as well as savings on CO<sub>2</sub> emissions. [para 129]**

Current Council policy is not to turn off lights at night. Whilst this is appropriate in some areas where, say, residents feel safer with lighting throughout the night, we feel there are opportunities to save energy in other areas. Some residents might welcome a reduction in light pollution. Given the urgent need to tackle climate change by reducing CO<sub>2</sub> emissions and energy costs, **we recommend that the street lighting team continue to identify appropriate areas (where it is deemed unlikely to affect public safety) and carry out pilots for switching off street lights during the early hours. [para 130 - Env]**

### Photo electric cells (PECs)

**Photo electric cells (PECs) in each light column turn lights on and off depending on the level of natural light. Street lamps normally come on just before sunset and go off just after sunrise. New PECs are now available which only use 0.25 Watts instead of 3 Watts. Each new PEC costs about £23 has a 12 year guarantee and realises a cost benefit in maintenance. All streetlamps have to be inspected annually and the lamps in light columns have to be replaced every 3 years. Inspection zones are being reorganised to combine fitting the new PECs at the same time. [para 140]**

**If 30,000 fittings are replaced, this could result in annual energy cost savings of £79,500 and annual CO<sub>2</sub> savings of 387,900kg. Lights in Redditch have already been converted leaving 31,000 still to do across the county. As the Council needs to do everything it can to reduce energy consumption, we fully support the Capital bid for this work which has been submitted for 2009/10. [para 141 - Env]**

Some road signs are being deregulated as new reflective materials are so effective, removing the need for lit signs. Officers feel more could be done to increase the number of deregulated signs and are feeding this in through the County Surveyors Society and Lighting Board. Some political backing for this could be helpful. **We recommend that Cabinet lobbies the government to increase the number of deregulated signs on appropriate sites. [para 144 - Env]**

**We conclude that in future, energy costs will inevitably rise further. Challenging targets to reduce emissions need to be met to avoid high future carbon trading costs. It is therefore essential that the council explores every avenue to reduce emissions and save on energy costs.**  
[para 150 - CC]

### **Climate Change Pledge**

**We like the simplicity of Worcestershire's one, two and three star Climate Change Pledge for organisations and businesses and recommend this should be marketed and promoted to target particularly, more businesses.**  
[para 156 PEP]

**We feel it would be useful and therefore recommend that this Council should in future begin to map which and what organisations are doing in the county to combat climate change, identify gaps, and find out how they measure the effectiveness of what they are doing (outcomes).**  
[para 157 - CC]

We envisage a web presence showing a list of all agencies in the county which support carbon reduction, providing advice or opportunities for action on tackling climate change. This would help give an overall picture of what is happening in the county and help with information sharing for existing groups. We feel that partners should contribute to this mapping exercise which should be led by the County Council. [para 158 - CC]

### **PLANNING**

**It is clear that there is a lack of consistency in the Districts regarding the percentage of renewable energy required in new buildings (and whether it applies to homes or commercial properties) in their individual Core Strategies. [see para 173 - PEP]**

It is also clear that some Districts in Worcestershire are not as advanced as others in the UK in Planning for tackling climate change. Possible explanations are that a lot depends on individuals within each Authority and the level of political leadership and support for tackling climate change issues. Another factor is knowledge and awareness of climate change issues and District Councils are often hard pressed to get their traditional planning work completed.  
[paras 174 and 175]

**Whether or not a development is meeting the 10 or 20% target should not be the main focus. What is important is forcing developers to consider renewable energy and get the debate going. There should however be some flexibility in its application. Planning should ensure that new buildings are as energy efficient as possible. The Merton rule is encouraging the building industry to learn how to work with renewables, although perhaps not in the most efficient way. It also encourages the expansion of renewable energy technology businesses – an opportunity for growth in the economy. [para 176 - PEP]**

**Whether District Council Planners have sufficient knowledge and expertise to, for example, apply the principles of the Merton rule and then monitor that a development is in fact using 10 or 20% energy from renewables could be an issue. [para 177 - PEP]**

**District Councils should be satisfied that District Planners have sufficient support and training in new skills required to apply climate change planning policies. [para 178 - PEP]**

**The County Council needs to take a strong leadership role. County Council Planners should exert influence through the preparation of evidence to inform the work of the District Planners. County Council Planners should advise District Councils, for example, that Merton rule principles should be more vigorously applied across the County. [para 179 - PEP]**

**It is clear that whatever plans the Council make to tackle and adapt to climate change, a huge cultural shift is required by individuals and organisations at both a personal and cultural level in order to reduce emissions sufficiently and prepare for a warmer future. In accordance with the wishes of most people in Worcestershire, we recommend that tackling Climate Change must become a Corporate Priority. [para 180 - CC]**

## **PROCUREMENT**

**We believe that the Worcestershire Partnership Climate Change Strategy should place more emphasis on the need for localised food procurement and supplies across the partnership. [para 182 – PEP]**

The aims of the Council's Corporate Procurement Strategy 2008-11 should be updated to reflect the increasing importance of sustainability and tackling and adapting to climate change. **We recommend that the Sustainable Procurement Strategy should specifically refer to promoting and encouraging locally sourced food at every opportunity [183 – Corp, CC]**

Concerns were also expressed in the recent scrutiny report 'Meal Provision for Older and Vulnerable Adults' (December 2008). It recommended a number of sustainable elements for a new community meals contract, which included consideration of meal packaging and disposal, source, heating and transportation methods. [para 186]

**We support the recommendations made in the recent 'Meal Provision' scrutiny report and recommend that the new contract for food provision should actively encourage tenders with reduced packaging and local produce. [para 187 - A&CS ]**

**We recommend that Children's Services further encourage Worcestershire schools to take part in the Food For Life Partnership [www.foodforlife.org.uk](http://www.foodforlife.org.uk) [para 195]**

### *PFI Schools*

We are concerned that PFI schools provide school 'soft' services for the life of the contract. This means, for example in Bromsgrove PFI schools, loss of Council

control over services such as catering and waste.

We are advised that some parents were concerned that Halal meat was being used in one Bromsgrove school and that food was supplied to another from Bristol. We believe that schools should have greater influence over the source of food being consumed by their children. **We recommend that the Council should negotiate further with existing contractors and ensure greater flexibility in future contracts.** [para 197 - Corp]

We are also advised that lights in a PFI school were unnecessarily left on at the end of the school day and are concerned about energy efficiency over the life of PFI buildings. **We recommend that the 25 year management contracts for the forthcoming Building Schools for the Future PFI should contain Performance Indicators (or at least a requirement) to ensure minimum CO<sub>2</sub> emissions and maximum energy efficiency over the life of the contract. Requirements to promote locally sourced food and ensure more recycling of waste should also be included. We further recommend that climate change adaptation measures are incorporated into all new building designs. Designs need to be flexible enough to allow for increasing temperatures and downpours in future. Should oil prices rise prohibitively, plans for alternative energy supplies should also be in place.** [para 198 - Corp]

#### **Reward Scheme for Food Outlet Businesses**

**We recommend that the Council should set up a similar award recognition scheme which immediately identifies quality food outlet businesses (eg restaurants, pubs and cafes) which provide at least 3 locally produced menu items.** [para 202 - PEP]

#### **ICT Procurement**

There is no doubt that an increasing need of IT use is increasing our carbon footprint. We are however aware that the council is taking steps to offset this. For instance, considering the impact on energy use of any new IT projects is now a standard requirement. **We recommend the introduction of low-carbon procurement policies for ICT.** [para 206 – Corp]

#### **Transport**

The Council works hard to improve sustainable travel, by encouraging people to walk, cycle or use public transport (Choose how you move) and introducing school and work based travel plans. [para 207]

The Council is unfortunately not able to afford free travel for all those in full time education but does provide help in some cases. **However, we do support further investigation at the appropriate time into the feasibility of operating a Council run school transport system in some areas.** [para 210 – Env]

The Council has carried out Transport Reviews in each District across the County. We recommend that the Environmental Services Directorate ensures that the Council's Integrated Passenger Transport Strategy supports an improved

network for rural areas with more footpaths on roads to bus stops and safer walking and cycle routes. [para 211 - Env]

## **WASTE**

The County Council has run successful campaigns such as 'Mission Impossible' to help encourage more recycling. **We would like to see more recycling collections in schools and would encourage those schools which do not currently have adequate recycling facilities to seek out opportunities.** [para 213 – CS, PEP]

The Council is not responsible for packaging, plastic bags or community rubbish centres, **however, we encourage people to form or join groups to lobby for even less packaging, campaign to ban plastic bags, and set up voluntary groups to help with recycling if this is appropriate in their local area.** [para 217 – CS, PEP]

**We recommend that the impact of future climate change, (not just flooding, but other extreme weather such as heat waves, which are also likely to become more frequent & severe), on services, assets & communities is considered & planned for across the council.** [para 219]



## APPENDIX 1

### Climate Change Scrutiny Task Group Activity

Details and Notes of meetings can be accessed on line at [www.worcestershire.gov.uk/scrutiny](http://www.worcestershire.gov.uk/scrutiny) (click on Scrutiny Task Groups and then on details of Scrutiny Task Groups and follow the links)

Date	Who	Purpose
5 and 28 May 2008	Lead member and Sustainability Officers	Initial scoping discussions
23 June 2008	General Public	Questionnaire at Three Counties Show to find out the views of the public
15 October 2008	New Lead Member and officers	Re-scoping discussions
15 October 2008	Community Fair - Kidderminster	Climate Change Scrutiny questionnaire
23 October 2008	Community Fair - Redditch	Climate Change Scrutiny questionnaire
29 October 2008	Community Fair - Worcester	Climate Change Scrutiny questionnaire
7 November 2008	Young people	Conference to find out the views of young people
28 November 2008	Scrutiny Task Group	Agree Terms of Reference and Feedback from Conference event
11 December 2008	Discussion with the Education for Sustainable Development Officer (ESDO)	ESDOs role; the Eco-Schools programme; Green Flag awards; and the Learning for Sustainability (LFS) Strategy.
19 December 2008	Discussion with Peter Lines, Design Unit Manager, Property Services and Phil Harris Chief Engineer.  Nick Yarwood, Commercial Manager, Environmental Services and Derek Powell, Senior Lighting Engineer,	Reducing CO <sub>2</sub> emissions in Council Building. Demonstration homes Earthship  Sustainable procurement for Highways Street lighting energy costs – possible savings

8 January 2009	Workshops	Beacon Sharing Event
8 January 2009	Will Tooby Co-founder of The Fold, Bransford and Chairman of the Transition Malvern Hills Group Robert Wilkins, Chairman of One Planet Robin Coates, Chairman of Colwall Greener	Community action to tackle climate change and Peak Oil. Transition Towns
16 January 2009	Phil Keynes, Environmental Services Manager, Paul Eccleshare, Principal Energy, Ray Dunajko Officer, Acting Service Director for Planning Sustainability and Regeneration Councillor Chris Baron, Portfolio Holder for Environment and Sustainability	Best Practice Funding streams – SALIX Energy Partnerships Staff Energy Wardens
28 January 2009	Sean Shannon	City of London (Beacon Authority) Energy Management Masterclass
29 January 2009	Scrutiny Task Group You Tube viewing  Michael Howard, Strategic Procurement Manager, and Joe Stock, Trainee Procurement Officer	Notts Hockerton Housing Project and Notts University creative energy homes project  Sustainable Procurement in Worcestershire
6 February 2009	Dale Bristow, Strategic Planning Team Leader	Planning issues in tackling and adapting to climate change
12 February 2009	Richard Davies, Director, Marches Energy Agency  Dr Rina Jones, Co-ordinator, Local Authority Energy Partnership and Jessie Marcham, Corporate Resources, Derbyshire County Council	Marches Energy Agency Projects and Accessing funding  Energy Partnership
24 Feb 2009	Overview and Scrutiny Steering Group	Emerging findings for consideration

5 March 2009	Cabinet	Considers Worcestershire Partnership's Draft Strategy as part of consultation and the Scrutiny Task Group's emerging findings
1 April 2009	Scrutiny Task Group Discussion with the Cabinet Member for, and Director of, Planning Economy and Performance	Consider draft report, findings and possible recommendations
28 April 2009	Consideration by Overview and Scrutiny Steering Committee	
30 April 2009	Publish Scrutiny Report	
7 May 2009	Cabinet	Cabinet Response to Scrutiny Report



## APPENDIX 2

### Climate Change Scrutiny Task Group

#### List of key documents consulted

##### Worcestershire

- Worcestershire County Council's Beacon submission on climate change
- Worcestershire County Council's Sustainability Policy & 2006/7 Action Plan
- Worcestershire County Council's, Learning for Sustainability Strategy
- Results of the Citizens' Panel's questions on climate change (June 07 & Dec 07)
- The Local Area Agreement sections and targets (PIs) relating to Climate Change issues
  - NI 186- Carbon Emissions per head of population and
  - NI 188 - Climate change adaptations (eg heat wave plans for vulnerable service users, Sustainable Drainage Systems (SUDS))
- The Current Worcestershire Partnership Climate Change Strategy and details of the 25 organisations in the Worcestershire Partnership that have signed up to the pledge
- Worcestershire Partnership's State of the Environment Report
- Worcestershire County Council's Procurement Code
- Further public feedback sought via survey at the Council's Stand at the Three Counties Show and at Community Fairs in summer 2008 (Appendix 3)
- District's Core Strategies
- Technical research papers to inform the preparation of the RSS, Core Strategies and the Sustainable Community Strategies. These papers are prepared by the County Council's Planning Officers and include:
  - Planning for Climate Change in Worcestershire;
  - Planning for Renewable Energy in Worcestershire; and
  - Planning for Water in Worcestershire (with the Environment Agency and Severn Trent Water).
- Joint Sustainability Appraisal Framework for Worcestershire

##### Other Authorities

- Nottingham Declaration on Climate Change
- Papers from the City of London's (Beacon Authority) Energy Management Masterclass (28 January 2009)
- Selection of Nottinghamshire's Living for Tomorrow Magazines

##### Other

- Centre for Public Scrutiny CfPS Library Monitor 6<sup>th</sup> Report – Climate Change
- Marches Energy Agency (MEA) – presentation slides and information

- Low Carbon Leadership – A work book for decision makers (produced by MEA in partnership with Energy Saving Trust)
- Local Government Associations March 2008 - opinion poll results on climate change

# Climate Change Scrutiny Survey Summer 2008

Analysis of Results  
April 2009

For more information contact:

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## ANALYSIS

There were a total of 472 responses to the Climate Change Scrutiny Survey.

**Q1: For the following two questions, please state to what extent you agree or disagree.**

- In your opinion, should tackling climate change be one of the top five priorities for your council?
- Do you think your council could do more to tackle climate change, within the existing level of resources?

**Table 1**

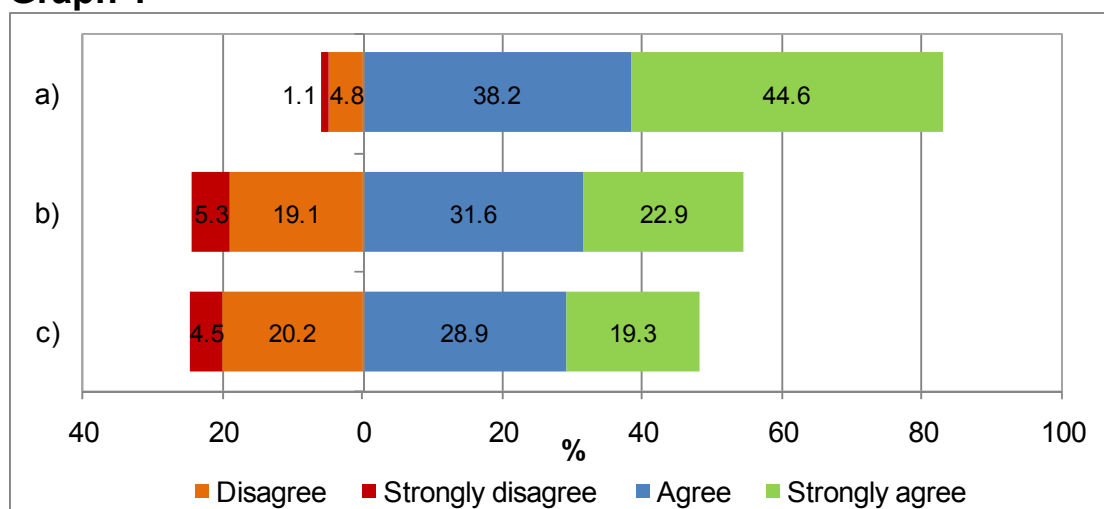
		Strongly agree	Agree	Neither	Disagree	Strongly disagree
Top five priorities for your council	Number	256	173	22	7	3
	%	55.5	37.5	4.8	1.5	0.7
More to tackle climate change, within the existing level of resources	Number	189	208	52	9	1
	%	41.1	45.3	11.3	2.0	0.2

The majority of respondents agree that tackling climate change should be one of the top five priorities for their council (93.0%), but also think that their council could do more to tackle climate change within the existing level of resources (86.4%).

**Q2: To what extent do you agree or disagree that councils should...**

- Introduce financial incentives to encourage people to reduce greenhouse gases?
- Introduce penalties to encourage people to reduce greenhouse gas emissions?
- Force their residents to take action on climate change?

**Graph 1**



A higher proportion of respondents agree rather than disagree with each option related to greenhouse gas emissions and climate change. They most strongly agree with introducing financial incentives to encourage people to reduce greenhouse gases, 82.8% either agree or strongly agree and just 5.9% disagree or strongly disagree.

Around half of respondents agree or strongly agree with introducing penalties to encourage people to reduce greenhouse gas emissions or force their residents to take action on climate change. Conversely, only around a quarter of respondents disagree or strongly disagree with these options.

**Q3: Did you know that energy use in houses makes up about 23% of all greenhouse gas emissions, whilst waste only accounts for around 3%?**

36.8% of respondents said they knew this fact compared to 63.2% who didn't.

**Q4: Adequately insulating your home could make a significant contribution to reducing CO<sub>2</sub> emissions. If you do not have wall or loft insulation, which of the 3 factors from the table below would encourage you to do so?**

Not all respondents answered this question correctly and therefore the following table gives the percentage of respondents who selected a particular factor and also the percentage of respondents who selected a particular rank, 1<sup>st</sup>, 2<sup>nd</sup> or 3<sup>rd</sup>.

**Table 2**

<b>Factor</b>	<b>Overall</b>	<b>1<sup>st</sup></b>	<b>2<sup>nd</sup></b>	<b>3<sup>rd</sup></b>
If it saved money on fuel bills	68.6	43.5	16.0	9.1
If it improved home comfort	36.7	10.7	18.2	17.9
If I received a grant towards cost	50.8	18.2	25.4	17.9
If I knew a reliable contractor	23.9	5.9	14.0	11.3
If I were given free advice on insulation	23.9	6.3	10.3	15.3
Knowing I'm doing my bit for the planet	46.8	15.4	16.2	28.5
		<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Just over two thirds of respondents ranked saving money on fuel bills as one of their top 3 factors in encouraging them to adequately insulate their home, followed by half who would if they received a grant towards the cost.

Out of all the options ranked 1<sup>st</sup>, most respondents choose saving money on fuel bills (43.5%) followed by receiving a grant towards cost (18.2%) and doing their bit for the planet (15.4%).

**Q5: What do you think the council should do to help combat climate change?**

The most popular comment themes made by respondents were:

1. Improved/better recycling (including schools and businesses) – recycle all plastics, cardboard, glass etc

2. Improve cycle ways, footpaths, public transport (especially rural areas) to encourage people out of their cars
3. Provide and publicise climate change/green incentives
4. Grants for renewable energy technologies, wind turbines, solar panels etc
5. Increase awareness and educate young people
6. Make sure all lights are turned off when not needed, especially public buildings – encourage by example.

Other comments included:

- ensure all new homes are built to the highest eco-standards
- most people seem aware but don't see it as their responsibility - we need to convince people that we all need to take action
- provide more information and advice on climate change.

## APPENDIX 4

### **CLIMATE CHANGE SCRUTINY CONFERENCE, FRIDAY 7 NOVEMBER 2008**

We asked young people for their suggestions on what else the County Council could or should be doing to help limit the effects of climate change. **The top three priority issues were Energy efficiency (22 suggestions); Transport (12 suggestions); and Waste (11 suggestions).**

#### **Young peoples suggestions for energy efficiency:**

- Build schools in future which are adapted for climate change including low power usage and sustainable drainage – this will help encourage children and future generations to use sustainable buildings
- Modify all public buildings to make them energy efficient. Provide funding for insulation and energy efficient generators (non fossil fuel) in existing schools
- Use renewable energy sources such as solar panels, wind and the river Severn.
- Encourage schools and businesses through grant funding
- Encourage the use of energy saving devices by all
- Use Green energy tariff
- The Council should use energy efficient light bulbs
- The Council should provide schools with energy efficient light bulbs with sensors and solar panels (Council could get discount by bulk buying)
- Fit light sensors on alleyways
- More encouragement to cut down heating and save energy.

#### **Young peoples suggestions for Transport:**

- Free public transport for those in full time education
- Safer walking and cycle routes
- Subsidise public transport
- Better transport network for rural areas – more frequent and efficient
- More footpaths on rural roads to bus stops
- Night buses at specified advertised time, safer night shelters
- New cycle lane on Studley Road by Woodfield Middle School (please).

#### **Young peoples suggestions for Waste:**

- Provide recycling bins in high streets
- Encourage recycling more
- More recycling collections in schools x2
- Minimise use of landfill by raising awareness of what happens to the rubbish and what effect it has on the environment
- Collect and use methane release from landfill
- Reduce packaging on products
- Ban plastic bags in Worcestershire
- Give bags for life to all residents
- Set up community rubbish centres manned by volunteers
- No charge for green waste bins.

**Other suggestions:**

- All schools should be Eco-Schools
- Grow own food
- Improve drainage systems and flood defences (in Tenbury)
- Save water eg Hippo bricks in cisterns
- More sustainable forestry
- People don't know enough about what the council does – make it known and lead by example.

**Electronic Quiz - Results**

The results of the quiz using electronic voting pads can be found on our scrutiny web pages (link below). On the web page, click on meeting dates, agendas... etc and scroll down to Friday 7 November and click on feedback - quiz

[www.worcestershire.gov.uk/climatechangescrutiny](http://www.worcestershire.gov.uk/climatechangescrutiny)

### **DEFINITION OF LEVELS 1, 2, 3 and 4 on PLANNING TO ADAPT TO CLIMATE CHANGE for LAA INDICATOR NI 188 –**

#### **Rationale**

To ensure local authority preparedness to manage risks to service delivery, the public, local communities, local infrastructure, businesses and the natural environment from a changing climate, and to make the most of new opportunities. The indicator measures progress on assessing and managing climate risks and opportunities, and incorporating appropriate action into local authority and partners' strategic planning.

The impacts might include increases in flooding, temperature, drought and extreme weather events. These could create risks and opportunities such as: impacts to transport infrastructure from melting roads or buckling rails, increases in tourism, increased damage to buildings from storms, impacts on local ecosystems and biodiversity, scope to grow new crops, changing patterns of disease, impacts on planning and the local economy and public health.

#### **Baseline**

The Authority has begun the process of assessing the potential threats and opportunities across its estate and services (for example, flood and coastal resilience plans, emergency planning, community risk registers/strategies etc) and has identified and agreed the next steps to build on that assessment in a systematic and Co-ordinated way.

Examples of evidence:

- The Authority has identified a lead official to identify and provide advice to service/department heads on potential impacts of future climate change on its functions
- The Authority has undertaken an audit of existing relevant risk registers and action plans in place (eg community risk register)
- The Authority has established a process for actions it needs to take to meet higher levels

#### **Level 1: Public commitment and prioritised risk-based assessment:**

The Authority has made a public commitment to identify and manage climate related risk. It has undertaken a local risk-based assessment of significant vulnerabilities and opportunities to weather and climate, both now and in the future. It can demonstrate a sound understanding of those not yet addressed in existing strategies and actions (e.g. in land use planning documents, service delivery plans, flood and coastal resilience plans, emergency planning, community risk registers/strategies etc ). It has communicated these potential vulnerabilities and opportunities to department/service heads and other local partners and has set out the next steps in addressing them.

Examples of evidence:

- The authority and partners have made a public commitment to manage climate risks e.g. signed up to the Nottingham Declaration or an equivalent
- A Local Climate Impacts Profile or equivalent process is ongoing
- Initial assessment produced using the UKCIP scenarios
- Department/service heads facing significant vulnerabilities and opportunities have an understanding of the issues, with evidence of actions already in place to address these
- Evidence of working in partnership and pooling of resources and expertise across sectors, areas and council tiers where applicable.

### **Level 2: Comprehensive risk-based assessment and prioritised action in some areas:**

The Authority has undertaken a comprehensive risk based assessment of vulnerabilities to weather and climate, both now and in the future, and has identified priority risks for its services. It has identified the most effective adaptive responses and has started incorporating these in council strategies, plans, partnerships and operations (such as planning, flood management, economic development, social care, services for children, transport etc). It has begun implementing appropriate adaptive responses in some priority areas. In its role as a community leader the council has started working with its LSP encouraging identification of major weather and climate vulnerabilities and opportunities that affect the delivery of the LSP's objectives.

Examples of evidence:

- Comprehensive risk assessment produced (for example using the UKCIP method)
- Nottingham Declaration accreditation
- Council Members and department and service heads have a detailed understanding of weather and climate risk in all vulnerable areas identified in risk assessment and actions taken in priority areas.
- Documents like Local Development Frameworks include climate change adaptation
- Local adaptation partnership established
- LSP partners are aware of actions being taken by the council, feel engaged in the process and confirm they have started to identify weather and climate risk that affect the delivery of their own objectives.

### **Level 3: Comprehensive action plan and prioritised action in all priority areas:**

The Authority has embedded climate impacts and risks across council decision making. It has developed a comprehensive adaptation action plan to deliver the necessary steps to achieve the existing objectives set out in council strategies, plans, investment decisions and partnership arrangements in light of projected climate change and is implementing appropriate adaptive responses in all priority areas. This includes leadership and support for LSPs in taking a risk based approach to managing major weather and climate vulnerabilities/opportunities across the wider local authority area.

Examples of evidence:

- Action plan developed and published
- Nottingham Declaration accreditation at a higher level

- Detailed understanding of risk and action taken to embed relevant adaptation response in council strategies, plans, partnerships and operations by all department/service heads where weather and climate risks have been identified.
- Initial cost analysis undertaken and potential sources of funding identified for major vulnerabilities
- LSPs feel fully engaged and action plan includes commitment from authority and LSP
- Pooling of skills, knowledge and resource across LSP
- Consulted with authorities responsible for climate change management and others who can provide advice on good practice e.g. Environment Agency, Natural England, Defra.

**Level 4: Implementation, monitoring and continuous review:**

The Authority and LSP are implementing the comprehensive adaptation action plan across the local authority area, and there is a robust process for regular and continual monitoring and review to ensure progress with each measure and updating of objectives. The Authority and LSP are taking appropriate adaptive responses.

Examples of evidence:

- Clear and robust continuous monitoring and review system in place
- Outputs from the review and monitoring process are ploughed back into the action plan and other relevant council and LSP strategies.



# Worcestershire Climate Change Pledge 2008/09

We pledge to support the objectives of the Worcestershire Climate Change Strategy which aims to:

- Reduce total greenhouse gas emissions in Worcestershire.
- Raise awareness of Climate Change issues.
- Assist adaptation to the impacts of Climate Change in Worcestershire.

In order to help achieve the above aims we will undertake the following actions in 2008/09 and report progress annually to the Worcestershire Partnership. (Please tick the relevant box)

## 1 STAR ACTIONS ★

- Raise awareness of climate change issues amongst our staff and in our activities involving the general public, e.g. through our newsletters, website and at events.
- Ensure that our organisation monitors our energy use, e.g. through regular accurate meter readings.
- Obtain advice and/or financial assistance to improve energy efficiency and save money at work.

## 2 STAR ACTIONS ★★

- Reduce our organisation's energy use e.g. through switching off appliances when not in use, better insulation, using energy efficient appliances and plant etc.
- Insulate our own homes properly and encourage our staff to do so too.
- Minimise our waste production and recycle as much as possible.
- Set up systems to monitor, report on our greenhouse gas emissions and set a reduction target.

## 3 STAR ACTIONS ★★★

- Carry out an assessment of likely impacts of climate change on our organisation and put in place plans to address them.
- Develop and implement a staff travel plan.
- Operate a low carbon/sustainable purchasing policy e.g. using local suppliers to reduce transport costs and emissions, buying energy efficient products etc.
- Use renewable energy, through procurement e.g. green electricity tariff and/or generation e.g. solar thermal, wood fuel, ground source heat etc.

We will also carry out other actions as appropriate in order to help meet the strategy's targets.

Name of Organisation \_\_\_\_\_

Signed \_\_\_\_\_ (Head of Organisation) Date \_\_\_\_\_







This document can be made available in other languages (including British Sign Language) and alternative formats (large print, audio tape, computer disk and Braille) on request from the Scrutiny Team on telephone number 01905 766916 or by emailing [scrutiny@worcestershire.gov.uk](mailto:scrutiny@worcestershire.gov.uk)