Overview and Scrutiny Report

Climate Change Review

A Review by the Planning, Transportation and Sustainability Panel

Panel Members

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1. Introduction

1.1 Objectives

This review set out to:

- Examine how well Council policy is contributing to the aims of the Climate Change initiative and the Nottingham Declaration targets
- Look into ways that the Council can reduce carbon emissions by managing energy usage in its own buildings and those of new developments
- Look beyond 2009 and make recommendations as to the carbon emissions reduction targets that the council should be aiming at in the longer term.

The Panel chose not to look at Climate Change initiatives in relation to the following areas:

- Waste,
- Food; and
- Transport

The issues of transport and waste have been addressed in separate Overview & Scrutiny reviews and food is a large enough area to warrant its own study at some point in the future. As such, these areas are excluded from the scope of this review.

1.2 Approach

To achieve these objectives, a range of activities and information gathering exercises were undertaken:

Workshop

In July the Centre for Sustainable Energy (CSE) hosted a half day workshop for the panel and a number of other Councillors and officers.

The CSE is a national charitable organisation based in Bristol which was established back in 1979. Since then they have been providing advice, education and practical projects to individuals and organisations from public, private and voluntary sectors on a wide range of initiatives.

CSE's Chief Executive Simon Roberts, Mark Ledger (Head of Partnerships and Policy) and Helen Mounsey (Senior Project Worker) led the workshop which included a mix of presentations and group discussions. The purpose was to get the Panel and other attendees thinking about the role of Local Authorities in

tackling the climate change agenda. The sessions were designed to explore the ways that B&NES can promote and support the development of sustainable energy in the district.

Learning from other Local Authorities

Questionnaires were sent to benchmark local authorities to find out what approach they were taking to addressing climate change. The questionnaire sought to build up a picture about the activities they are undertaking and what targets they are setting themselves to reduce carbon emissions and manage energy use more efficiently.

Questionnaires were sent to eighteen local authorities – those in our Audit Commission Family Group and the six local authorities that have been awarded Beacon Status for Sustainable Energy. We had responses back from eight authorities – a 44% response rate – which provided a useful snapshot of a range of activities that are being pursued across the country.

Bath & North East Somerset

A further questionnaire was sent to Heads of Service at B&NES seeking their views on how they thought their area of responsibility might impact on this agenda. This asked their views on where they thought operations might be having a potentially large effect, what policies might be contributing to lowering emissions and finally sought their ideas on where they thought there were more opportunities for the Council to do more.

Contributor Session

In July the Panel held a contributor session and heard from a number of local organisations and businesses about their experience of addressing this issue. These were:

The Panel invited these contributors to talk to the Panel about what more they believe the Council can do to reduce its own carbon emissions and encourage others to do the same.

Panel Visit

In September the Panel visited Woking Borough Council. During the course of early research for this review, it became clear that Woking BC had gone further than most authorities in successfully delivering a range of projects and initiatives aimed at reducing their consumption of energy.

In 2005 Woking was one of six Local Authorities awarded Beacon Status for Sustainable Energy, the IDEA scheme which recognises excellence in Local

Government. Through this scheme, Woking has been able to share best practice and play a 'mentoring' role to other Authorities who have approached them for advice and support.

Several of the Local Authorities that responded to the questionnaire also flagged up the leading role that Woking was playing in addressing this agenda and advised that the Panel pay special consideration to what they had achieved.

The Panel received a presentation from Woking's Climate Change officers which detailed the work that had been undertaken over the last 15 years. This was followed by a tour round some of the renewable and sustainable energy installations located throughout the town.

1.3 Context

Climate change is now recognised as one of the greatest threats to human societies and life on earth. Emissions of CO2, caused by the burning of fossil fuels have been proven to be linked to the rise in global temperature, leading to significant changes in weather patterns which is already beginning to impact on our lives.

Over the last one hundred years the global temperatures has increased on average by 0.7 degrees with the greatest increases occurring in the second half of the last century. The 1990s were the warmest years in recorded history and here in the UK we have seen two of the hottest summers on record occur in the last decade. Although this rise in temperature may appear small, this has been accompanied by an increase in extreme weather patterns in some parts of the world and is likely to have further impacts on climate, e.g. Northern Europe is predicted to become wetter and the Mediterranean drier.

Here in the UK, recent years have witnessed an increase in the incidences of extreme weather such as record high temperatures and severe flooding. Scientists estimate that this is a trend that is set to continue in the UK, with forecasts showing that average annual temperatures could be set to rise by a further 5 degrees over the next one hundred years. The likely consequences of this are wetter winters, drier summers and rising sea-levels and will be keenly felt in the South and South-East of the country.

Context for Local Authority Action

There are currently no mandatory targets that Local Authorities have to meet on reducing emissions of climate change gases. However, this agenda is being driven by an international and national policy framework that is placing an increased emphasis on local authorities and the role they will have to play in order for these targets to be met. Key amongst these drivers are:

International

Kyoto Protocol – committing the UK to reduce emissions of greenhouse gases by 12.5% from 1990 level by 2008/12.

National

Energy White Paper 2003 has gone beyond the Kyoto commitment and adopted a longer term goal to put the UK on a path to reduce carbon dioxide emissions by some 60% by 2050, with real progress by 2020.

Regional

The Regional Spatial Strategy for the South West mirrors the national target and states that Local Authorities should be including proposals within all their plans, strategies and programmes to contribute to stabilising and reducing the region's ecological footprint.

Local

There is also recognition that climate change initiatives will be a key line of enquiry in the next round of CPA assessment.

2. Recommendations

As a result of their investigations throughout the course of the review, the Panel have drawn together a set of nineteen recommendations. These have been developed on the basis of the evidence detailed in the Findings section of this report, are arranged thematically in this section and cross-referenced to their location in the body of the main report.

Corporate Commitment: The Panel recommends:

R.1. That a high level member/officer advisory group is established to take forward the recommendations that are accepted from this review. The group should:

- Comprise officers at Director or Assistant Director level
- Meet quarterly and report back to O & S on 6-monthly basis, updating on the progress that is being made taking forward the review's recommendations (3.2.4)

R.2. That Officer Champions are identified in each service area to endorse, support and raise the profile of measures aimed at delivering emissions reductions. Champions should:

- receive the full support of senior staff and have delegated authority to carry out their role
- receive appropriate training and support
- report to the high-level member/officer advisory group (3.2.4)

R.3. To ensure that there is a legacy beyond the life of the Invest to Save Project (Our Big Energy Challenge), that energy efficiency best practice is embedded across the Council and adopted by all members of staff. Provision should be made within the Council's induction training to ensure that this best practice is adopted by new members of staff. (3.1.3)

R.4. That provision is made within the Council's Competency Framework and Performance Management Framework to take account of B&NES commitment to deliver action on tackling climate change. (3.1.3)

Corporate Targets: The Panel recommends:

R.5. That the Council support the target that is endorsed by the Nottingham Declaration to achieve a 60% reduction of carbon dioxide emissions by 2050 (3.7.3)

R.6. That the Council develops appropriate performance management indicators to monitor the implementation of its strategy to reduce carbon emissions. (3.7.3)

Planning: The Panel recommends:

R.7. That a target is embedded within the Local Development Framework requiring that at least 15% of energy in new developments should come from a renewable source. (3.2.5)

R.8. That a strong sustainable construction policy is embedded in the Local Development Framework. (3.5.6)

R.9. That all applicants and developers should be required to submit information detailing the level of renewable energy and energy efficiency measures in their applications. (3.5.6)

R.10. That Sustainable Construction Guidance is developed to support the Council's policy that was agreed in December 2004. (3.5.6)

R.11. That the Executive Member encourages closer working between Sustainability & Planning teams and members of Development Control Committees on training and development opportunities. (3.2.5)

R.12. That there is a review of conservation area and listed building planning policy to increase the uptake and installation of energy saving installations. (3.2.5)

R.13. That in the longer term, the Council creates the post of an Environmental Sustainability Officer to sit within Planning Services. (3.2.5)

Procurement: The Panel recommends:

R.14. That the Executive Member gives full support to the Procurement Steering Group and recognises that they have a role to play in helping to deliver the Council's climate change agenda. (3.2.3)

Energy Services: The Panel recommends:

R.15. ***ESCO*** - That work is undertaken to investigate the possibility of setting up an Energy Services Company (ESCO) and determine what they would be able to deliver so that the Council can meet it climate change objectives. (3.3.2)

R.16. ***Advice & Education*** - That work is progressed to establish a one-stop energy efficiency advice shop within the B&NES area for local residents. (3.6)

R.17. ***Renewables*** - That where possible, opportunities for applying renewable technologies are always appraised to help deliver the Council's services – e.g. stand-alone lighting columns in rural areas. (3.5)

R.18. That Council owned buildings across the district are identified for the installation of energy efficiency and renewable energy technologies. (3.5)

Finance: The Panel recommends:

R.19. That the officer/member advisory group give advice on the appropriate financial and service planning that is required in taking forward the recommendations that are accepted by the Executive. (3.5)

R.20. That innovative finance options are explored to ring-fence the savings achieved through energy efficiency measures. These savings should be reinvested in further energy-efficiency projects with an element of 'reward' money being allocated back to service areas that have contributed to delivering the savings. (3.5)

3. Findings

3.1 Current Council Policies

The review set out to identify which council policies have a potentially large effect on the local environment and carbon emissions and whether the effect of these contributes to increasing or decreasing emissions within the authority.

In its role as a substantial property owner, employer and service delivery provider, the Council's policies and operations cover a wide range of office-based and customer facing operations. The Council does not currently have a Corporate Improvement Priority that gives precedence to Climate Change and therefore there is no one single driver that cuts across all service areas, requiring them to address this agenda.

During 2006, the Corporate Sustainability Manager has been rewriting the Council's position statement on sustainability and developing a Strategic Framework. This Framework, once adopted, is designed to provide a simple description of the key actions that the Council needs to be taking over time in its efforts to reduce energy consumption and identifies actions for change in service areas across the Council.

3.1.1 Buildings

The Council has offices located on seventeen sites across the Authority and a number of measures have already been taken to install more energy efficient technologies in buildings across the Council. Examples include:

- Passive ventilation specified in recent designs where appropriate
- Use of natural light maximised (eg use of sun tubes)
- Use of timber frame buildings and western red cedar cladding
- Low energy high efficiency light fittings specified and lighting control systems installed (for example, lights automatically go out if no movement detected, at end of day and if natural light levels are good)
- Increased insulation levels
- High efficiency boilers and other mechanical plant specified.
- Solar powered domestic hot water to a recent school project
- Spa Water heat exchangers (used to assist heating system in the Pump Rooms)

However, up until this year there has been no central system for energy billing and consequently it has not been possible to get a full or detailed picture of how much energy is being used across these council-owned buildings. Without this information it is impossible to effectively determine which buildings are underperforming in terms of energy efficiency and what scope there is for tackling inefficiencies and waste.

In 2006, B&NES created a new post of Energy Services Manager within the Property and Legal Services Directorate. This post was created in recognition of the fact that a dedicated resource was needed to carry out an audit of the amount of energy that is being used. With this information it will be possible to accurately record how much energy (gas, electricity and water) is being used in each building twenty four hours a day, which buildings are performing badly and highlight priorities for action.

To achieve this, a range of software options were explored and the decision was taken to purchase and implement a system that Bristol City Council has been using for the last ten years. As well as demonstrating a good track record in the reductions that have been achieved in Bristol, having the same kit will enable close work between the two authorities and will provide opportunities for benchmarking in the future.

Once the software package is up and running, it will take in the region of three months to collect enough good data to create a baseline and to get a detailed picture of how each building is performing.

Analysis of the data will make it possible to develop action plans for buildings across the authority. These action plans will contain short and long-term measures for tackling inefficiencies and, where appropriate, will set targets for each service in the Council to reduce their energy consumption.

Alongside this work, the Council is also working with the Carbon Trust to carry out further energy audits in its buildings. These have been taking place throughout the autumn and should produce a number of quick-win options that can quickly and easily be implemented.

The Panel heard that this work would not be extending to Secondary, Primary, Nursery and Special Schools in the Authority. Schools currently have their own budgets and arrangements and will not be included in the new centralised billing system. While work is being done to encourage energy efficiency measures in schools, the opportunity for influencing their energy procurement and usage is limited at this time.

3.1.2 Procurement

With an annual budget of over £40m, local government expenditure on goods, works and services clearly has significant economic, social and environmental impacts. Alongside other public sector spending, it also has the power to transform markets and encourage the private sector to join forces in pursuing sustainable purchasing policies.

In Bath and North East Somerset alone, the Council spends approximately £160m each year buying goods and services and a further £33m on construction works and other capital projects. With this level of purchasing power, the Council is clearly in a strong position to drive demand locally for more energy efficient and sustainable products as well as to reduce the environmental impact of its own operations.

An example of what is being done in this area can be seen in the Council's approach to street lighting. In B&NES there in the region of 16,000 street lights that the Council has responsibility for. Currently 100% of these are powered by 'green' energy – the amount of Kwh B&NES use annually is in the order of 6,353,344 and on that basis 2731.94 tonnes/Kwh per annum of CO2 are being saved[1i].

3.1.3 Invest to Save (Our Big Energy Challenge)

Earlier in 2005, the Council successfully bid for central government funding worth £770,000 from the joint HM Treasury/Cabinet Office Invest to Save (ISB) scheme. The ISB is an initiative which aims to create sustainable improvements in the capacity to deliver public services in a more joined up manner.

This ground-breaking scheme in B&NES is an energy efficiency scheme which has been developed by the Centre for Sustainable Energy and will be taken forward by the Council and its partners in the Local Strategic Partnership (LSP). The aim of the project will be to cut energy efficiency by 10% over the next three years. It has been estimated that this could also lead to financial savings of nearly £5m between now and 2012.

The project is two pronged. On the one-hand more than 20 high energy use buildings will have the latest in high-tech monitoring and metering equipment installed in the first two years to identify where energy management can be improved. This will show where savings are being made and where more work needs to be done.

In addition, the project will provide energy efficiency awareness training for staff across the LSP, with four levels of training for staff at different levels ('Energy in the Office, Energy Champions, Frontline Staff Awareness, and Technical Energy Management) A range of back up materials (posters, flyers etc) will be produced to further publicise this message.

Further objectives of the project include

- The establishment of permanent senior-level commitments to providing resources for energy management in each member organisation

[1] Figures supplied by Highway Electrical and ITS Team Leader at B&NES

- To prove that substantial investments in energy efficiency measures will result in savings that will payback the investment over an attractively short timescale
- To prove that it is possible to bring about organisational culture change with regards to energy efficient behaviour
- To provide at least 4000 staff with basic information about energy efficiency, climate change and behavioural adaptations that can also be applied in their own homes.
- To provide at least 1000 front-line staff with the information and back up they need to identify and address symptoms of fuel poverty in their client bases.

Although this is a time-limited three year project, this will result in a valuable legacy which will see energy efficiency measures and behavioural change embedded across the district for many years to come.

The Panel recommends:

R.3. To ensure that there is a legacy beyond the life of the Invest to Save Project (Our Big Energy Challenge), that energy efficiency best practice is embedded across the Council and adopted by all members of staff. Provision should be made within the Council's induction training to ensure that this best practice is adopted by new members of staff.

R.4. That provision is made within the Council's Competency Framework and Performance Management Framework to take account of B&NES commitment to deliver action on tackling climate change.

3.1.4 Work Practices/Housekeeping

Bath and North East Somerset is one of the largest employers in the district, employing over 6,400 people in a variety of office-based and front-line jobs. As such the Council has the potential make a huge impact by looking at how it might run its own varied operations in a more efficient way. The council also has a duty to take the lead on this as an example to the rest of the community. To have any credibility about selling this message to residents and partners, the Council needs to be seen to be taking the lead on this.

Through the Invest to Save Project that is being rolled out many of the Council's staff will be getting access to advice and information about what energy efficient practices they can adopt and what issues they need to consider in order to deliver sustainable goods and services.

As part of the Council's wider Change Programme, a culture change project called WorkSMART is being undertaken. This project is looking at looking how, when and where office space is used and how staff work. The project is looking at different aspects of work practices including the best use of office space, hot-desking, home working, investing in wireless technology and electronic record management.

While not driven by any specific environmental objectives, the net effect of this work will be improvements and efficiencies in the way that the Council works as an organisation, with many of the outcomes contributing directly to more energy efficient work practices. By reducing the need to travel and making more effective use of office space & equipment this will contribute to a reduction in the use of energy, space and materials.

3.1.5 Planning Authority

In its role as a Planning Authority, B&NES is able to exert a large degree of influence on the way in which new developments are being designed. Planning permission is generally needed to build something or change the use of land. Through the current planning process and in the Supplementary Guidance Documents that are issued, the Council are able to encourage and determine how much consideration is given to the sustainability of a project or development from the earliest stages. It is up to the Council to determine how rigorously it enforces the current planning policy in this respect.

3.2 Adapting Council Policies to meet the Challenge

The review set out to identify ways in which council policies can be altered to come into alignment with the Climate Change agenda and the targets that have been signed up to in the Nottingham declaration.

3.2.1 Buildings

Over the next 20 years there is going to be a substantial building programme underway across the Authority with the Regional Spatial Strategy (RSS) identifying that up to 15,500 new domestic properties will have to be built across the Authority to meet expected levels of growth in the area. In the City of Bath there will be significant amounts of new buildings and developments – 3000 residential properties in Bath Western Riverside alone. There is an expectation within the RSS that 'all new major development will need to be carbon neutral'.

Through the planning regime, the Council will be well-placed to be able to influence how sustainable these new developments are and can strive to go beyond what is the statutory minimum requirement for energy efficiency.

3.2.2 Work Practices/Housekeeping

A number of local authorities have endeavoured to reduce the impact of their own operations, particular in respect of office-based operations, by issuing guidance and offering advice to their staff about simple actions they can take to reduce their consumption of energy.

Simple quick wins such as turning off monitors and other IT equipment overnight, turning off light switches, using water more efficiently can achieve significant cost as well as carbon savings. In the London Borough of Dagenham & Dagenham a Green Office Guide has been circulated staff outlining a number of simple measures that everyone can help to implement. The introduction of the Guidance has been supported by the appointment of 'champions' in one service area as a trial. These champions have been charged with raising the profile of the guidance and encouraging colleagues in their teams to implement the measures contained within it.

During a recent 'Turn it Off' campaign where officers across a number of buildings were encouraged to turn off their monitors overnight, spot checks of the equipment showed that there were significantly more monitors being switched off on those floors where Champions had been appointed. Equipment like monitors use up to 70% of normal power consumption when left on standby overnight, so there are clearly significant savings that can be achieved by encouraging good practice like this in the workplace.

3.2.3 Procurement

Bath & North East Somerset has recently published a Sustainable Procurement Code which will form an annex to the Council's wider Procurement Strategy. This document offers guidance to officers across all services about the issues they should consider when making choices about the goods and services that they buy or contract. This guidance specifies a number of rules that should be adhered to including choosing 'green' electricity as and where possible and only purchasing the most energy and water efficient appliances.

A report published by IDEA in 2003 recognised the importance of and the role that such guidance can offer, but highlighted that, on its own a code will not deliver change. This report advised that to ensure such messages in guidance are disseminated effectively, guidance should be "endorsed at member and senior management level; and [that] mechanisms are put in place to ensure it is mainstreamed as part of the corporate procurement process".

The report set out a number of possible strategies for embedding guidance within an authority:

- The policy should be signed (and dated) by the Executive Member responsible for procurement and the Chief Executive
- It should be regularly revisited and updated in light of outcomes and experiences.
- The policy should be widely disseminated
- People involved in procurement should have an in-depth introduction to the policy and what it means in practice (possibly through a workshop or seminar)
- Supporting information should be available, for example guidance documents (possibly on-line), further sources of information, etc.
- Progress should be monitored (for example, how are people using the guidance, if at all; can it be improved etc)

The Panel recommends:

> **R.13** That the Executive Member gives full support to the Procurement Steering Group and recognises that they have a role to play in helping to deliver the Council's climate change agenda.

Role of Champions & Corporate Buy-In

The need for high-level corporate support and endorsement of any measures has become clear during the course of this review. In their discussion groups at the workshop, the Panel highlighted the importance of strong political leadership and senior management support to drive through and embed change throughout the Council. Driving this through needs leadership and direction from above and needs to be embedded in everything the Council does – taking a piecemeal approach or bolting-sustainability at the end of policy development, will not be enough to achieve any significant progress on this issue.

> *"The active participation of the Council's leaders in promoting sustainability has been one of the main contributory factors in achieving mainstreaming of sustainability throughout the Council's business activities"*[2]

During the Panel's visit to Woking, officers highlighted the important role that cross-party political support had played. They stressed that Woking's achievements owed much to the political leadership of the Council in championing the issues of sustainability and energy efficiency. They believed the active participation of the Council's political leaders in promoting

[2] Woking Borough Council, Beacon Council Case Study 03/05 IDEA Knowledge

sustainability has been crucial in mainstreaming this agenda across all of the Council's business activities.

Woking is a hung council with a single-party Executive. However, officers felt that the degree of cross-party political support that had been achieved had effectively managed to take this issue off the political agenda. Consequently there has been no appetite for trying to 'score points' over the issue.

While the Council has already demonstrated its commitment by signing up to the Nottingham Declaration and are engaging the community through the Local Strategic Partnership, there is yet more that can be done to ensure that, corporately, the Council are addressing this issue in a serious and committed fashion.

This has been supported by evidence collected through the questionnaire that went to other Local Authorities and in guidance being issued by such bodies as the Energy Saving Trust, the CSE and the Local Government Association.

Local Authorities such as Shropshire and Nottinghamshire have produced Climate Change Strategies, incorporating targets and statements of intent. Over 130 authorities have also signed up to the Nottingham Declaration and other environmental pledges such as MACC2, the Friends of the Earth Climate Resolution and the Carbon Trust's Carbon Management Programme. However, strategies and commitments on their own are not enough for change to be implemented.

During discussion in the workshop there was widespread agreement that while tackling Climate Change is an issue that everyone needs to take responsibility for, there was specific consideration of the role that 'champions' might play in reinforcing key messages and strategies.

The Council currently has a Member Champion for Energy but this is not mirrored on the officer side or within each service area. One of the discussion groups suggested that it might be useful to establish a Member/Officer Board with a remit to specifically look at energy and sustainability issues. Another suggestion was that a senior officer leadership group could be set up to lead and reinforce messages on this issue.

The Panel recommends:

R.1. That a high level member/officer advisory group is established to take forward the recommendations that are accepted from this review. The group should:

- Comprise officers at Director or Assistant Director level
- Meet quarterly and report back to O & S on 6-monthly basis, updating on the progress that is being made taking forward the review's recommendations

R.2. That Officer Champions are identified in each service area to endorse, support and raise the profile of measures aimed at delivering emissions reductions. Champions should:

- receive the full support of senior staff and have delegated authority to carry out their role
- receive appropriate training and support
- report to the high-level member/officer advisory group

3.2.5 Planning

At the Contributor Session and the Workshop the Panel heard that there can be misconceptions about what it is possible for residents and developers to achieve when they are investigating the potential for installing renewable technologies such as PV panels or wind turbines. Regulations that determine planning applications for such installations can appear complex and seem to present a number of obstacles that have to be overcome. The Panel heard that quite often these misconceptions about how difficult it is to submit a planning application and get it through successfully can be a deterrent to residents and developers even trying in the first place.

In addition, the Panel heard that there can be a lot of popular misconceptions about what latitude there is for installing many of the available renewable and energy efficient devices in a Conservation Area or a World Heritage Site such as Bath.

The 'Merton Policy' was an innovative piece of planning policy, pioneered by the London Borough of Merton, which requires the use of renewable energy for all new non-residential developments above a threshold of 1000 sq metres to reduce annual carbon dioxide emissions. Merton set a target for reducing annual CO2 emissions by 10% through the use of onsite renewable energy. In their forthcoming Local Development Framework, Merton will be going beyond their original target and are aiming to incorporate a similar target that applies to both new build and conversions and at a reduced threshold of 500 sq metres. Over a hundred further Local Authorities have now incorporated or are planning similar or even more stretching targets in their own Local Development Frameworks.

The Panel recommends:

R.6. That a target is embedded within the Local Development Framework requiring that at least 15% of energy in new developments should come from a renewable source.

R.11 That there is a review of conservation area and listed building planning policy to increase the uptake and installation of energy saving installations.

On their visit to Woking, the Panel heard that increased joined up working between the Planning Department and colleagues in sustainability teams can help to strengthen the role that planning officers can play. Woking has recently issued Climate Neutral Development Guidance which is supported by a range of on-line advices for planners and developers, helping them to deliver more environmentally sustainable projects. Currently targets for the percentage of renewable energy in new developments are only voluntary, but the emerging Local Development Framework will introduce a compulsory target stipulating that 20% of energy must come from on-site renewables.

Officers in the Climate Change team have been working closely with colleagues in the Planning Department to advise them on how this target can be met. They have also worked in partnership with their local energy advice centre to deliver a range of seminars and other training events for planners within the authority, advising them how they can best support developers in achieving these new targets.

This advice was echoed in the contributor session and workshop that the Panel attended. The point was made on a number of occasions that it is vital that the Council can make sure that all its planning officers are more aware of what is possible in the field of renewables, to assist them when it comes to processing applications from residents and developers. By doing so, more applications can be encouraged and the process can be made a lot simpler for both parties.

The Panel recommends:

R.10 That the Executive Member encourages closer working between Sustainability & Planning teams and members of Development Control Committees on training and development opportunities

R.12 That in the longer term, the Council creates the post of an Environmental Sustainability Officer to sit within Planning Services.

3.3 Energy Services Companies

The review set out to investigate the potential of setting up an energy services company.

3.3.1 What is an Energy Services Company?

> *"An Energy Services Company, [or ESCO], is a business created in order to sell energy services to customers, often small scale and with environmental objectives such as energy efficiency improvements or renewable energy generation*[3] [ii]

There are two basic types of renewable energy based ESCOs. One generates and sells energy then uses the proceeds to fund energy efficiency measures in the local community, whilst the other produces and distributes an energy service to the local market. Renewable energy based ESCOs use renewable energy technologies, including wind turbines, wood fired heating systems, or co-generation of heat and electricity from engines fired by a renewable source of energy such as biomass, to deliver the energy component of the energy service[iii].

3.3.2 Thameswey Energy Services Company, Woking

As part of their review, members of the Panel and officers visited Woking Borough Council to learn more about the ESCO that they have established. A full account of this visit can be found in Appendix F.

By 1997, seven years into their efforts to manage energy usage, Woking Borough Council felt they had achieved as much as they could with conventional energy saving projects and explored the possibility of establishing their own private company to deliver energy and energy services. Having investigated what was legally possible for a Local Authority; in 1999 the Council, in partnership with a Danish electricity company, formed a public/private joint venture (Thameswey and Thameswey Energy). This new company was able expand upon the energy efficiency advice programmes that the Council had been undertaking and to was now able to supply customers with electricity on a private grid (or 'wire') sourced from combined heat and power and renewable energy networks.

One of the first major projects that they undertook was the town centre private wire CHP/absorption cooling district energy system. Thermal energy is produced from natural gas in 6 sites across the town centre and provides enough electricity and heating for these sites and other local authority-owned buildings including sheltered housing developments. The remainder of the energy produced is distributed via a public wire to residents and commercial businesses, with any excess being sold on to the national grid.

[3] P96, English Partnerships Sustainable Energy Review, March 2003

Its projects are financed with shareholding capital and loan finance. The company designs, finances, builds and operates sustainable energy services both within and outside the borough and took on the running of the Council's existing energy efficiency schemes such as the Winter Warmer scheme (a grant programme for insulating residential properties)[4].

Thameswey is able to provide residential customers with sustainable energy services at less cost than their previous energy suppliers. Woking believe that their energy supply is 5% cheaper than whatever the local energy supplier could provide on a dual fuel tariff. As a result of this pioneering work, Woking received the Queen's Award for Innovation in 2001 – the only Local Authority to have been granted this award.

Woking are the only authority in the UK that have gone as far to establish an Energy Services Company on the scale of Thameswey, but there are number of ways that Local Authorities can be involved in the establishment of an energy services company on a smaller scale. The Energy Saving Trust has a team to provide information and advice to Local Authorities about how they can go about developing ESCOs in their area and offer free consultancy, access to best practice case studies and a telephone hotline for further support and advice.

The Panel recommends:

R.14 That work is undertaken to investigate the possibility of setting up an Energy Services Company (ESCO) and determine what they would be able to deliver so that the Council can meet it climate change objectives

3.4 Best Practice Energy Efficient Buildings

The review set out to investigate what best practice existed in the area of energy efficient buildings.

The Panel heard from the Somer Housing Group about the initiatives that they support amongst their residents to encourage more efficient use of energy within their existing buildings. These included:

- Offering residents the opportunity to have loft and cavity wall insulation installed
- Carrying out a series of energy audits
- A sustainable energy forum that had handed out energy efficient light bulbs

[4] Additional information from Energy Saving Trust document published Jan 2005 and found at www.est.gov.uk/aboutest/how/energyservices/

- Advice on energy efficiency measures included in their newsletter to residents
- The establishment of an Environmental Action Group amongst residents to help develop an action plan to implement energy efficiency measures.

During the Contributor Session, the Panel's attention was drawn to an eco-friendly development that had recently completed in nearby Somerset. Great Bow Yard in Langport is a development of twelve houses and flats that have been built using sustainable materials and are heated and powered by a range of energy efficient and renewable sources. The aim of the Great Bow Yard project was to reduce water consumption and CO2 emissions from fossil fuels. Where possible, the materials that were used to build the development were sourced locally and were reclaimed materials. The development has been hailed as a model for sustainable construction, showing that it is economically and commercially viable.

The development uses a range of techniques, for example all the houses have double the insulation currently required by building regulations and wood burning stoves have also been fitted in some of the homes. There are solar thermal panels mounted on the south facing roofs which could reduce water-heating costs by £100 p.a. at current prices for gas/electricity. Some of the houses have their own 1,500-litre rainwater tank - enough for over 300 flushes - to store filtered water from the roof to supply each toilet. The developers estimate the potential annual savings on running costs for residents of the eco-homes at Great Bow Yard could be in excess of £500 per year.

Closer to Bath, since 2000 Wessex Water have had their headquarters based in a building that is one of very few to achieve an Excellent Environmental Assessment Award under BREEAM 98 for Offices from the Building Research Establishment , with an environmental performance index of 10 - the highest possible. During construction of the site, reclaimed materials were used where possible and locally quarried stone was used to clad the steel frame of the building. Care was taken to recycle as much of the site waste as possible, and up to 75% of all the construction waste created was able to be recycled.

There are a number of features that have been included into the design of the building that help make the best use of energy and resources such as sunlight and rainwater. Energy efficient lighting and equipment and solar water heating panels are used throughout the building and rainwater is collected in three large tanks on site for flushing toilets in the building and provides up to 95% of the water that is needed. The company are now in the process of investigating energy generation from sludge, wind turbines on or adjacent to their land and the use of biofuels in standby generators.

3.5 Increasing Energy Efficiency in Council Buildings

The review set out to identify ways in which the Council can manage energy usage in its own buildings in a way that will reduce carbon emissions.

The findings of the questionnaire that was sent to other Local Authorities revealed that there is wide range of activities that are being undertaken, from small scale quick wins through to more comprehensive projects and strategies. Examples of these activities include:

- Green Office Guides for Staff
- School Boiler Replacement Programme
- Wood heat Boilers
- Geo-thermal heating in new school
- Energy Surveys
- Environmental Champions
- Green Energy Contracts
- Low Water Urinals
- Energy Controls (e.g. thermostats and radiator valves)
- Insulation Installation Programmes

Many authorities reported that along with the implementation of energy efficiency measures came the added benefit of short and long-term cost savings. For example, one authority reported that they achieved a saving of £376,547 on energy and water bills following the establishment of an Energy and Water Conservation Fund. This is a fund that was set up with £100k a year with money sourced from that Council's Corporate Wide Initiative Budget. Work undertaken through this programme has included:

- **Lighting** (e.g. automatic lighting controls, low energy lamps)
- **Insulation** (infill to window panels, suspended ceilings, cavity wall insulation, secondary glazing, solar film, etc);
- **Energy Controls** (thermostatic radiator valves, thermostats, etc);
- **Water** (push taps, rainwater recovery systems, urinal flush controls, waterless urinals, etc).

In the near future this fund will become self-funding with the annual repayments from previous projects paying for the new ones.

This approach to ring-fencing money that has been saved through energy efficiency measures and ploughing it back into further energy saving projects has also been adopted at Woking Borough Council. As a result of the savings that were achieved through their Energy Management Audit, monies saved were used to fund further measures rather than being returned to the Service Area where the savings were achieved.

R.16 That where possible, opportunities for applying renewable technologies are always appraised to help deliver the Council's services – e.g. stand-alone lighting columns in rural areas

R.17. That Council owned buildings across the district are identified for the installation of energy efficiency and renewable energy technologies.

R.18. That the officer/member advisory group give advice on the appropriate financial and service planning that is required in taking forward the recommendations that are accepted by the Executive.

R.19 That innovative finance options are explored to ring-fence the savings achieved through energy efficiency measures. These savings should be reinvested in further energy-efficiency projects with an element of 'reward' money being allocated back to service areas that have contributed to delivering the savings.

The review set out to identify ways in which the council can encourage other large building operators in the city to manage energy consumption more efficiently.

There are two key approaches that the Council can adopt to encourage large building operators in the city to manage their energy consumption more efficiently. Firstly in its role as a Planning Authority, the Council has the ability to influence from the very earliest stages. It can guide and regulate how sustainable new developments can be from the outset and can encourage developers to investigate

Many Local Authorities have been working with developers and advising them from an early stage on how they can make their schemes more sustainable. Authorities such as Woking and Bristol have published detailed guidance advising on energy and environmental performance.

R.7 That a strong sustainable construction policy is embedded in the Local Development Framework.

R.8. That all applicants and developers should be required to submit information detailing the level of renewable energy and energy efficiency measures in their applications.

R.9 That Sustainable Construction Guidance is developed to support the Council's policy that was agreed in December 2004.

Secondly, there is a role for the Council to help promote, educate and advise residents about the kinds of energy efficient measures that can be adopted.

CSE runs the Bristol & Somerset Energy Efficiency Advice Centre (EEAC). It is part of a national network of 52 centres across the UK which provides free, impartial and locally relevant energy efficiency advice to householders and small businesses. However the EEAC which serves residents of Bath and North East Somerset is located outside of the Authority in Bristol. This presents a significant deterrent in allowing residents and developers in the authority getting easy access to this free, impartial advice.

The Council in this case therefore has even more of a role as a source of information and advice for interested residents and developers. The Panel heard that members of the public and indeed developers can often be bewildered by the range of information and the sources where this information is coming from.

As part of the Energy Review that the Government ran earlier this year, the Department for Trade and Industry hosted a number of stakeholder seminars with energy providers, local authorities and Other Government Departments. Coming out of these seminars were messages that Local Authorities were seen as trusted sources of information when it came to advice on energy efficiency measures and renewable energy technologies.

The Panel recommends:

R.15 ***Advice & Education*** - That work is progressed to establish a one-stop energy efficiency advice shop within the B&NES area for local residents.

3.7 Targets

The review set out to look at how other local authorities are setting their targets and investigated what potential there might be for developing targets for B&NES beyond 2009.

3.7.1 Targets in B&NES

By signing up to the Nottingham Declaration, the Council has committed itself to achieving a 'significant reduction of greenhouse gas emissions. While there are no specific targets detailed within the declaration that it asks authorities to meet, by signing the Declaration the Council has committed itself to working toward helping deliver the emissions targets that have been agreed at a national level.

There is no formal monitoring process in place for signatories of the Declaration. As the Declaration is non-statutory there are no sanctions if a council has not delivered on a particular aspect of the declaration. However, all signatories of

the Declaration are being encouraged to set targets and publicise their achievements in order to maintain momentum and to motivate both staff and the community.

Through the Invest to Save Project, B&NES has set itself a target of reducing the emission of CO2 across the Local Strategic Partnership by 10% over the 3 year life span of the project. This is a minimum target for the project and it is hoped that larger reductions will be achieved.

Emerging from the Energy Audit that is currently being undertaken will be action plans for Service Areas and their buildings across the Council. It is intended that these action plans will contain achievable targets for reducing energy usage and managing down emissions of climate change gases. As this report is being written there is no available timetable for this process.

3.7.2 Other Local Authorities

All bar one of the respondents to the questionnaire reported that their authority had in place or were developing targets aimed at cutting emissions of CO2 along with commitments to increase energy efficiency and their usage of renewable sources of energy.

Through the information that was gathered it emerged that many Local Authorities have gone beyond the broad commitments laid out in the Nottingham Declaration and have formalised a number of different kinds of targets.

These included targets addressing specific areas within the Council's operations through to adopting national and internationally recognised standards. Amongst these were included:

- 25% reduction in CO2 from corporate buildings on a 1998 baseline
- 15% reduction in CO2 emissions from Council's own operations by 2009/10 from a baseline of 2000/01
- 30% reduction in CO2 emissions from a 1990 baseline by 2005
- 3% annual reduction in greenhouse gases from council-owned buildings
- 20% renewable energy by 2020
- 30% of renewable energy sources to be included in the design of all new developments procured by the Council
- Adopting the Royal Commission on Environmental Pollution's targets to reduce CO2 equivalent emissions by 60% by 2050 and 80% by 2100

Woking has adopted the target recommended by the Royal Commission on Environmental Pollution. To help meeting this challenging target, the Council has adopted a comprehensive Climate Change Strategy which seeks to influence and underpin everything that the Council does.

While their Climate Change Strategy 'operates on a long-term perspective, it includes targets and actions to be achieved in both the short and medium term too'. Their strategy, which is divided into themes such as Planning & Regulation, Energy Services, Procurement and Education & Promotion, has an action plan set against each theme. The Strategy has helped inform an implementation plan which identifies a number of appropriate actions and associated timescales. Each action has a timescale of 1-3 years, 3-5 years or 5-10 years. Progress is monitored through regular reports and quarterly Climate Change Working Group meetings which are attended by members and officers.

Breaking down their targets in this way, makes the long-term objective easier to monitor and manage. By achieving these shorter-term targets it is easier to see what progress is being made and what efficiencies are being gained.

3.7.3 Energy Saving Trust Recommendations

The Energy Saving Trust has highlighted the value of having corporate targets incorporated at a Local Authority level. As a result of their experience of working with Local Authorities, they have developed a number of voluntary targets that LAs might want to consider as a starting point. These are:

- Cut greenhouse gas emissions by 60% by 2050
- 20% improvement in domestic energy efficiency from 2010–2020
- End fuel poverty in vulnerable households by 2010 and in all households by 2016–18
- Adopt building regulations requirements rather than Decent Homes as the standard for thermal efficiency
- Adopt renewable energy supply wherever possible
- Utilise whole-life costing when assessing capital projects
- Incorporate CHP/Community energy in developments wherever possible[5]

The Panel recommends:

R.5. That the Council support the target that is endorsed by the Nottingham Declaration to achieve a 60% reduction of carbon dioxide emissions by 2050.

R.6. That the Council develops appropriate performance management indicators to monitor the implementation of its strategy to reduce carbon emissions.

[5] P18, Leading the Way: how local authorities can meet the challenge of climate change, Local Government Association, June 2005