



Planning shapes the places where people live and work and the country we live in. It plays a key role in supporting the Government's wider social, environmental and economic objectives and for sustainable communities.



# PLANNING

Consultation

## Planning Policy Statement: Planning and Climate Change Supplement to Planning Policy Statement 1

TOMORROW'S CLIMATE  
*Today's Challenge*™

December 2006



**Consultation**

Planning Policy Statement:

Planning and Climate Change

Supplement to Planning Policy Statement 1

On 5th May 2006 the responsibilities of the Office of the Deputy Prime Minister (ODPM) transferred to the Department for Communities and Local Government

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# Part 1 Introduction



# Part 1 Introduction

- 1.1 *Planning Policy Statement 1 (PPS1): Delivering Sustainable Development* sets out the overarching planning policies on the delivery of sustainable development through the planning system. This consultation seeks views and comments on a draft Planning Policy Statement (PPS) *Planning and Climate Change* which, when finalised, will supplement PPS1.
- 1.2 *Planning and Climate Change* sets out how spatial planning should contribute to reducing emissions and stabilising climate change (mitigation) and take into account the unavoidable consequences (adaptation). The consultation forms part of a wider package of action being taken forward by Communities and Local Government to help deliver the Government's ambition of achieving zero carbon development. This includes the *Code for Sustainable Homes*<sup>1</sup> and a consultation document, *Building a Greener Future*<sup>2</sup>, which sets out how planning, building regulations and the *Code for Sustainable Homes* can drive change, innovation and deliver improvements to the environment. Details of these documents' availability are at Part 5.

## Planning and Climate Change

- 1.3 Climate change is real and is happening now. The recent Stern Review<sup>3</sup>, in assembling an overwhelming body of scientific evidence, makes it clear that human activity is changing the world's climate and, as these changes deepen and intensify, there will be profound and rising costs for global and national prosperity, people's health and the natural environment. Even with effective policies for reducing emissions in place, the world will still experience significant climate change over the coming decades from emissions of carbon dioxide and other greenhouse gases already released. Equally, the Review makes it plain that we can act to avoid the worst of these costs. It sets out how and demonstrates that the price of doing so is much less than doing nothing.
- 1.4 Effective spatial planning is one of the many elements required in a successful response to climate change. But used positively it has a significant contribution to make. *Planning and Climate Change* sets out how spatial planning, in providing for the new homes, jobs and infrastructure needed by communities, should help shape places with lower carbon emissions and resilient to the climate change now accepted as inevitable. Spatial planning, regionally and locally, provides the framework for integrating new development with other programmes that influence the nature of places and how they function. This means that it has a central part to play in enabling local action and in creating an attractive environment for innovation and investment by the private sector.

1 *Code for Sustainable Homes*, Communities and Local Government, 2006.

2 *Building a Greener Future*, Communities and Local Government, 2006

3 Stern Review: *The Economics of Climate Change*, HM Treasury (30 October 2006).

## The PPS's content

### OVERALL

- 1.5 *Planning and Climate Change* is a new-style PPS reflecting the expectations of the Government's Planning Green Paper, *Planning – delivering a fundamental change*. In developing the PPS, the aim has been to focus on national policy and to provide clarity on what is required at regional and local levels, to ensure that decisions are made at the most appropriate level and in a timely fashion to deliver the urgent action needed. The consultation draft has been developed in light of discussions with stakeholders on the effectiveness of current planning policy on climate change and suggestions for where it should be focused, re-enforced and clarified. A companion guide is being prepared to provide practice guidance and support for the implementation of the policies in the PPS. An outline of the envisaged content of the practice guide is provided at Part 3.
- 1.6 *Planning and Climate Change* does not assemble all national planning policy relevant or applicable to climate change and should be read alongside the national PPS/G series. Where there is any difference in emphasis on climate change between the policies in this PPS and others in the national series, this is intentional and this PPS should take precedence.

### MANAGING PERFORMANCE ON CARBON EMISSIONS

- 1.7 Sustainability appraisal will be important, both regionally and locally, in shaping appropriate spatial strategies<sup>4</sup>. A key concern will be identifying and evaluating possible tensions or inconsistencies between current, or likely future, baseline assessments and securing spatial strategies in line with the Key Planning Objectives in *Planning and Climate Change*. The Government's intention is to move towards a common methodology for regions in monitoring and reporting on the expected carbon impacts of regional spatial strategies (RSS) as soon as possible. The aim is for trajectories in different regions to be directly comparable. However, this common methodology, and robust data behind it, will need to be developed. In the meantime this PPS encourages regional planning bodies (RPBs), as part of their approach to managing performance on carbon emissions, to produce regional trajectories for the expected carbon performance of new residential and commercial development.
- 1.8 These trajectories would be set out in RSS, and use a measurement based on 'average units/amounts of floorspace'. The proposed approach is intended to help in testing the level of ambition in RSS, without threatening desirable new development, and in demonstrating the extent to which new development, over time, is expected to become more carbon-friendly. The practice guidance being developed to support *Planning and Climate Change* will include advice on generating, developing and monitoring the trajectories.

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<sup>4</sup> Office of the Deputy Prime Minister (November 2005), *Sustainability Appraisal of Regional Spatial Strategies and Local Development Documents: Guidance for Regional Planning Bodies and Local Planning Authorities*.

- 1.9 The Department will work with RPBs, and other stakeholders, to ensure all views are taken into account in working up a satisfactory and deliverable approach on developing trajectories which can, in time, become a common methodology across regions. It is clearly important that any approach to predicting and managing carbon performance is consistent with applicable expertise and available information, recognising that this will improve over time. In responding to the consultation, it would be helpful to provide comment on managing performance on carbon emissions and the application of the proposed regional trajectories. Consultation questions are at Part 6.

#### INTEGRATION WITH BUILDING REGULATIONS

- 1.10 Through *Planning and Climate Change*, the *Code for Sustainable Homes*, and by setting a timetable for further strengthening of Building Regulations (as explained in *Building a Greener Future*), the Government's aim is a set of policies that provides clarity about the framework for achieving zero carbon development. This will provide greater certainty for the development industry and other related businesses, and support cost-effective solutions without over-regulating the sector. This means it is important to be clear about the relationship between planning policies, which through development control regulate the location and siting of development; and Building Regulations, which deal with conservation of fuel and power, health and safety, accessibility in buildings; and the Code – which addresses sustainability in homes.
- 1.11 *Planning and Climate Change* sets out a clear and challenging role for regional and local spatial strategies. They are expected to help shape the framework for energy supply in their area. At the local level, development plan documents (DPDs) will set policies on the provision of low carbon and renewable sources of energy to provide the platform necessary for securing and complementing the increasingly high levels of energy efficiency required by Building Regulations. This provision should be “significant”, so as to reflect the full potential of local opportunities but without undermining the new development needed in communities. In the interim period before plans are adopted it is proposed planning authorities should require a standard of 10 per cent.
- 1.12 The approach reflects the important role of local government in leading, shaping and supporting regional and local strategies that help move to low-carbon living. Appropriate technologies, and their potential, will vary from place to place. Judgements as to how new development should integrate with local potential, and the vision for securing and delivering this potential, are best made locally not nationally, and as part of the wider consideration of the infrastructure and services needed to secure sustainable communities.
- 1.13 Many local planning authorities (LPA) want to move quickly to ensure new development delivers higher environmental standards. *Planning and Climate Change* encourages LPAs to engage constructively and imaginatively with developers to secure the delivery of sustainable buildings and recognises there will be local circumstances that justify higher standards for particular developments. Where there are demonstrable and locally specific

opportunities for requiring higher levels of building performance it is proposed these should be set out in advance in a DPD<sup>5</sup>. These could include, for example, where there is significant local opportunity for major development to be delivered at higher levels of the *Code for Sustainable Homes*. In considering and justifying any local approach, LPAs would be expected to have regard to a number of considerations including whether the proposed approach was consistent with securing the expected supply and pace of housing development shown in the housing trajectory required by PPS3. We will provide further guidance in the companion guide that will support the PPS.

### Transitional Arrangements

- 1.14 The need to take steps to mitigate and adapt to climate change is not a new requirement. RPBs and LPAs should already be taking steps to ensure that development plans contribute to global sustainability by addressing the causes and potential impacts of climate change<sup>6</sup>. RPBs and LPAs may, however, come under pressure or themselves consider it necessary to halt plan-making so as to allow time to absorb the full implications of the policies in *Planning and Climate Change*, in its draft form as well as when finalised. The Department considers that such pressure should normally be resisted, but anticipates that RPBs will consider whether the content of emerging revisions of RSS, and LPAs similarly for DPDs, is consistent with the Key Planning Objectives set out in *Planning and Climate Change*.
- 1.15 Where their emerging strategies are consistent, RPBs and LPAs should nevertheless also consider whether there are any omissions in the expected detail of application and implementation, bearing in mind that this is a consultation and may change in the light of consultation responses. If omissions are identified which can be addressed quickly, and without delay to the overall strategy, consideration should be given to the desirability of doing so. If more substantial omissions are identified, and addressing these would cause significant delay, they should be returned to via an early review.
- 1.16 Where emerging revisions to RSS or draft DPDs are inconsistent with the Key Planning Objectives in *Planning and Climate Change* the Department expects RPBs and LPAs to put work in hand to ensure consistency before their adoption. In considering a decision to delay, RPBs and LPAs should consider, with the relevant Government Office, how best to minimise the disruption to the plan-making timetable.

### The Consultation Process

- 1.17 Provisional assessments of the impact of the policy are provided in the Partial Regulatory Impact Assessment at Part 4.

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<sup>5</sup> The soundness of policies set out in a development plan document will be tested thoroughly during its independent examination after which the inspector will produce a report with recommendations which will be binding upon the authority in question.

<sup>6</sup> Office of the Deputy Prime Minister (February 2005) *Planning Policy Statement 1: Delivering Sustainable Development*, paragraph 13(ii).

- 1.18 This consultation can be viewed on the Communities and Local Government website: [www.communities.gov.uk/index.asp?id](http://www.communities.gov.uk/index.asp?id).  
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- 1.19 We look forward to receiving comments and views on the consultation of *Planning and Climate Change*, and on the other elements of the Department's consultation package. We invite responses by **8 March 2007**. You may wish to use the form at Part 6 that sets out questions on which we would particularly like your views.
- 1.20 Responses and any questions about the consultation should be directed to:  
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Or by e-mail to: [CCPPSConsultation@communities.gsi.gov.uk](mailto:CCPPSConsultation@communities.gsi.gov.uk)
- 1.21 A summary of responses to this consultation will be published by 8 June 2007 on the Department's website. Paper copies will be available on request.
- 1.22 Information provided in response to this consultation, including personal information, may be published or disclosed in accordance with the access to information regimes (these are primarily the Freedom of Information Act 2000 (FOIA), the Data Protection Act 1998 (DPA) and the Environmental Information Regulations 2004).

- 1.23 If you want the information that you provide to be treated as confidential, please be aware that, under the FOIA, there is a statutory Code of Practice with which public authorities must comply and which deals, amongst other things, with obligations of confidence. In view of this it would be helpful if you could explain to us why you regard the information you have provided as confidential. If we receive a request for disclosure of the information we will take full account of your explanation, but we cannot give an assurance that confidentiality can be maintained in all circumstances. An automatic confidentiality disclaimer generated by your IT system will not, of itself, be regarded as binding on the Department.
- 1.24 Communities and Local Government will process your personal data in accordance with the DPA and in the majority of circumstances; this will mean that your personal data will not be disclosed to third parties.
- 1.25 It would be helpful if responses from representative groups could give a summary of the people and organisations they represent. This consultation is being conducted in accordance with the *Government's Code of Practice on Written Consultation*. The criteria are reproduced in Part 7.

## Part 2 Proposed Planning Policy Statement: Planning and Climate Change



## Part 2 Proposed Planning Policy Statement: Planning and Climate Change

Planning Policy Statements (PPS) set out the Government's national policies on different aspects of spatial planning in England. PPS1 sets out the overarching planning policies on the delivery of sustainable development through the planning system.

This PPS on climate change supplements PPS1 by setting out how planning should contribute to reducing emissions and stabilising climate change (mitigation) and take into account the unavoidable consequences (adaptation). It does not seek to assemble all national planning policy relevant or applicable to climate change and should be read alongside the national PPS/G series. Where there is any difference in emphasis on climate change between the policies in this PPS and others in the national series this is intentional and this PPS takes precedence.

These policies on planning and climate change should be taken into account by regional planning bodies in the preparation of regional spatial strategies, by the Mayor of London in relation to the spatial development strategy in London and by local planning authorities in the preparation of local development documents. They may also be material to decisions on individual planning applications.

A companion guide is being prepared to provide practice guidance and support for the implementation of the policies in this PPS.

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## CLIMATE CHANGE AND PLANNING

**“Climate change represents a potentially catastrophic threat, but it is within our control to address it – and address it we must.”<sup>1</sup>**

1. There is a compelling scientific consensus that human activity is changing the world’s climate. The evidence that climate change is happening, and that man-made emissions<sup>2</sup> are its main cause, is strong and indisputable. If these changes deepen and intensify, as they will without the right responses locally and globally, they will increasingly change the environment. For the UK, this could mean more extreme weather events, including hotter and drier summers, flooding and rising sea-levels leading to coastal realignment. There will be permanent changes in the natural environment but also, and increasingly, substantial challenges to national prosperity and social cohesion. It is quite likely that the impacts of climate change will be felt first, and disproportionately so, by the most vulnerable in society.
2. The Government believes that climate change is the greatest long-term challenge facing the world today. Addressing climate change is therefore the Government’s principal concern for sustainable development. Policies and priorities for action, both in the UK and internationally, are set out in the Climate Change Programme<sup>3</sup> and the report of the 2006 Energy Review<sup>4</sup>.
3. The UK is on track to meet, and even exceed, its commitment under the Kyoto Protocol to reduce emissions of greenhouse gases by 12.5 per cent below 1990 levels by 2008-12. Averting dangerous climate change, however, is a huge challenge that requires more pronounced and continuing cuts in emissions. The Government has, therefore, set a domestic target to reduce carbon dioxide emissions by 20 per cent below 1990 levels by 2010. The Climate Change Programme will take the UK closer to this domestic target, and ensure that the UK can make real progress by 2020 towards the Government’s long-term ambition to reduce carbon dioxide emissions by some 60 per cent by about 2050.
4. Even with effective policies for reducing emissions in place, the world will still experience significant climate change over the coming decades from emissions of carbon dioxide and other greenhouse gases already released. Changes in climate are likely to have far-reaching, and potentially adverse, effects on our environment, economy and society for which we need to prepare.
5. There is an urgent need for action. Used positively, spatial planning has a pivotal and significant role in helping:
  - secure enduring progress against the UK’s emissions targets, by direct influence on energy use and emissions, and in bringing together and encouraging action by others;
  - deliver the Government’s ambition of zero carbon development;

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<sup>1</sup> *Securing the future. The UK Government Sustainable Development Strategy HM Government 2005.* Foreword by the Prime Minister Rt. Hon. Tony Blair MP.

<sup>2</sup> See Annex A.

<sup>3</sup> *Climate Change The UK Programme 2006* March 2006, CM6764 and see Annex B.

<sup>4</sup> *The Energy Challenge*, July 2006, CM6887 and see Annex C. The Government will publish an Energy White Paper in 2007. This White Paper will set out the Government’s energy policies for tackling climate change.

- shape sustainable communities that are resilient to the climate change now accepted as inevitable;
- create an attractive environment for innovation and for the private sector to bring forward investment in renewable and low-carbon technologies and supporting infrastructure; and,
- give local communities real opportunities to influence, and take, action on climate change.

## KEY PLANNING OBJECTIVES

6. Regional planning bodies, and all planning authorities should prepare and deliver spatial strategies that:
  - make a full contribution to delivering the Government’s Climate Change Programme and energy policies, and in doing so contribute to global sustainability;
  - in enabling the provision of new homes, jobs, services and infrastructure and shaping the places where people live and work, secure the highest viable standards of resource and energy efficiency and reduction in carbon emissions;
  - deliver patterns of urban growth that help secure the fullest possible use of sustainable transport for moving freight, public transport, cycling and walking; and, overall, reduce the need to travel, especially by car;
  - secure new development and shape places resilient to the effects of climate change in ways consistent with social cohesion and inclusion;
  - sustain biodiversity, and in doing so recognise that the distribution of habitats and species will be affected by climate change;
  - reflect the development needs and interests of communities and enable them to contribute effectively to tackling climate change; and,
  - respond to the concerns of business and encourage competitiveness and technological innovation.

## DECISION-MAKING PRINCIPLES

7. Regional planning bodies and all planning authorities should adhere to the following principles in preparing and delivering spatial strategies:
  - spatial strategies should be in line with the Key Planning Objectives set out in this PPS;

- the planned provision for new development and its spatial distribution should contribute to mitigating climate change through improvements in carbon performance. In turn, planning authorities should prepare local development documents consistent with the regional spatial strategy (RSS);
  - new development should be located and designed to optimise its carbon performance and limit its likely contribution to carbon emissions. Specifically, substantial new development<sup>5</sup> should be expected to consider and take into account the potential of decentralised energy supply systems based on renewable and low-carbon energy;
  - new development should be located and designed for the climate, and impacts, it is likely to experience over its intended lifetime;
  - climate change considerations should be integrated into all spatial planning concerns, including transport, housing, economic growth and regeneration, water supply and waste management, and not considered separately;
  - mitigation and adaptation should not be considered in isolation of each other, and opportunities for their integration in the development of spatial strategies, and their delivery, should be maximised;
  - sustainability appraisal (incorporating strategic environmental assessment) should be applied so as to shape planning strategies and policies that support the Key Planning Objectives set out in this PPS. Weight should be given to securing benefits which, although not immediately available, would help deliver longer term sustainability; and,
  - appropriate indicators should be selected and monitored and reported on in regional planning bodies' and planning authorities' annual monitoring reports. Such monitoring should be the basis on which regional planning bodies and planning authorities periodically review and roll forward their planning strategies. Reviews should reflect future updates to the national Climate Change Programme, be sensitive to scientific and technological developments, and be carried out at least every five years, or sooner where there are signs that the spatial strategy in its implementation is insufficiently contributing to the delivery of the Key Planning Objectives set out in this PPS.
8. Planning authorities should adhere to the following principles in determining planning applications:
- controls under the planning, building control and other regulatory regimes should complement and not duplicate each other;
  - information sought from applicants should be consistent with that needed to demonstrate conformity with the development plan and this PPS, and be proportionate to the scale of the proposed development and its likely impact;

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<sup>5</sup> See paragraph 23.

- specific and standalone assessments of new development should not be required where the required information is to be made available to the planning authority through the submitted Design and Access Statement, or forms part of any environmental impact assessment or other regulatory requirement; and,
- in considering planning applications before development plans can be updated to reflect this PPS, have regard to this PPS as a material consideration which may supersede the policies in their development plan. Any refusal of planning permission on grounds of prematurity should be consistent with the policy in *The Planning System: General Principles*<sup>6</sup>.

## REGIONAL SPATIAL STRATEGY

### Preparing the regional spatial strategy

9. It is important that regional planning bodies should work with all stakeholders in the region and alongside their constituent planning authorities to develop a realistic and responsible approach to addressing climate change. In doing so, they should:
  - consider how the region’s activities contribute to climate change and provide a framework for integrating policies for the development and use of land with other policies and programmes that influence the nature of places and how they function;
  - ensure the spatial strategy is in line with applicable national targets, in particular for cutting carbon emissions<sup>7</sup>, and with regional targets on climate change developed through the region’s economic strategy and sustainable development framework;
  - consider the region’s vulnerability to climate change, using the most recent scenarios available from UKCIP<sup>8</sup>, and specifically the implications for built development, infrastructure and services and biodiversity; and,
  - work with neighbouring regions and countries to identify cross-regional concerns.

### Integrating climate change

10. Regional planning bodies should not bring forward policy on climate change in isolation from other regional considerations. Climate change should be a key and integrating theme of the RSS and be addressed in conjunction with the economic, social and environmental concerns that together inform the overall spatial strategy and its components. In particular, regional planning bodies should:
  - pay particular attention to the location of major generators of travel, the effect of differing patterns of urban growth on the movement of goods and supply chains and the potential to build into new and existing development more efficient means of energy supply and increasing contributions from renewable and low-carbon energy sources;

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6 ODPM (January 2005) *The Planning System: General Principles*.

7 See Annex B.

8 UK Climate Change Impacts Programme (UKCIP) at [www.ukcip.org.uk](http://www.ukcip.org.uk)

- focus substantial new development on locations with good accessibility by means other than the private car and where it can readily and viably draw its energy supply from decentralised energy supply systems based on renewable and low-carbon forms of energy supply, or where there is clear potential for this to be realised;
- ensure opportunities for renewable and low-carbon sources of energy supply and supporting infrastructure are maximised;
- set regional targets for renewable energy in line with PPS22<sup>9</sup>, and ensure their ambition fully reflects opportunities in the region and are consistent with the Government’s national target for 10 per cent of electricity to come from renewable sources by 2010 and further aspiration to derive 20 per cent of electricity from renewable sources by 2020<sup>10</sup>, and, where appropriate in the light of delivery, are periodically revised upwards;
- recognise the potential of, and encourage, those land uses and land management practices that help secure carbon sinks;
- consider the potential for carbon capture and storage, and the need for supporting infrastructure, and help realise this potential;
- consider the desirability of avoiding new development in those areas with likely increased vulnerability<sup>11</sup> to climate change, particularly where it is not viable to manage likely risks through suitable measures to provide resilience; and,
- bring forward adaptation options for existing development in likely vulnerable areas.

### **Managing performance on carbon emissions**

11. Regional planning bodies should consider the likely performance of the RSS on mitigating climate change. This should be a key part of the sustainability appraisal, which should be used to identify and evaluate possible tensions or inconsistencies between current, or likely future, baseline conditions and securing RSS in line with the Key Planning Objectives in this PPS<sup>12</sup>.
12. In their approach to managing performance, regional planning bodies should also consider the provision of clear yardsticks for identifying trends in carbon emissions. Targets can provide helpful yardsticks for assessing successful implementation when their likely achievement derives directly from identified policies in the RSS and the likely means of delivery is consistent with other objectives in the RSS. Aspirational targets relying on actions beyond the RSS’s ability to influence directly should normally be avoided as they are not helpful in measuring the operational performance of RSS<sup>13</sup>. Regional planning authorities are therefore encouraged to:
  - produce, and include in the RSS, trajectories for the expected carbon performance of new residential and commercial development; and,
  - express the trajectories as the anticipated carbon emission rate as an average over time<sup>14</sup>.

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<sup>9</sup> ODPM (2004) *Planning Policy Statement 22 Renewable Energy*: see paragraphs 2-5.

<sup>10</sup> *The Energy Challenge. The Energy Review Report 2006*, Cm 6887.

<sup>11</sup> In particular see Communities and Local Government (2006), *Planning Policy Statement 25 Development and Flood Risk*.

<sup>12</sup> ODPM (November 2005) *Sustainability Appraisal of Regional Spatial Strategies and Local Development Documents*.

<sup>13</sup> ODPM (December 2005) *Regional Spatial Strategy Monitoring: A Good Practice Guide*.

<sup>14</sup> See Annex D.

13. Carbon emission trajectories, or other yardsticks for identifying trends in performance, should not be applied directly to decisions on planning applications. They will be part of the framework for planning decisions provided by the development plan, but they are intended as a strategic tool for shaping policies and contributing to the annual monitoring and reporting expected of regional planning bodies. In line with *Plan, Monitor and Manage*, if there is consistent under-performance against the approved trajectories, or other yardsticks for identifying trends in performance, the Secretary of State will expect urgent consideration to be given to an early revision of the RSS's spatial strategy and means of implementation.

### **Regional advice and support**

14. Regional planning bodies should consider convening a broadly-based advisory body on climate change from which expertise can be drawn on the preparation of the spatial strategy and the monitoring of its implementation. Where a similar body in the region already exists for this purpose, regional planning bodies should wherever practicable draw advice from this and not duplicate existing structures and work.
15. The regional planning body should be able to demonstrate that there are adequate mechanisms in place to:
  - assemble data and information on climate change within the region to inform the preparation of the spatial strategy; and,
  - co-ordinate a programme of data collection and monitoring required to keep the spatial strategy under review.
16. To be broadly-based, advice should draw from those with a direct interest in and knowledge of climate change, the built and natural environment and the development process.

## **LOCAL DEVELOPMENT DOCUMENTS**

### **The core strategy**

17. The core strategy should set out policies and proposals in line with the RSS and consider the local circumstances that would allow further progress to be made to achieving the Key Planning Objectives where this would be consistent with the RSS. In doing so, the core strategy should both inform and in turn be informed by the approach to climate change in the sustainable community strategy.

### Identifying land for development

18. In deciding which sites and areas are suitable, and for what type and intensity of development, planning authorities should assess their consistency with the policies in this PPS.
19. In doing so, planning authorities should take into account:
  - the location and whether there is, or the potential for, a realistic choice of access by means other than the private car and for opportunities to service the site through sustainable transport;
  - the capacity of existing and potential infrastructure (including for energy supply, waste management, water and sewerage, and community infrastructure such as schools and hospitals) to service the site or area in ways consistent with cutting carbon emissions and successfully adapting to likely changes in the local climate;
  - the ability to build and sustain socially cohesive communities with appropriate community infrastructure so as to avoid social exclusion, having regard to the full range of local environmental impacts that could arise as a result of likely changes to the climate;
  - the effect of development on biodiversity and the capacity for adaptation, having regard to likely changes in the local climate;
  - the contribution to be made from existing and new opportunities for open space to urban cooling; and,
  - known physical and environmental constraints on the development of land such as sea-level rises, flood risk and stability, and take a precautionary approach to increases in risk that could arise as a result of likely changes to the climate.
20. In deciding which sites and areas to allocate for development, priority should be given to those likely to perform well against the criteria set out in paragraph 19. Those that perform poorly should not normally be considered for allocation for new development. When considering the need to secure affordable housing opportunities in rural areas to meet the needs of local people, planning authorities should recognise that an otherwise acceptable site may not be readily accessible by means of travel other than the private car.
21. In considering the prospects for development of small sites, including those that will come forward as windfall sites in areas generally acceptable for new development, planning authorities should consider how their development can both contribute to, and benefit, from specific proposals identified in the core strategy for mitigating and adapting to climate change.

## Energy supply

22. Planning authorities should assess their area’s potential for accommodating renewable and low-carbon technologies, including for micro-renewables to be secured in new residential, commercial or industrial development. In particular, planning authorities, working closely with industry and drawing in other appropriate expertise, should:
- in developing the core strategy, and their approach to site allocation, pay particular attention to opportunities for utilizing and expanding existing decentralised energy supply systems, and fostering the development of new opportunities for decentralised energy from renewable and low-carbon energy sources to supply proposed and existing development;
  - consider allocating sites for renewable and low-carbon energy sources, and supporting infrastructure, taking care to avoid stifling innovation;
  - look favourably on proposals for renewable energy, including on sites not identified in development plan documents;
  - not require applicants to demonstrate either the overall need for renewable energy and distribution<sup>15</sup> or for a particular proposal for renewable energy to be sited in a particular location;
  - avoid policies that set stringent requirements for minimising impact on landscape and townscape if these effectively preclude the supply of certain types of renewable energy, and therefore other than in the most exceptional circumstances such as within nationally recognised designations<sup>16</sup>, avoid such restrictive policies;
  - ensure that a significant proportion of the energy supply of substantial new development<sup>17</sup> is gained on-site and renewably and/or from a decentralised, renewable or low-carbon, energy supply.
23. In setting out in a development plan document their policy for a significant proportion of the energy supply of substantial new development to be gained on-site and renewably and/or from a decentralised, renewable or low-carbon, energy supply, planning authorities should:
- have regard to the overall costs of bringing sites to the market and the desirability of avoiding any adverse effect on the development needs of communities;
  - ensure the proposed approach is consistent with securing the expected supply and pace of housing development shown in the housing trajectory required by PPS3<sup>18</sup>;
  - make realistic assumptions on the availability of renewable and low-carbon technologies and applicable thresholds for their viable delivery;

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<sup>15</sup> See <http://www.dti.gov.uk/files/file31890.pdf> and <http://www.dti.gov.uk/energy/sources/renewables/planning/planning-process/legislation/renewable-energy/page27887.html>

<sup>16</sup> As listed in paragraph 11 of PPS22.

<sup>17</sup> See paragraph 23.

<sup>18</sup> Communities and Local Government (2006) *Planning Policy Statement 3 – Housing*.

- consider the contribution to be made to meeting the energy performance requirements<sup>19</sup> for new buildings set through Building Regulations;
- bear in mind that off-site but localised generation and supply of energy may be more effective in reducing carbon emissions, and build flexibility into their policies for where this is demonstrably the case because local networks are, or will be, available for connection;
- consider the potential for on-site renewable energy supplies to meet wider needs; and,
- in proposing increases in the proportion of energy supply to be gained on-site and renewably and/or from a decentralised, renewable or low-carbon, energy supply, set out a clear and realistic timeline for when the new standard will be applied so as to allow proposed new development to adjust to that standard successfully.

### **Local development orders**

24. Planning authorities should give positive consideration to the use of local development orders (LDO) to secure decentralised energy supply systems and renewable energy, and other new development consistent with the policies in this PPS.
25. LDOs could be used to extend permitted development rights on appropriate matters across the whole of a local planning authority area. LDOs could also be used to provide permission for certain types of development in parts of a local planning authority area.
26. An LDO could also be site-specific to bring forward development of a particular site or sites. In practice, to ensure that such LDOs deliver the right type of development their use should be complemented by guidance, including design codes, produced by the planning authority and in line with this PPS.

## **DETERMINING PLANNING APPLICATIONS**

27. Development plans form the framework within which decisions on proposals for development are taken. It is important that the development plan is kept up-to-date and properly reflects national policy.
28. In the interim period before the development plan is updated to reflect the policies in this PPS, planning authorities should ensure proposed development is consistent with the policies in this PPS and avoid placing requirements on applicants that are inconsistent. Where proposals are inconsistent with the policies in this PPS, consideration should be given to how they could be amended to make them acceptable or, where this is not practicable, to refusing planning permission.

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<sup>19</sup> Approved by the Secretary of State in the form of target carbon dioxide emission rates. *The Building and Approved Inspectors (Amendment) Regulations 2006* (and associated documents) came into force on 6 April 2006. Regulation 17C requires new buildings to meet emission targets as part of the implementation of the Energy Performance of Buildings Directive.

29. An applicant for planning permission to develop a proposal that will contribute to the delivery of the Key Planning Objectives set out in this PPS and is consistent with the development plan, should expect expeditious and sympathetic handling of the planning application.

### **Responsibilities**

30. Planning authorities should be concerned with the environmental performance of new development and because of this, with the impact of individual buildings on, and their resilience to, climate change. Planning authorities should therefore engage constructively and imaginatively with developers to encourage the delivery of sustainable buildings. They should be supportive of innovation.
31. Planning authorities should not need, however, to devise their own standards for the environmental performance of individual buildings as these are set out nationally through the Building Regulations. Higher standards for new homes are set out in the Code for Sustainable Homes. Where planning authorities wish to require higher levels of building performance, because of local development or site specific opportunities, the expected local approach should be set out in advance in a development plan document. For new homes, local standards should be based on the Code for Sustainable Homes.
32. In considering and justifying a local approach, planning authorities should:
- avoid setting out for application across broad areas requirements for specific construction techniques, particular building fabrics, fittings or finishes, or performance measures for buildings;
  - focus on specific development opportunities and securing an earlier application of higher levels of performance of nationally described standards, for example by expecting identified development proposals to be delivered at higher levels of the Code for Sustainable Homes; and
  - have regard to the overall costs of bringing sites to the market and, in particular, ensure the proposed approach is consistent with securing the expected supply and pace of housing development shown in the housing trajectory required by PPS3.
33. Planning authorities and those responsible for the implementation of the Building Regulations should work closely to ensure integrated and timely decisions under the complementary regimes. This can be assisted by applicants preparing planning and Building Regulation applications in parallel.
34. Applicants for planning permission for substantial new development should through their Design and Access Statement demonstrate in broad terms how the proposed development will comply with the target carbon emission rate applicable<sup>20</sup> through Building Regulations. In particular, applicants should explain the contribution to be secured through decentralised energy supply systems including from on-site renewable sources.

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<sup>20</sup> At the anticipated commencement of the proposed development.

### Designing for environmental performance

35. In their consideration of the environmental performance of proposed development, taking particular account of the climate the development is likely to experience over its expected lifetime, planning authorities should:
- expect applicants to use landform, layout, building orientation and landscaping to minimise energy consumption, including maximising cooling and avoiding solar gain in the summer, and maximise natural ventilation taking into account the likely local noise environment and ambient air quality;
  - give careful consideration to the extent to which the proposed massing of buildings, density and mix of development helps to minimize energy consumption, including maximising cooling and avoiding solar gain in the summer, taking into account the likely local noise environment and ambient air quality;
  - expect substantial new development to gain a significant proportion<sup>21</sup> of its energy supply on-site and renewably and/or connect to a decentralised, renewable or low-carbon, energy supply where available or, where no network is yet available but is proposed through the core strategy with an identified and secured means of implementation, be designed so as to allow connection to that network at a future date;
  - require the provision of public and private open space as appropriate so that new development offers accessible choice of shade and shelter;
  - ensure new development does not create adverse local environmental conditions for people or undermine biodiversity;
  - secure sustainable urban drainage systems, pay attention to the potential contribution to be gained to water harvesting from impermeable surfaces and encourage layouts that accommodate waste water recycling;
  - require provision for sustainable waste management; and,
  - ensure full consideration is given to creating and securing opportunities for sustainable transport in line with PPG13<sup>22</sup> including through:
    - the preparation and submission of travel plans;
    - providing for safe walking and cycling, including where appropriate secure cycle parking and changing facilities; and
    - an appropriate approach to the provision and management of car parking.

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21 In the interim period before “a significant proportion” is tested and defined through the preparation and adoption of a development plan document a standard of 10 per cent should be required.

22 See DETR (2001) *Planning Policy Guidance Note 13 Transport* Chapters 3 and 4 in particular, and supporting practice guidance.

### **Safeguarding environmental performance**

36. In determining planning applications, planning authorities should, where relevant, consider the likely impact of proposed development on:
- existing, or other proposed, development, and its renewable or low-carbon energy supply; and,
  - existing, or proposed, sources of renewable or low-carbon energy supply.
37. Where proposed development would prejudice renewable or low-carbon energy supplies, consideration should be given as to how the proposal could be amended to make it acceptable or, where this is not practicable, to refusing planning permission.

### **Planning conditions and obligations**

38. It is not necessary to use planning conditions to control those aspects of a building's construction and fittings that will be required to be in place to meet environmental standards set through the Building Regulations. Planning conditions or planning obligations should be used to secure the longer-term management and maintenance of those aspects of a development required to ensure compliance with the policies in this PPS.

### **Compliance and enforcement**

39. Ensuring full compliance with the planning permission granted, including conditions designed to secure implementation in line with the policies in this PPS, is important. Compliance is best secured through positive intervention and not through reactive action to received complaints. Local planning authorities in considering their approach to compliance and, when necessary, whether it is expedient to take enforcement action, should have particular regard to the highest priority placed by Government on mitigating climate change and successfully adapting to the unavoidable consequences.

## **MONITORING AND REVIEW**

40. Effective monitoring and review is essential in securing responsive action to tackle climate change. The successful implementation of mitigation and adaptation strategies depends on active stewardship regionally and locally. Where monitoring suggests that implementation is not being achieved in line with an agreed strategy it is essential to respond effectively. Annual monitoring reports should be published and both report performance and describe the action intended to correct any adjustment to implementation<sup>23</sup>.

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<sup>23</sup> See Office of the Deputy Prime Minister (2004) Planning Policy Statement 11 *Regional Spatial Strategies*; Office of the Deputy Prime Minister (2004) Planning Policy Statement 12 *Local Development Frameworks*; and; supporting practice guidance.

41. Regional and local monitoring should focus on the key actions and outcomes that underpin delivery and on contextual indicators that measure changes with direct bearing on an agreed strategy. It is essential to continue to check and update the assumptions on which the spatial strategy and component parts are built, including the reduction in emissions required to stabilise climate change. Monitoring should in particular include outcome performance against the carbon performance trajectories, or other yardsticks for identifying trends in performance, and renewables targets set in RSS<sup>24</sup>.
42. There should be clear and workable arrangements to ensure close links between the production of regional and local monitoring reports. These arrangements could usefully integrate across the range of bodies that can contribute to effective monitoring.

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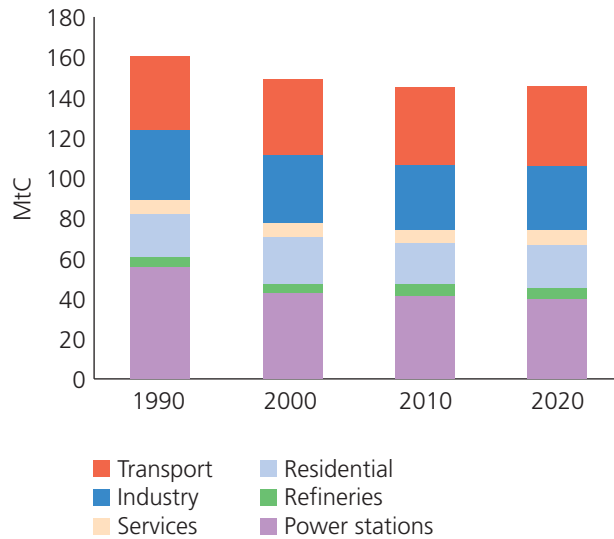
24 DTI collects renewables planning data (published on the restats website on a quarterly basis – [http://www.restats.org.uk/2010\\_target.html](http://www.restats.org.uk/2010_target.html))

## ANNEX A: GREENHOUSE GAS EMISSIONS

### Carbon dioxide

A.1 Carbon dioxide is the main greenhouse gas in the UK. It contributed around 77 per cent of the UK’s total emissions of greenhouse gases in 1990 or 161.5 MtC.

Carbon dioxide emissions by source, 1990 to 2020, MtC

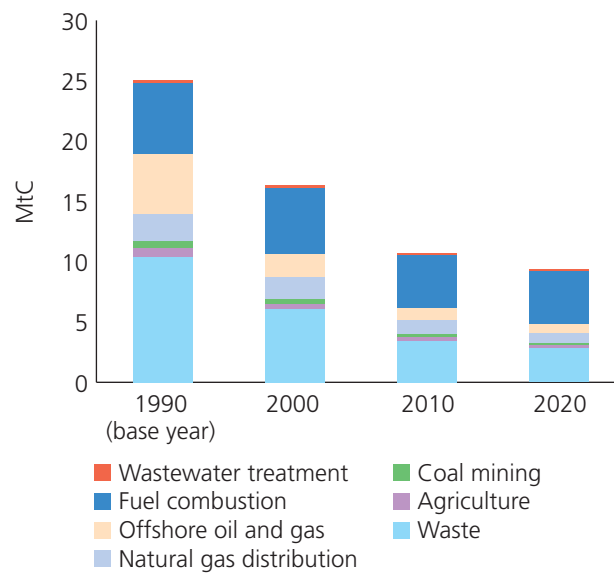


Source: Climate Change The UK Programme 2006<sup>25</sup>

## Methane

- A.2 Methane is the second most important greenhouse gas in the UK. It contributed 12 per cent of the UK's total emissions of greenhouse gases in 1990 or 25.1 MtC. Annual emissions fell by about 50 per cent below 1990 levels to 12.5 MtC in 2004.

**Methane emissions by source 1990 to 2020, MtC**

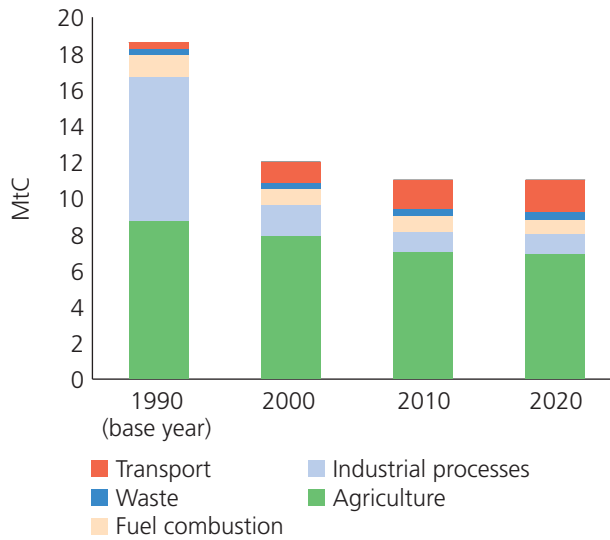


Source: Climate Change The UK Programme 2006

### Nitrous oxide

A.3 Emissions of nitrous oxide from the UK in 1990 were 18.6 MtC or 9 per cent of the UK’s total greenhouse gas emissions. Annual emissions of nitrous oxide fell by 40.4 per cent below 1990 levels to 11.1 MtC in 2004.

**Nitrous oxide emissions by source 1990 to 2020, MtC**

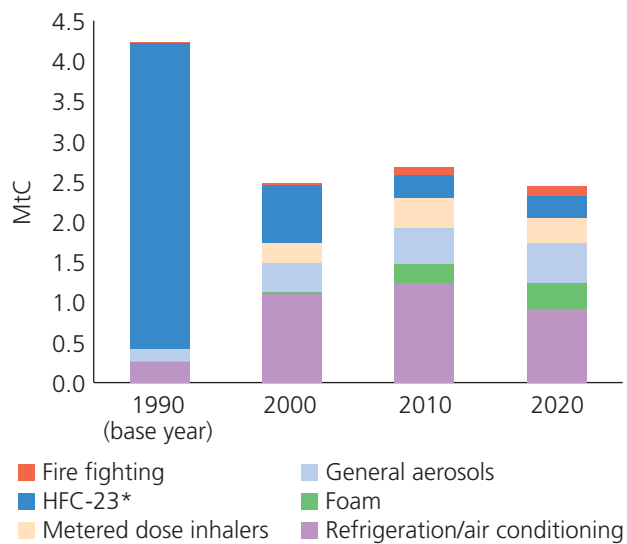


Source: Climate Change The UK Programme 2006

## Fluorinated gases

- A.4 Although emissions of the fluorinated or industrial gases are small in absolute terms, these gases generally have high global warming potentials. Emissions of all fluorinated gases from the UK in 1995 were 4.7 MtC or 2.4 per cent of UK total greenhouse gas emissions in that year.

**UK emissions of HFCs, 1995 to 2020, MtC**



Source: Climate Change The UK Programme 2006

## ANNEX B: CLIMATE CHANGE THE UK PROGRAMME 2006: SUMMARY OF ACTION

### B.1 “Internationally we will:

- work to build consensus on the scale of action needed to stabilise the climate and avoid dangerous climate change, and build on the progress made at the G8 Summit in Gleneagles and the Montreal climate change conference to strengthen the international regime;
- work with EU partners to secure agreement to further action in the EU, in particular by extending and strengthening the Emissions Trading Scheme and the Clean Development Mechanism to make them key regional and global tools for emissions reductions beyond 2012;
- in partnership with the EU, enhance our efforts to help India, China, Brazil and other large emerging countries evolve as low-carbon economies;
- work with the World Bank and the multilateral development banks to ensure that the proposed Clean Energy Investment Framework delivers significant new investment in low carbon energy sources, energy efficiency and adaptation to climate change in developing countries;
- support international collaboration and coordination to ensure the successful expansion of new technologies, through action in key areas such as product standards and research and development; and,
- help poorer developing countries to adapt to changes in climate already occurring and to make their economies more resilient to future changes.

### B.2 Domestically we will:

- report annually to Parliament on emissions, our future plans and progress on domestic climate change; and,
- set out our adaptation plan for the UK, informed by additional research on the impacts of climate change.

### B.3 In the energy supply sector we will:

- consult now on a National Allocation Plan for the second phase of the EU Emissions Trading Scheme to achieve carbon savings of between 3 and 8 MtC;
- spend £80m in the next three years to support microgeneration technologies, with the aim of encouraging manufacture at higher scale leading to lower costs;
- provide £35m over four years for the development of carbon abatement technologies, and consult on the barriers to wide-scale commercial development of carbon capture and storage (CCS) in the UK and the potential role of economic incentives in addressing those barriers;

- continue to support electricity from renewables under the Renewables Obligation and address barriers to take-up; and,
- fully consider the treatment of CHP in the UK's National Allocation Plan for the second phase of the EU Emissions Trading Scheme.

**B.4 In the business sector we will:**

- continue to use the climate change levy and associated climate change agreements to encourage businesses to improve the efficiency with which they use energy;
- maintain a strong package of support, advice and information measures to help businesses improve their energy efficiency;
- continue to make the EU Emissions Trading Scheme a central element of the business sector's contribution to our national goal; and,
- keep the current policy mix under review to ensure that it continues to represent the most effective use of policy instruments to deliver emissions reductions.

**B.5 In the transport sector we will:**

- introduce the Renewable Transport Fuel Obligation from 2008 to increase the uptake of biofuels and ensure a long term framework which promotes additional investment;
- continue to use fiscal instruments such as Vehicle Excise Duty and Company Car Tax to give incentives to purchase less polluting vehicles;
- maintain momentum in the EU to secure agreement to the inclusion of aviation in the EU Emissions Trading Scheme from 2008 or as soon as possible thereafter;
- work strongly to achieve further commitments from vehicle manufacturers to improve fuel efficiency; and,
- continue to promote carbon offsetting and lead by example to offset emissions arising from central Government air travel.

**B.6 In the domestic sector we will:**

- continue to take forward significant improvements already made and update the Building Regulations in April 2006 to raise energy standards of new build and refurbished buildings;
- introduce the Code for Sustainable Homes which will have minimum standards for energy and water efficiency at every level of the Code, with the lowest levels raised above the level of mandatory building regulations;
- building on substantial progress to date, seek to achieve substantially higher carbon savings from the Energy Efficiency Commitment in 2008-11, working with stakeholders to examine the scope to provide greater flexibility and incentive in the design of the scheme and to enable it to encourage consumers to reduce their energy demand;

- achieve 250,000 additional subsidised installations of home insulation over the next two years over and above existing commitments;
- launch a major new initiative designed to strengthen consumer demand for energy efficiency, working closely with energy suppliers and through local authorities, with funding of £20m over the next two years;
- provide more reliable consumer product information and set effective standards for energy-using products via voluntary agreements, in particular a new initiative with major retailers on consumer electronics, the Eco-design of Energy Using Products Directive and other national, EU and international policy measures and initiatives, including public procurement;
- consider how to enable consumption feedback to households via improved billing and metering, including the Budget 2006 announcement of £5m to help co-finance with energy companies a pilot study in the use of “smart” meters and associated feedback devices;
- maintain the Energy Efficiency Commitment, Warm Front and Decent Homes schemes to deliver energy efficiency measures in low income households to help meet our fuel poverty targets; and,
- continue to support the activities of the Energy Saving Trust and the Climate Change Communications Initiative to raise awareness about climate change and the action individuals can take to help tackle it.

**B.7 In the public sector and local government we will:**

- introduce a package of measures to drive additional action for local authorities to include an appropriate focus on action on climate change;
- set up a new revolving loan fund of £20m for the whole of the public sector, to finance investment in energy efficiency; and,
- introduce new strategic targets for the central government estate in summer 2006.

**B.8 In the agriculture, forestry and land management sector we will:**

- promote resource efficient farm management in order to reduce agriculture’s contribution to greenhouse gas emissions; and,
- examine the scope and feasibility of an emissions trading scheme for the agriculture and forestry sector.

**B.9 And to encourage personal action we will:**

- introduce further measures and initiatives to encourage and enable individuals to understand their role and responsibility in tackling climate change;
- continue to support the essential work of the Energy Saving Trust and Carbon Trust and other organisations that provide information and advice to individuals, businesses and local authorities;

- set out a plan for action on sustainable consumption by the end of 2006, in response to the Sustainable Consumption Round Table report due in Spring 2006;
- establish a new online information service (working title: Environment Direct) to provide information on the environmental impact of a range of everyday products and services, and practical advice on sustainable lifestyle choices;
- provide up to £4m over three years to roll out a new package of measures to help thousands of community groups across England to take action on sustainable development, including climate change; and,
- enhance our new Climate Change Communications Initiative, to change public attitudes toward climate change, above all at local, grass roots and regional level.’

## ANNEX C: THE ENERGY CHALLENGE ENERGY REVIEW REPORT 2006: NEXT STEPS

### C.1 “Carbon Emissions Reductions

*Commitment to a carbon price:* the Government is committed to there being a continuing carbon price signal which investors take into account when making decisions. This is particularly important given the scale of new investment required in UK electricity generation capacity. The EU ETS is here to stay beyond 2012 and will remain the key mechanism for providing this signal. The Government will continue to work with its international partners to strengthen the EU ETS to make it more effective. We will keep open the option of further measures to reinforce the operation of the EU ETS in the UK should this be necessary to provide greater certainty to investors.

### C.2 Energy Efficiency

*Improved Billing:* we will be consulting with industry in autumn 2006, on providing historic information on electricity and gas bills and will consider further improvements.

*UK Energy Performance Commitment (EPC):* we will put forward a proposal for a mandatory emissions trading scheme, alongside other options for achieving our carbon reduction aims in the large non-energy intensive sector, and will invite views later in 2006.

*Code for Sustainable Homes:* we will announce the 5 Levels for the Code for Sustainable Homes later this year. All government-funded housing will be required to reach at least Level 3 – significantly more energy efficient than current Building Regulations.

*Design for Manufacture Competition:* English Partnerships (EP) will announce details of the second phase of the Design for Manufacture competition, using six sites across the country. EP will challenge the industry to build low cost, low-carbon and zero-carbon homes, looking at the whole developments.

*We will conduct a feasibility study for delivering a low carbon Thames Gateway over the next ten years.* We will explore the scope for the Thames Gateway to become a model site for developing emerging technologies, and eventually moving towards carbon-neutrality.

*Review of Permitted Development Rights for Microgeneration:* Department for Communities and Local Government will consult on changes to the General Permitted Development Order in the autumn. We aim to ensure that, so far as possible, all microgeneration is exempted from the need for a planning application.

*Energy Efficiency Commitment:* we will consult this summer on whether to extend the range of measures allowed under the third phase of the Energy Efficiency Commitment, considering microgeneration and measures that affect consumer behaviour.

### C.3 Distributed Energy

*Review of incentives and barriers:* the Government and Ofgem will lead a comprehensive review of the incentives and barriers that impact on distributed electricity generation. This Review will report in the first half of 2007.

*Foresight Project:* the Government will undertake a Foresight project on sustainable energy management and the built environment. The project would consider the potential future role and relationship of centralised and decentralised energy generation in delivering the UK's long-term energy goals. In order to do this it would look at scientific, technical and economic issues including: future systems for generating heat and power that are low carbon and distributed; transmission and distribution networks; and demand management. Demand management would range from reducing use of energy in buildings through materials and intelligence, to exploring behavioural, attitudinal and information barriers to changes in behaviour. The project would report its findings in autumn 2008.

### C.4 Oil, Gas and Coal

*New arrangements for providing improved information and projections for energy supply:* we will introduce new arrangements for the provision of a forward-looking energy market information and analysis pertaining to security of supply, led from the DTI and working with key energy market players, to bring together in one place relevant data and analysis on adequacy of future energy supplies, presenting long-term scenarios of future supply and demand, and identifying in a timely fashion areas where policy may need to be reviewed.

*A Coal Forum:* the Government will set up a Coal Forum to bring together producers, coal-fired generators and other interested parties to help them find solutions to secure the long-term future of coal-fired generation and UK coal production.

*Gas security of supply:* the Government will consult in autumn 2006 with both industry and consumers on the effectiveness of current gas security of supply arrangements, their robustness as we move to higher dependence on gas imports, and if new measures are needed to strengthen them.

*Investment in UK oil and gas production:* the Government will work with industry to boost investment in the UK Continental Shelf (UKCS) over the next ten to fifteen years.

### C.5 Electricity Generation Renewables

*Renewables Obligation (RO):* we are proposing to extend the level of the Renewables Obligation up to 20 per cent, when justified by growth in renewables; and consult on 'banding' the RO to give more support to emerging technologies in autumn 2006. If, following this, the RO is to be banded, then we will consult further on the implementation.

We will also be taking forward planning proposals that will impact on largescale renewables projects (see "efficient and streamlined" inquiries section below), and will be monitoring the progress being made by Ofgem and the transmission companies in resolving grid-related obstacles to the growth in renewables.

*Environmental Transformation Fund:* a new fund will be established to support renewable energy and other non-nuclear low carbon technologies. Details will be announced in the 2007 Comprehensive Spending Review.

**C.6 Cleaner coal and carbon capture and storage**

*Carbon Abatement Technology strategy:* we will formally launch the first call for proposals worth £10m under the strategy in autumn 2006, with a focus on the pre-commercial demonstration of key components and systems to support carbon abatement technologies.

*Carbon Capture and Storage (CCS):* the next step would be a commercial demonstration of CCS, if it proved to be cost-effective. Following HM Treasury's recent consultation on CCS, we will do more work on the potential costs of such demonstration projects. A further statement will be made in the Pre-Budget Report.

*Legal & Regulatory Framework:* the Government will continue urgent work to provide the legal and regulatory basis for CCS in the UK, and to enable CCS to benefit from the EU Emissions Trading Scheme.

**C.7 Nuclear**

*Proposed policy framework for new nuclear power:* we are setting out a proposed framework for the consideration of the relevant issues and the context in which planning inquiries should be held. This framework would be set out in a White Paper to be published around the turn of the year. To support preparation of this White Paper, the Government is consulting on the proposals outlined in Annex A of this document. The Health & Safety Executive and the Nuclear Installations Inspectorate plan to issue guidance towards the end of 2006.

**C.8 Planning for large scale energy infrastructure  
 Strategic context**

*Renewable generation:* the Government will ensure renewables are at the heart of the forthcoming Planning Policy Statement (PPS) on Climate Change. We will consult on the draft Planning Policy Statement around the turn of the year. The new PPS will make clear that the location and design of new developments should strongly promote the reduction of carbon emissions.

*CHP Guidance:* the Government will publish new guidance on Combined Heat & Power, later in 2006, for applications under section 36 of the Electricity Act. It will provide more information on developers' obligations to give full consideration of opportunities to develop CHP.

*Improved planning applications:* the Government will consult on guidance for section 36 Electricity Act applications around the end of 2006, including information on co-operation between developers and the transmission companies about joining-up on applications.

*Nuclear generation:* the Government is launching a consultation on a policy framework for new nuclear build, which will lead to the Energy White Paper around the turn of the year.

#### C.9 **Efficient and Streamlined Inquiries**

*New inquiry rules:* the Government will introduce new inquiry rules for applications under the Electricity Act. We will consult in autumn 2006 with a view to introducing new inquiry rules in spring 2007.

*Simplification for gas infrastructure:* the Government will consult, in autumn 2006, on options for the streamlining and simplification of the planning process for gas supply infrastructure projects.

*Predictable timings for final decision-making:* the Government will undertake further work on options to ensure appropriate and predictable timings for decisions on applications for energy infrastructure. An announcement will be made later this year in the light of other cross-Whitehall work on planning.

#### C.10 **Transport**

*Renewable Transport Fuel Obligation:* the Government will be consulting on enhancements to the RTFO in early 2007.

*EU car fuel efficiency Voluntary Agreements:* we will consult with industry on options to replace the current Voluntary Agreements when they expire in 2008/09. We will explore all options including mandatory measures with trading.

*Surface transport in the EU Emissions Trading Scheme (EU ETS):* the Government will continue to participate in the European Commission's Review of the EU ETS and press for serious consideration of the inclusion of surface transport."

## ANNEX D: ESTABLISHING REGIONAL TRAJECTORIES FOR CARBON EMISSIONS

- D.1 Regional planning bodies when including in RSS trajectories for the expected carbon performance of new residential and commercial development should:
- express the trajectories as:
    - (i) the anticipated carbon emission rate as an average over time for new dwellings;
    - (ii) the anticipated carbon emission rate as an average over time for new commercial floorspace<sup>26</sup>;
  - derive the anticipated carbon emission rates from a consideration of the expected carbon performance of new residential and commercial development and in doing so take into account factors such as:
    - (i) the expected energy performance requirements for new buildings applicable through Building Regulations<sup>27</sup>;
    - (ii) the likely contribution of decentralised energy supply from renewable and low-carbon energy to supplying new development; and,
    - (iii) the likely transport energy demands of the planned provision of new development and its spatial distribution.
  - in assembling the trajectories identify, quantify (but avoid spurious precision) and report the main contributions from their spatial strategy to the trajectories, and in doing so reflect the approach set out in the supporting practice guidance;
  - bring together concisely in a risks register supporting the RSS known threats to delivering the trajectories and the proposed mitigation of identified risks; and,
  - in setting out the trajectories, allow for comparison with prevailing carbon emission rates for new development at the start of the time period covered by the RSS.

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<sup>26</sup> Offices and retail.

<sup>27</sup> Identified in advance by the Secretary of State and approved in the form of carbon emission targets.

## ANNEX E: APPLICABLE DEFINITIONS AND GLOSSARY FOR THE PURPOSES OF THIS PPS

### E.1 **Adaptation**

Adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities.

### E.2 **Carbon capture**

Removal of carbon dioxide from fossil fuels either before or after combustion.

### E.3 **Carbon emissions**

Carbon is used as a shorthand unit derived from carbon dioxide (1 tonne of CO<sub>2</sub> or CO<sub>2</sub>e is equivalent to 12/44 tonne of carbon).

### E.4 **Carbon sinks**

Atmospheric carbon in the form of carbon dioxide is captured and stored in living (trees and other green vegetation) or non-living reservoirs (soil, geological formations, oceans, wood products). Land uses which absorb and store carbon over long periods of time ('carbon sinks') may help to offset carbon dioxide emissions, at least in the short to medium term.

### E.5 **Carbon storage**

The long-term storage of carbon or carbon dioxide in the forests, soils, ocean, or underground in depleted oil and gas reservoirs, coal seams, and saline aquifers. Also referred to as engineered carbon sequestration.

### E.6 **Climate change scenario**

A coherent and internally consistent description of the *change* in climate by a certain time in the future, using a specific modelling technique and under specific assumptions about the growth of greenhouse gas and other emissions and about other factors that may influence climate in the future.

### E.7 **Combined Heat and Power/Combined Cooling Heat and Power (CHP/CCHP)**

The simultaneous generation of usable heat and power (usually electricity) in a single process, thereby discarding less wasted heat and putting to use heat that would normally be wasted to the atmosphere, rivers or seas. CHP is an efficient form of decentralised energy supply providing heating and electricity at the same time. CHP's overall fuel efficiency is around 70-90 per cent of the input fuel – much better than most power stations which are only up to around 40-50 per cent efficient.

**E.8 Decentralised energy supply**

Energy supply from local renewable and low-carbon sources usually on a relatively small scale and including electricity generation that is connected to the distribution networks (distributed energy) rather than directly to the national transmission systems. Decentralised energy is a broad term used to denote a diverse range of technologies which can serve an individual building, development or wider community.

**E.9 Distribution network**

The network for electricity distribution at voltages below that of the transmission network.

**E.10 Emissions**

The release of greenhouse gases and aerosols into the atmosphere.

**E.11 Energy efficiency**

Making the best or most efficient use of energy in order to achieve a given output of goods or services, and of comfort and convenience.

**E.12 Greenhouse gas**

A gas which ‘traps’ energy radiated by the Earth within the atmosphere. Carbon dioxide (CO<sub>2</sub>) is the most important greenhouse gas being emitted by humans.

**E.13 Mitigation**

Action taken to reduce the impact of human activity on the climate system, primarily through reducing greenhouse gas emissions.

**E.14 Renewable and low-carbon energy**

Renewable energy covers those energy flows that occur naturally and repeatedly in the environment – from the wind, the fall of water, the movement of the oceans, from the sun and also from biomass. Low carbon technologies are those that can help reduce carbon emissions. Renewable and low-carbon energy supplies include, but not exclusively, those from biomass and energy crops; CHP/CCHP (and micro-CHP); energy-from-waste; ground source heating and cooling; hydro; solar thermal and photovoltaic generation; wind generation.

**E.15 Significant proportion**

Significant proportion in “significant proportion of the energy supply of substantial new development is gained on-site and renewably and/or from a decentralised, renewable or low-carbon, energy supply” is to be defined through a local planning authority’s development plan document. In the period before “a significant proportion” is tested and defined through the preparation and adoption of a development plan document an interim standard of 10 per cent should be applied. For consistency, ‘significant proportion of the energy supply’ should be interpreted through carbon emissions rather than energy usage.

**E.16 Substantial new development**

Substantial new development is proposed new development with buildings, individually or in aggregate, with a total useful floor area over 1000m<sup>2</sup>, or similar when defined through a development plan document.

**E.17 Sustainable urban drainage systems**

An alternative approach from the traditional ways of managing runoff from buildings and hardstanding. They can reduce the total amount, flow and rate of surface water that runs directly to rivers through stormwater systems.

**E.18 Urban cooling**

Moderating high summer temperatures, through for example the layout of urban open space and shading from trees. Climate change will exacerbate the temperature gradient that rises from the rural fringe and peaks in city centres. This is described as ‘the urban heat island’ because the warmer urban air lies in a ‘sea’ of cooler rural air.

**E.19 Useful floor area**

The useful floor area of a building is measured within its external walls, or similar when defined in a development plan document.

**E.20 Windfall sites**

Windfall sites are sites that have not been identified as available for development through the local planning process.

## Part 3 Draft Framework of Practice Guide



## Part 3 Draft Framework of Practice Guide

### INTRODUCTION

1. The purpose of the practice guide will be to assist with the successful application and implementation of *Planning and Climate Change*.
2. It is anticipated that the practice guide will be organised in two parts:
  - **Part 1: Implementing policy and procedures; and**
  - **Part 2: Technical and good practice guidance.**
3. Given the overarching and synoptic nature of the PPS, which stresses that climate change considerations need to be integrated with almost all areas of planning practice, it is the intention that the guide should provide clear signposts and links to the wide range of up to date practice guidance which already exists for other PPSs.
4. International and national legislation and practice in mitigating and adapting to climate change is evolving rapidly and will continue to do so. The practice guide will be designed to be easily updated to incorporate new requirements and good practice, probably through its development as a web-based tool. It is likely to be made available in electronic as well as paper formats.
5. The techniques and practices which are highlighted will be selected to address, in particular, two challenges which must be faced in dealing with climate change and planning:
  - the need for policy and practice to embrace future improvements in standards and targets; and
  - the rapid changes taking place in both the technologies and the cost effectiveness of those technologies.
6. The guide will take forward the work already done in the Glossary to the PPS (**Annex E**) in defining more clearly key terms and concepts relevant to climate change policy and practice.

### PART 1: IMPLEMENTING POLICY AND PROCEDURES

#### General

7. It will highlight the important role of regional spatial strategies and local development documents in securing the Government's ambition for carbon neutral development. It will set out in diagrammatic form the key characteristics and measures that would be expected to contribute to zero carbon development.

8. The practice guide will give guidance on the process and responsibilities of implementing planning policy on climate change. The guidance on the plan-making process will be based upon existing guidance in PPS11: *Regional Spatial Strategies* and PPS12: *Local Development Frameworks*.
9. Detailed explanations of specific tasks such as data collection, producing regional trajectories for carbon emissions, monitoring and review will be provided.

### **Common policy considerations**

10. This section could develop guidance in the following areas, directly and by identifying other key sources:
  - outline of key roles, responsibilities, linkages and outputs;
  - consultation and stakeholder involvement;
  - links with other regional strategies such as the regional economic strategy, regional sustainable development framework and the regional housing strategy;
  - applying sustainability appraisal; and
  - principles of monitoring performance and review.

### **Available data sources**

11. Brief details of published or other available data relevant to monitoring climate change. The data sources will detail the following:
  - data source;
  - availability; and
  - usefulness

### **Regional Spatial Strategies**

12. Guidance on the general process of producing regional spatial strategies is provided in PPS11. Additional guidance could be provided on the following topics with specific relevance to climate change:
  - integrating climate change considerations into the regional spatial strategy: consideration of how the region's activities contribute to climate change and assessment of the region's vulnerability to climate change;
  - optimising the location of the region's areas of growth and substantial new development: factors to be taken into account such as patterns of urban growth, location of major generators of travel and potential for decentralised low carbon or renewable energy supply;

- setting the region’s renewable energy targets: establishing targets in line with PPS22 and consistent with national targets;
- delivering a low-carbon or zero carbon vision: reinforcing the principles of the regional transport strategy, promoting renewable and low-carbon sources of energy, including decentralised sources, helping to secure carbon sinks, developing carbon capture and storage and encouraging low-carbon technology and business sectors;
- adapting to climate change: identifying spatial patterns of development that take account of sea levels and coastline changes, flood risk, maintaining biodiversity and reducing the heat island effect;
- managing carbon performance and developing regional carbon trajectories: yardsticks for identifying trends in carbon emissions, determining the scope of carbon emissions, collecting data to determine the starting point, creating emissions inventories, calculating emissions projections and linkages to national and regional monitoring requirements;
- co-ordination with other regions: securing effective integration on cross border issues;
- sub-regional and urban area co-ordination: securing effective integration of policy;
- consultation, advice and stakeholder involvement: membership and role of the regional climate change advisory group, plus meaningful involvement of business and other stakeholders; and
- monitoring performance and review: developing appropriate indicators to be monitored and reported annually. Identifying potential sources of data and methods of measurement.

### **Development Plan Documents**

13. Guidance on the general process of producing local development frameworks is provided in PPS12 and the companion document *Creating Local Development Frameworks: A Companion Guide to PPS12*. Additional guidance could be provided on the following topics with specific relevance to climate change:
  - interpreting national and regional targets to generate significant local targets: delivery through the Development Plan Documents;
  - urban area co-ordination: securing effective integration of policy;
  - identifying land for development: assessing development location, accessibility by means other than the car, capacity of existing and potential infrastructure, potential for renewable and low-carbon energy supply, opportunities for urban cooling, environmental risks and vulnerability associated with climate change impacts;
  - how to search for renewable and low carbon energy solutions: existing and new opportunities, assessing the renewable and low-carbon energy potential of development and promoting renewable and low-carbon decentralised energy supply;

- ensuring adaptation to climate change: identifying spatial patterns of development that take account of flood risk, sustaining biodiversity and reducing the heat island effect;
- dealing with small sites and leveraging up performance of the existing stock: measures for improving energy performance of existing buildings and areas;
- energy supply: setting the proportion of the energy supply of substantial new development to be gained on-site and renewably and/or from a decentralised, renewable or low-carbon, energy supply;
- environmental performance of buildings and the Building Regulations: local justification for advancement of standards;
- environmental performance of proposed development: use of landform, layout, building orientation, and landscaping, provision of open space, sustainable waste management, opportunities for sustainable transport; and
- consultation, advice and stakeholder involvement: of business and other stakeholders and encouraging community involvement in the process.

### **Local planning guidance**

14. In addition to the policy framework the guidance could contain advice on specific tools to aid implementation:
  - use of local development orders (LDO): in relation to energy networks and generation, plus use of permitted development rights and site specific LDOs;
  - use of design codes;
  - Area Action Plans: identifying locations and priorities for the preparation of Area Action Plans and advice on content;
  - supplementary planning documents: advice on appropriate use and coverage of supplementary planning documents; and
  - monitoring performance and review: developing appropriate indicators to be monitored and reported annually and integration with regional monitoring arrangements.

### **Determining/preparing planning applications**

15. Guidance could be provided in the following areas:
  - designing for environmental performance: including assessing the delivery of measures for reducing the carbon impact of proposals and improving their resistance to climate change;
  - interface with Building Regulations: ensuring integrated and timely decisions;

- design guides and codes: advice on appropriate coverage of design guides, such as compliance with carbon emission rates through the Building Regulations, plus contributions from decentralised energy sources and on-site renewable energy;
- use of planning conditions and obligations: appropriate use to secure long-term management and maintenance of aspects of development required to mitigate climate change;
- assessing the effectiveness of alternative or competing measures: factors to consider in comparing alternative measures;
- assessing the wider consequences of proposals: the factors to consider in determining wider scale impacts of a proposal on biodiversity, flooding and the heat island effect; and
- enforcement and monitoring compliance: criteria and systems to monitor delivery and effectiveness and ensure planning obligations are delivered.

## PART 2: TECHNICAL AND GOOD PRACTICE GUIDANCE

### General

16. The guidance in this part will derive from Part 1 of the practice guidance and *Planning and Climate Change*. It is likely to be a series of explanatory notes and references to other source documents.

### Explanatory notes

17. Each explanatory note will detail the following:
  - the issue dealt with by the explanatory note and the paragraph in the PPS to which it applies;
  - existing and emerging good practice; and
  - full references to quoted sources.

### References to other source documents

18. Cross references will be made to specific source documents, which contain existing information and advice and could include the following:
  - European and national legislation;
  - national strategies, such as *The UK Government Sustainable Development Strategy*, *Climate Change the UK Programme 2006* and *The Energy Challenge: The Energy Review Report 2006*;

- other national planning policy guidance, such as:
  - PPS1: Delivering Sustainable Development,*
  - PPS11: Regional Spatial Strategies,*
  - PPS12: Local Development Frameworks,*
  - PPG13: Transport,*
  - PPS22: Renewable Energy,*
  - PPS25: Development and Flood Risk;* and
- other good practice guidance, for example:
  - Creating LDF's: A Companion Guide to PPS12;*
  - Regional Spatial Strategy Monitoring: A Good Practice Guide;*
  - Local Development Framework Monitoring: A Good Practice Guide;*
  - Sustainability Appraisal of Regional Spatial Strategies and Local Development Documents;*
  - and the Commission for Architecture and the Built Environment's *Design and Access Statements: how to write, read and use them.*

## Part 4 Partial Regulatory Impact Assessment



## Part 4 Partial Regulatory Impact Assessment<sup>1</sup>

### PROPOSED MEASURE AND PURPOSE OF THIS REPORT

1. This Partial Regulatory Impact Assessment (PRIA) has been prepared to assess the proposed Planning Policy Statement: *Planning and Climate Change*.
2. *Planning and Climate Change* is intended to focus, reinforce and clarify the role of the spatial planning system in meeting the objectives of UK Government's Climate Change Programme and energy policies. In particular, the PPS aims to ensure that developments being brought forward take proper account of carbon considerations through their location, their physical form and layout and the use of renewable and low-carbon energy. The PPS also aims to ensure that spatial planning shapes sustainable communities resilient to the climate change now accepted as inevitable, including more extreme weather events such as hotter and drier summers, flooding and rising sea levels leading to coastal realignment.
3. The purpose of the PRIA is to inform stakeholders about the likely impacts of the PPS. At this stage the PRIA has been prepared on the draft PPS, which will be revised in the light of comments received during public consultation. When the PPS has been revised to take account of the results of the public consultation the PRIA will be revised and a full Regulatory Impact Assessment (RIA) will be prepared.

### DESCRIPTION OF KEY CONSTRAINTS

4. The preparation of any PRIA is subject to a number of constraints. In the context of *Planning and Climate Change*, the following constraints should be noted:
  - although there is an increasing body of scientific and economic research on the impacts of global warming, the costs of climate change remain uncertain. Whilst it is therefore difficult to determine the benefits of reducing carbon emissions with any precision, it is possible to estimate the benefits on the basis of the social cost of carbon and the trading value of carbon;
  - the PPS complements a wide range of other government initiatives to address the challenges of climate change, including other initiatives within the planning system. Therefore, while the potential impacts of the PPS can be identified, it is not possible to separate out the additional impacts of this PPS from the effects of other planning policies or Government measures intended to address climate change. The possible quantitative and qualitative impacts identified in this PRIA must therefore be viewed as indicative.

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<sup>1</sup> This PRIA has been informed by research undertaken for the Department by Environmental Resources Management Ltd and Faber Maunsell.

- several of the markets for technologies that may be deployed by developers in response to the PPS are not mature and have uncertain costs, leading to uncertainties about the costs of carbon abatement. As the markets mature it is anticipated that costs will fall and greater certainty will be available;
- the general problems normally encountered with forecasting economic activity also apply to this PPS. Therefore, it is not possible to identify how the PPS will affect the carbon performance of new development with any degree of accuracy; and
- the consultation on the draft PPS will be used to gather further quantitative evidence where available. Further elaboration of the impacts assessed within this PRIA will be presented in the full RIA.

## THE SCOPE OF PLANNING POLICY STATEMENTS

5. Planning Policy Statements (PPS) set out the Government's national policies on different aspects of land use planning in England. It should be noted that PPSs have a different, but at the same time complementary focus to Building Regulations. Broadly speaking:
  - a PPS explains statutory provisions and provides guidance on *spatial planning* matters, including matters such as the allocation and location of developable land, key issues that developments must address (eg transport, flood defence), and urban design issues including the appearance of the built environment (eg the external appearance of buildings); and
  - the Building Regulations set baseline mandatory national standards for the health, welfare, safety and convenience of people in and around buildings, for the accessibility of those buildings, and for the reasonable conservation of fuel and power used by those buildings.
6. It is therefore important to note that the planning system would *not* normally be the mechanism by which developers were required to, for example, install double glazing or higher minimum standards of thermal insulation in new housing developments – that would be a matter for the Building Regulations. Planning authorities should engage constructively and imaginatively with developers to encourage the delivery of sustainable buildings. The planning system's particular contributions to the performance of buildings, including on encouraging renewable and low-carbon energy supply, are set out in the PPS.
7. It is also important to note that the efficiency of energy using *appliances* (such as gas and electrical appliances) within buildings is, in general, a matter for product standards, and falls outside the scope of both the planning and Building Regulations regimes.

## OBJECTIVE AND INTENDED EFFECT OF MEASURE

### Objective of Planning and Climate Change

8. *Planning and Climate Change* sets out how the spatial planning system should contribute to reducing carbon emissions (mitigation) arising from built development. The PPS also provides guidance on how the planning regime should address the climate change now accepted as inevitable, such as sea level rise and higher temperatures (adaptation).
9. The PPS' key planning objectives expect that regional planning bodies and all planning authorities should prepare and deliver spatial strategies that:
  - make a full contribution to delivering the Government's Climate Change Programme and energy policies, and in doing so contribute to global sustainability;
  - in enabling the provision of new homes, jobs, services and infrastructure and shaping the places where people live and work, secure the highest viable standards of resource and energy efficiency and reduction in carbon emissions;
  - deliver patterns of urban growth that help secure the fullest possible use of sustainable transport for moving freight, public transport, cycling and walking; and, overall, reduce the need to travel, especially by car;
  - secure new development and shape places resilient to the effects of climate change in ways consistent with social cohesion and inclusion;
  - sustain biodiversity, and in doing so recognise that the distribution of habitats and species will be affected by climate change;
  - reflect the development needs and interests of communities and enable them to contribute effectively to tackling climate change; and
  - respond to the concerns of business and encourage competitiveness and technological innovation.
10. It should be noted that the PPS does not place *limits* on development. Therefore, there is no need to assess the costs of forgone development within this PRIA as the PPS will not reduce the *amount* of development.

## THE NEED FOR THE SPATIAL PLANNING SYSTEM TO ADDRESS CLIMATE CHANGE

### Overview of climate change issue

#### CLIMATE CHANGE IS HAPPENING AND IS IMPACTING THE UK

11. The United Kingdom Government has taken a leadership stance in acknowledging the scientific consensus that human activity is changing the world's climate. The evidence that climate change is happening, and that man-made emissions are its main cause, is compelling. If climate change deepens and intensifies, as it will in the absence of urgent and major policy responses in the UK and globally, there will increasingly be significant, and possibly irreversible, changes to climate and the biophysical environment. For the UK, this could mean more extreme weather events, including hotter and drier summers, flooding, and rising sea-levels leading to coastal realignment. There will be permanent changes in the natural environment but also, and increasingly, substantial costs to the national economy. It is quite likely that the impacts of climate change will be felt first, and disproportionately so, by the most vulnerable in society.

#### THE COSTS OF CLIMATE CHANGE

12. The costs to the national economy from climate change are likely to be considerable. Steps taken at both international and national levels to reduce greenhouse gas emissions will also entail some costs. These will include the costs of developing and using low-emissions and high efficiency technologies and also the costs to consumers of switching expenditure from emissions-intensive to low-emission goods and services.
13. The costs of mitigating climate change will differ depending upon which technologies and policy choices are used. A range of low-carbon technologies is already available, although many are currently more expensive than fossil-fuel alternatives. Although cleaner and more efficient power, heat and transport technologies are needed to make radical emission cuts in the medium to long-term, their future costs remain uncertain. However, past experience suggests that efficiency is likely to increase and average costs fall with greater rates of deployment (leading to savings from mass production) and ongoing research and development.
14. A wide-ranging review of the economics of climate change was announced by HM Treasury in July 2005. The Stern review, headed by Sir Nicholas Stern, is based upon extensive and wide-ranging consultation using existing and specially commissioned research, and was published on 30 October 2006<sup>2</sup>. The terms of reference included a requirement to examine the evidence on the economic consequences of climate change as well as the costs and benefits of actions taken to reduce greenhouse gas emissions.

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<sup>2</sup> *The Stern Review on the Economics of Climate Change*, HM Treasury. Available at: [www.hm-treasury.gov.uk/independent\\_reviews/stern\\_review\\_economics\\_climate\\_change/stern\\_review\\_report.cfm](http://www.hm-treasury.gov.uk/independent_reviews/stern_review_economics_climate_change/stern_review_report.cfm)

15. The central conclusion of the Stern Review is that *the benefits of strong and early action far outweigh the economic costs of not acting*. The Review estimates that if actions are not taken to combat climate change, the overall costs and risks from climate change impacts will be equivalent to losing at least five per cent of global GDP each year, now and for the foreseeable future. If a wider range of risks and impacts is taken into account, the estimates of damage could rise to 20 per cent of GDP or more. In contrast, the costs of the action required to reduce emissions to a level which would avoid the worst impacts of climate change can be limited to around 1 per cent of global GDP each year<sup>3</sup>.
16. The Review notes that the costs of taking the necessary action could be even lower than this if there are major gains in efficiency, or if strong co-benefits are measured. Action on climate change will also create significant business opportunities, as new markets are created in low-carbon energy technologies and other low-carbon goods and services. The costs will be higher if innovation in low-carbon technologies is slower than expected, or if cost-effective policy making is not forthcoming. A key message of the Stern Review is that “the costs of stabilising the climate are significant but manageable and that delay would be dangerous and much more costly”.

#### THE UK CLIMATE CHANGE PROGRAMME

17. *The UK Climate Change Programme*, published by the Government in March 2006, sets out actions that the Government is taking or proposing to reduce the UK’s contribution to climate change, and to adapt to its effects.
18. The Programme acknowledges that climate change is the greatest long-term challenge facing the world today. Addressing climate change is therefore the Government’s principal concern for sustainable development.
19. The UK has already taken significant steps to meet this challenge. The UK is on track to meet its commitment under the Kyoto Protocol to reduce emissions of greenhouse gases by 12.5 per cent below 1990 levels by 2008-2012, and has set a more stringent domestic target to reduce carbon dioxide emissions by 20 per cent below 1990 levels by 2010 and, in the long-term, by 60 per cent by 2050.
20. The UK has implemented a wide range of policies and regulations to address its contribution to climate change – these are discussed in greater detail in the options analysis below.

#### THE ENERGY REVIEW

21. *The Energy Review*, concluded by the Government in July 2006, announced a far-reaching range of proposals designed to reinforce the UK’s long term policy for addressing the challenge of climate change and energy security issues. The Energy Review contains a series of measures to promote the growth of renewable energy and to bring about more decentralised energy generation. It also made a commitment to aggressive implementation of the Government’s Microgeneration Strategy to remove barriers to household renewables.

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<sup>3</sup> The risks of the worst impacts of climate change can be substantially reduced if greenhouse gas levels in the atmosphere can be stabilised between 450 and 550ppm CO<sub>2</sub> equivalent (CO<sub>2</sub>e). The current level is 430ppm CO<sub>2</sub>e today, and it is rising at more than 2ppm per year (The Stern Review, 2006).

### **Rationale for government intervention**

22. The spatial planning system can make an important contribution to reducing carbon emissions and meeting the UK's targets on climate change. Contributions can be made, for example, by directly influencing energy use and emissions through, for example, delivering patterns of urban growth which reduce the need to travel; by shaping sustainable communities that are resilient to the climate change now accepted as inevitable; and through creating an attractive environment for innovation and for the private sector to invest in renewable and low-carbon technologies and supporting infrastructure.

## **OPTIONS ANALYSIS**

### **Options to address the threat of climate change**

23. A wide range of options exists to address the threat of climate change. The UK Government has already implemented a variety of actions as outlined in the UK Climate Change Programme. This PPS is, therefore, part of an integrated suite of Government responses to climate change and needs to be seen in this context. Specifically, the PPS is designed to address a particular aspect of the Government's climate change objectives and is not intended to be an all-encompassing response (see Annex A for an assessment of other potential options for addressing the challenge of climate change).
24. Other major policy responses to climate change implemented by the Government include:
  - incentivising end user energy efficiency through the Climate Change Levy and Climate Change Agreements;
  - measures to reduce carbon emissions from the electricity sector, including the Renewables Obligations;
  - industrial, commercial and domestic energy efficiency initiatives, including the Building Regulations, Enhanced Capital Allowances, the Energy Savings Trust, the Carbon Trust, the Energy Efficiency Commitment and the Warm Front and Decent Homes schemes to deliver energy efficiency measures in low income households;
  - introduction of the EU Emissions Trading Scheme (ETS);
  - transport policy, including the use of fiscal instruments such as the Vehicle Excise Duty, the Air Passenger Duty and fuel taxes, and the promotion of public transport, walking and cycling; and
  - eco-labelling and energy efficiency standards for a range of consumer products.
25. Many of these measures have been undertaken in partnership with the European Union, whilst others are UK focused initiatives. In addition, the Government has implemented a variety of planning policies, as well as Building Regulations, that address climate change issues (see Table 1 for a summary).

**Table 1: Planning Policy for Climate Change**

Planning Policy Statement	Policy/Guidance with an Impact on Climate Change
PPS1: Delivering Sustainable Development	<ul style="list-style-type: none"> <li>• Address causes and potential impacts of climate change.</li> <li>• Reduce energy use.</li> <li>• Reduce emissions.</li> <li>• Promote renewable energy use.</li> <li>• Location and design of development.</li> </ul>
PPS3: Housing Provision	<ul style="list-style-type: none"> <li>• Delivery of homes that are well-designed.</li> <li>• Making the best use of land.</li> <li>• Making use of new building technologies to deliver sustainable development.</li> </ul>
PPG 4: Industrial, commercial development and small firms PPS6: Planning for Town Centres	<ul style="list-style-type: none"> <li>• Reduce the need to travel.</li> <li>• Location of development.</li> <li>• Reduce the need to travel.</li> <li>• Encourage use of public/alternative transport.</li> <li>• Facilitate multi-purpose journeys.</li> </ul>
PPS7: Sustainable Development in Rural Areas	<ul style="list-style-type: none"> <li>• Planning applications should recognise the need to protect natural resources.</li> <li>• Provide for sensitive exploitation of renewable energy sources.</li> </ul>
PPS9: Biodiversity and Geological Conservation	<ul style="list-style-type: none"> <li>• Account for climate change on distribution of habitats and species, and geomorphologic processes and features.</li> </ul>
PPS10: Planning for Sustainable Waste Management	<ul style="list-style-type: none"> <li>• Encouraging more sustainable waste management which respects the waste hierarchy (reduce, re-use, recycle, energy recovery, disposal).</li> </ul>
PPS11: Regional Spatial Strategies	<ul style="list-style-type: none"> <li>• Addressing climate change and energy in regional spatial strategies.</li> </ul>
PPS12: Local Development Frameworks	<ul style="list-style-type: none"> <li>• Act on a precautionary basis to reduce the emissions that cause climate change and to prepare for its impacts.</li> </ul>
PPG13: Transport	<ul style="list-style-type: none"> <li>• Reduce the need for travel, especially by car, by influencing the location of development, fostering development which encourages walking, cycling or public transport etc.</li> </ul>
PPG20: Coastal Planning PPS22: Renewable Energy	<ul style="list-style-type: none"> <li>• Identify areas likely to be at risk from flooding.</li> <li>• Increased development of renewable energy resources through regional spatial strategies and local development documents.</li> </ul>
PPS23: Planning and Pollution Control	<ul style="list-style-type: none"> <li>• Planning should reduce greenhouse gas emissions and take account of potential effects of climate change where possible.</li> </ul>
PPS25: Development and Flood Risk	<ul style="list-style-type: none"> <li>• Planning policies should reflect the increased risk of coastal and river flooding as a result of climate change.</li> </ul>

26. This PPS complements these other policies, and is intended to focus, reinforce and clarify some of the actions already explicit or implicit in existing planning policy and guidance, as well as introduce further support for measures such as renewable and low-carbon energy, carbon capture and storage, etc (see below for a more detailed discussion of the costs and benefits associated with this PPS).
27. This PRIA therefore focuses on the options for implementing *Planning and Climate Change*, acknowledging that it is one of many UK Government measures to address climate change.

### Options for implementing Planning and Climate Change

28. As illustrated in the preceding section, the UK Government has adopted a very wide range of measures to address the climate change agenda. Indeed, all main categories of regulatory instrument (command and control, voluntary, fiscal and market based) have been used by the Government in the context of climate change.
29. The commitment to pursue the option of developing a PPS on climate change was made clear in both the Government's Climate Change Programme and Energy Review. And due regard must be given to this consideration for this PRIA. Similarly, due regard must be had to the fact that PPSs have an established format and approach. The Planning and Compulsory Purchase Act 2004 provides the parameters of the reformed planning system. Government has published new Planning Policy Statements that set out the overarching principles of planning for sustainable development (PPS1: *Delivering Sustainable Development*), and its expectations for plan making regionally and locally (PPS11: *Regional Spatial Strategies* and PPS12: *Local Development Frameworks*). In light of these considerations and given that this PPS is one of a suite of government activities already in place to address climate change, two options are assessed in this PRIA:
  1. **“Do-nothing” option:** The government does not implement a PPS on planning and climate change, but relies solely on those measures already in place.
  2. **Implementation of PPS:** This PPS is implemented using the accepted approach for spatial planning policy.
30. Other implementation options are not considered appropriate in this context.

## IDENTIFICATION OF STAKEHOLDERS AND POTENTIAL IMPACTS

### Affected stakeholders

31. Given the nature of the spatial planning system, the PPS will impact a wide variety of stakeholders. Some groups will be affected directly, through impacts on costs as a result of the planning guidance, while other groups will be affected indirectly, through benefits from reduction in climate change impacts.
32. Stakeholders that will be directly impacted by the PPS include:
  - regional and local spatial planning authorities;
  - building and infrastructure developers (housing and other developments, transport, water/waste etc);
  - service providers (transport, water companies, waste management companies/contractors);
  - technology providers, such as suppliers of renewable, low-carbon and decentralised energy systems, CHP, etc;
  - land owners;
  - financial providers, such as insurance and mortgage providers; and, ultimately
  - the general public and wider business, both through purchase and use of property and through climate change impacts.

### Vulnerable groups

33. There is a range of vulnerable groups within society who are often disproportionately affected by either Government regulation or the absence of Government intervention. In the context of climate change, all of society is likely to experience the negative consequences of warmer temperatures and more frequent severe weather incidents. However, some groups are likely to be more vulnerable to the effects of climate change:
  - **Low income households.** Those on lower incomes will be, in general, less able to adapt to the consequences of climate change<sup>4</sup>. For example, they are more likely to live in high density social housing where ventilation cannot easily be adapted to cope with warming trends, and where the urban heat island effect is likely to be most pronounced<sup>5</sup>. Lower income households are also less able to pay for common adaptation measures, such as air conditioning.
  - **Elderly people.** Elderly people typically live on fixed incomes, and hence are less able to pay for adaptation measures (as with those on lower incomes).

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<sup>4</sup> See for example *London's Warming* published by the London Climate Change Partnership in October of 2002. See: [www.london.gov.uk/gla/publications/environment/londons\\_warming02.pdf](http://www.london.gov.uk/gla/publications/environment/londons_warming02.pdf)

<sup>5</sup> The urban heat island effect is a result of the built environment both emitting and also storing heat, leading to localised increases in temperatures. The phenomenon is well observed in large conurbations such as London. In central London, the urban heat island effect adds up to a further 5 to 6°C to summer night temperatures (source: *London's Warming*, as above).

- **Individuals with poor health.** Rising temperatures can lead to greater heat stress on those in poor health. Increased mortality related to unusually high summer temperatures has been observed in a number of European countries in recent years. Rising temperatures are also often associated with increased levels of air pollution.
  - **Residents of housing in areas liable to flooding.** The increased likelihood of severe storms and sea level rise will both mean that the flood vulnerability of properties may increase.
34. Clearly, many individuals fall into more than one of these categories, and hence experience multiple vulnerabilities. Also, it should be noted that minority groups are often over represented among lower income households and in urban areas.

## IMPACTS OF PLANNING AND CLIMATE CHANGE ON STAKEHOLDERS

### **Anticipated impacts of *Planning and Climate Change***

35. As described in the previous section, *Planning and Climate Change* is one of a wide range of planning policy statements and guidance that the government has implemented and which address climate change. This PPS is intended to bring a greater focus and clarity to the climate change issue, thus reinforcing the role of the planning system in addressing climate change.
36. The purpose of this PRIA is to assess the impacts of the PPS that are *additional* to the impacts of other existing regulations and policies. The extent to which impacts or topics covered by this PPS are covered (to varying degrees) within existing planning policy statements and guidance is summarised in Table 2.

**Table2: Overview of Predicted Impacts of the PPS**

Predicted Impact of the PPS	Other Planning Policy/Guidance that Addresses this Impact or Topic
Reduced demand for travel; greater proportion of journeys by walking, cycling or public transport	PPS1, PPS3, PPG 4, PPS6, PPG13.
Flood risk management	PPG20, PPS25.
Land allocation	PPS9, PPS25.
Development of carbon emission trajectories	No explicit reference in current guidance but Sustainability Appraisal/Strategic Environmental Assessment requires planning authorities to consider climate change in predicting the effects of their plans.
Passive layout and landscape design	PPG3.
Renewable, low-carbon and decentralised energy supply	PPS1, PPS22.
Localised water provision/recycling	No explicit reference in current guidance.
Sustainable waste management	PPS10.
Carbon capture and storage	No explicit reference in current guidance.
Provision of outdoor space to promote urban cooling	No explicit reference in current guidance.
Regional vulnerability assessment	No explicit reference in current guidance.
See Table 1 for the titles of the PPSs/PPGs	

## IMPACTS ON STAKEHOLDERS

- 37. These impacts will affect each stakeholder differently. Table 3 outlines the potential impacts by stakeholder.

### Equity and fairness analysis

- 38. At this stage it does not appear that the PPS will have material adverse effects on specific groups in society or the economy such as people on low incomes, those living in rural areas, those living on fixed incomes (such as pensioners) or on small businesses. On the contrary, in helping secure progress against UK’s emission targets and shape sustainable communities that are resilient to the climate change now accepted as inevitable, the PPS could have indirect benefits for vulnerable groups in society for whom climate change is expected to have a disproportionate adverse impact.

39. Indeed, the analysis undertaken to date indicates that the principal burdens of the PPS will fall upon:
  - planning authorities;
  - property developers; and
  - suppliers of renewable, low-carbon technologies to developments.
40. These groups are considered to be capable of adapting to the additional requirements imposed by the PPS. Indeed, these stakeholders will also be beneficiaries of the PPS. Suppliers of renewable and low-carbon technologies should benefit from increased markets, whilst planners and developers should benefit from increased clarity and focus concerning planning’s role in addressing climate change.

**Table 3: Assessment of Stakeholder Impacts**

Stakeholder	Type of Impact	Positive Impacts	Negative Impacts
Regional and local planning authorities	Direct	<ul style="list-style-type: none"> <li>• Better spatial planning outcomes.</li> <li>• Greater clarity regarding provision for low carbon developments.</li> </ul>	<ul style="list-style-type: none"> <li>• Additional costs associated with implementing and monitoring PPS.</li> <li>• Cost of preparing carbon trajectories.</li> </ul>
Developers	Direct	<ul style="list-style-type: none"> <li>• Increased scope for sustainable development and renewable, low-carbon and decentralised energy projects.</li> <li>• Increase in value of developments.</li> <li>• Greater clarity regarding expectations for addressing climate change.</li> </ul>	<ul style="list-style-type: none"> <li>• Slightly increased reporting requirements as part of the planning process.</li> <li>• Increased cost of implementing renewable and low-carbon energy technologies.</li> </ul>
Product and service providers	Direct	<ul style="list-style-type: none"> <li>• Increased demand from local water/energy/waste schemes.</li> </ul>	<ul style="list-style-type: none"> <li>• Small decrease in demand for grid based centralised electricity supplies.</li> <li>• Possibly, increased grid costs in catering for decentralised energy systems.</li> </ul>
Land owners	Direct	<ul style="list-style-type: none"> <li>• Increases in land values in some areas.</li> </ul>	<ul style="list-style-type: none"> <li>• Marginal decreases in land values in some areas (likely to be non-material).</li> </ul>
Financial providers	Indirect	<ul style="list-style-type: none"> <li>• Decreases in losses from extreme events.</li> </ul>	–
General public/wider business	Direct and indirect	<ul style="list-style-type: none"> <li>• Decreased effects of climate change.</li> <li>• Increased provision of urban green space.</li> <li>• Potential for decreased energy bills.</li> </ul>	<ul style="list-style-type: none"> <li>• Any negative impacts from greater use of renewable and low-carbon energy sources (eg visual impact, noise impacts).</li> <li>• Increased localised emissions if CHP becomes more common.</li> </ul>

41. Furthermore, and as noted above, the PPS falls within a framework of Government responses to the challenge of climate change. This framework consists of general measures (such as fuel duties) as well as more specific, sector based approaches to managing carbon emissions. Therefore, a very wide range of stakeholders are affected by the Government's climate change agenda, and the stakeholders affected by this PPS are therefore not in any way being 'singled out'.
42. Under these circumstances, there are considered to be no inequitable or unfair impacts arising from the implementation of this PPS.

## IDENTIFICATION OF COSTS AND BENEFITS

### Costs

#### QUALITATIVE ASSESSMENT OF COSTS

43. The PPS will result in a number of additional costs being imposed on authorities and other stakeholders, although in practice some of these costs may already be incurred as a result of existing planning policy and guidance addressing climate change. These costs can be broadly summarised as follows:
  - costs to authorities of implementing the PPS;
  - additional project preparation and planning costs for developers; and
  - changes to construction, operation and maintenance costs for developers.
44. It is anticipated that the majority of the costs will be incurred by the regional and local planning authorities, specifically:
  - developing carbon emissions trajectories;
  - undertaking regional vulnerability assessments;
  - helping to realise potential for carbon capture and storage (CCS);
  - conducting scoping reports for energy generation options;
  - conducting scoping reports for opportunities for linking development sites in terms of energy, and utilising waste heat;
  - convening and managing an advisory body on climate change;
  - additional time spent assessing planning applications for climate change impacts; and
  - setting up and maintaining a monitoring and review process, including data collection.
45. Although some of these tasks are already required under the Strategic Environmental Assessment regulations, in general the level of effort required to comply with the requirements of this PPS will be greater.

46. The costs to other stakeholders depend very much on the types of projects that are submitted and accepted as a result of the PPS, which clearly cannot be determined as a part of this ex-ante analysis. However, it is anticipated that these costs will be minimal in the context of new developments. In addition, the PPS is drafted so as to ensure that non-deliverable technical solutions are not required. In this context, deliverable covers both technical and financial viability.

**Quantitative Assessment of Costs**

*Planning authorities – administrative costs*

47. Regional planning bodies (RPB) and local planning authorities (LPA) will incur additional administrative costs as a result of the PPS, as follows:
- Key tasks for RPBs will be carbon emissions trajectories, renewable targets, testing spatial growth options, decentralised energy and other policies (including CCS), consultation, monitoring and presenting at examinations in public.
  - Key tasks for LPAs will be spatial growth testing, drafting policies, development briefs and codes, monitoring, presenting plans at public examinations, dealing with applications and appeals.
48. Estimated costs to planning authorities are presented in Table 4.

**Table 4: Estimated Costs to Planning Authorities**

Authority	Number of Authorities affected	Cost per Authority	Total Cost (average per year)
Regional Planning Body	9 (in England)	<ul style="list-style-type: none"> <li>• £500,000 every 5 years</li> <li>• £50,000 per year</li> </ul>	<ul style="list-style-type: none"> <li>• £900,000 (policy)</li> <li>• £450,000 (monitoring and review)</li> </ul>
Local Planning Authority	Approximately 400 (in England)	<ul style="list-style-type: none"> <li>• £50,000 every 5 years</li> <li>• £500 per major application<sup>6</sup></li> </ul>	<ul style="list-style-type: none"> <li>• £4,000,000 (policy)</li> <li>• £10,000,000 (applications)<sup>7</sup></li> </ul>
<b>Total</b>			<b>£15,350,000</b>

Source: Consultant’s estimates

**Note**

- (i) These are the costs attributable to dealing with climate change, a proportion of these costs will be incurred already given expected and discretionary activity underway already. They are also the top end of the potential range given that the 400 LPAs include county councils.
- (ii) The costs for handling planning applications should be reflected in fees charged.

<sup>6</sup> Based on an estimated 2.5 day input per major application at a cost of £200 per day, giving a total cost of £500 per major application.

<sup>7</sup> According to the Communities and Local Government development control statistics 3 per cent of applications are deemed to be major, giving a rough estimate of about 20,000 major applications per annum.

49. Considered in the context of the overall cost of the spatial planning system, which is estimated to be well in excess of £1 billion per annum, these costs are not considered to be material. See Box 1 for a summary of evidence from the Barker review on the costs of the planning system<sup>8</sup>.

#### Box 1: Costs of the Planning System

Planning authorities are estimated to spend over £700 million per annum on operating the planning regime. Over 700,000 planning applications were received in the 2004-5 fiscal year, for which planning fees of over £200 million were collected by planning authorities from applicants. In addition, the Planning Inspectorate (at a cost of almost £50 million per annum) and the Environment Agency are also heavily involved in the planning process.

In addition to the public sector costs and planning fees, developers also spend considerable sums on planning, environmental, legal and other advice relating to planning matters. Fee income of the largest 25 planning consultancies was estimated at just under £200 million in 2003-4, while fee income for planning lawyers was estimated at £350 to £500 million in 2006 by the Barker review.

Overall, it is likely that the UK land use planning regime costs at least £1,500 million per annum to operate, with these costs being split on a broadly even basis between the public and private sectors (and with a portion of public sector costs recovered directly from applicants through planning fees).

#### Developers – administrative costs

50. It is assumed that the additional cost associated with this PPS would be relatively small compared to the overall cost of preparing a planning application, and hence only a very small percentage of the additional costs associated with development outlined in the section following. Initial estimates suggest that addressing carbon considerations in a thorough manner should require an average of five working days of professional support at an average cost of £500 per day for each major application. This gives a total of £2,500 per major application, or £50,000,000 per annum. However, it is probable that some or all of these costs are being incurred already as a result of expected and discretionary activity underway already (see para 35 above). Indeed, by focussing and clarifying the role of the planning system in addressing climate change, this PPS could in practice have the effect of reducing the costs currently incurred by developers.
51. Although the cost of addressing carbon considerations sounds large, in the context of the total expenditure on construction within the UK the sum is in fact very small. We have found no data for the turnover of the construction industry, but the value added (which is smaller than turnover) produced by the construction sector accounts for 5.4 per cent of GDP<sup>9</sup>. UK GDP was approximately £1.25 trillion in 2005, meaning that construction value added was about £67.5 billion<sup>10</sup>. Therefore, the additional costs, if they are indeed additional to those currently incurred, would be less than 0.1 per cent of construction value added, and a smaller percentage of turnover. From this we can deduce that the additional costs would not represent a material increase in construction sector costs. (These expenditures would also have associated benefits – see below.)

<sup>8</sup> *The Barker Review of Land Use Planning*. See:

[www.hm-treasury.gov.uk/independent\\_reviews/barker\\_review\\_land\\_use\\_planning/barkerreview\\_land\\_use\\_planning\\_index.cfm](http://www.hm-treasury.gov.uk/independent_reviews/barker_review_land_use_planning/barkerreview_land_use_planning_index.cfm)

<sup>9</sup> Source: [www.statistics.gov.uk/about/methodology\\_by\\_theme/constructionstats/downloads/constructiondti.pdf](http://www.statistics.gov.uk/about/methodology_by_theme/constructionstats/downloads/constructiondti.pdf)

<sup>10</sup> Source: [www.statistics.gov.uk/downloads/theme\\_economy/ukea2006q2.pdf](http://www.statistics.gov.uk/downloads/theme_economy/ukea2006q2.pdf)

### **Developers – additional costs associated with development**

52. As discussed in Table 2, the primary additional impacts of the PPS are anticipated to be an increase in the:
- uptake of on-site and off-site renewable and low-carbon energy projects;
  - approval of infrastructure for carbon capture and storage (CCS) schemes; and
  - uptake of localised water treatment schemes.
53. The quantity, type and scope of any projects that may occur as a result of this PPS, and that would not otherwise occur, are unknown and would be extremely hard to forecast with any degree of accuracy. It is therefore not possible to create a detailed assessment of the additional cost that will be incurred as a result of the PPS facilitating approval of these types of projects.
54. However, there are approaches that can be used to obtain an understanding of the net costs and benefits of the above impacts of the PPS:
- identify the carbon abatement costs (£ per tonne of carbon) for the technologies that are likely to become more common as a result of the PPS;
  - identify the costs to society of carbon emissions; and
  - compare the figures – where the abatement cost per tonne is lower than the estimated costs to society of carbon emissions there will be a net benefit from the measure (and *vice versa*).
55. The cost of carbon abatement is estimated by calculating the additional cost of generation using these technologies to the extent that a tonne of carbon would be prevented from being emitted from conventional sources/technologies (ie if one megawatt hour of conventional generation emitted a tonne of carbon, what would be the incremental cost of generating a megawatt hour using renewable and/or low-carbon energy technologies).

### **On-site and off-site renewable and low-carbon energy projects**

56. At present, the majority of renewable and low-carbon energy technologies whose adoption would be stimulated by the PPS produce electricity at a higher cost than conventional, grid based sources. Estimates of the range of carbon abatement costs vary, but the Government's Energy Review gave the following broad ranges per tonne of carbon (£t/C):
- Renewables: £34 to £128
  - Gas with Carbon Capture and Storage (CCS): £25 to £49
  - Coal with CCS: £–11 to £48.

57. More detailed research has been undertaken for a sample of technologies for the Stern Review<sup>11</sup>. Table 5 lists the estimated cost of carbon abatement for this sample of renewable and low-carbon energy technologies, including Carbon Capture and Storage (CCS). The research confirmed that, at present, without Government intervention many renewable and low-carbon energy sources cost more than conventional, centralised grid based electricity and energy systems. It should be noted that these figures are not absolute – the cost of abatement will have a range for each technology depending on the type of equipment and circumstances in which the technology is used. The figures quoted here are mid point estimates and cover both construction/installation and operating costs.

**Table 5: Estimated Carbon Abatement Costs for a Selection of Renewable and Low-Carbon Energy Technologies, 2020-2025**

Technology	Carbon Abatement Cost (£/tC)
Onshore wind	99
Combined heat and power (CHP)	429
Solar photovoltaic (PV)	374
Solar thermal	242
Electricity from gas with CCS	99
Electricity from coal with CCS	88
Source: Anderson, Imperial College London, 2006 <sup>12</sup>	
Note: figures converted from CO <sub>2</sub> to C (carbon)	

### Localised water schemes

58. Pumping of water and wastewater accounts for a significant proportion of energy consumption. One potential solution to reduce energy use in the sector is to rely on more localised water networks, to reduce the amount of pumping needed and hence energy consumption.
59. Relatively little research has been conducted on the cost abatement potential of local water networks, and hence it is not possible to quantify this benefit here. The Carbon Trust has been undertaking research with the UK water companies to identify carbon saving measures for the industry, and the findings (when available) may provide more clarity.

<sup>11</sup> The abatement costs do represent an exhaustive list of technologies. For example, no data were presented for micro-generation technologies.

<sup>12</sup> Commissioned as part of Stern Review.

## BENEFITS

### Introduction

60. Many of the potential benefits that arise from planning for climate change will arise from the greater clarity and focus on low carbon development, which in turn will arise from reinforcing measures that are already driven by existing planning policy and guidance. The *additional* benefits brought about by the proposed PPS are predicted to be:
- greater clarity for all users of the planning system;
  - decreased carbon emissions through increased uptake of renewable and low-carbon energy technologies and CCS;
  - energy savings through localised water treatment schemes;
  - expanded markets and demand for renewable and low-carbon technologies;
  - broader environmental benefits, through reductions in the impacts of climate change;
  - reduction in the demand for conventionally generated electricity, leading to the reduction of non-carbon atmospheric emissions from fossil fuel fired power stations (for example particulate matter and oxides of sulphur and nitrogen);
  - benefits in terms of increased security of supply to the national and regional energy systems, arising from reduced energy demand (and therefore reduced fossil fuel imports);
  - potential reduction of energy costs with associated benefits for fuel poverty and business competitiveness;
  - improvement to local air quality by reducing the need to travel, especially by car, and health benefits associated with walking and cycling; and
  - improved resilience of communities to the climate change now accepted as inevitable, and clearer expectations on protection from flooding.
61. The primary additional benefit of the proposed PPS will be the decreased carbon emissions and associated broader environmental benefits that will accrue from reduced climate change impacts, through increased use of renewable and low-carbon energy sources and CCS.

### Greater clarity for users of the planning system

62. The PPS provides significant clarification of the role of the land use planning system in carbon management. This clarification should help both planning authorities and applicants to have greater clarity around key issues such as the:
- remit of the planning system, for example with respect to how it complements Buildings Regulations;

- expectations of developers with respect to the carbon performance of new developments as they bring schemes forward; and
  - the grounds on which the planning system may be used to influence the carbon performance of new development.
63. Greater clarity should lead to less wasted effort and quicker decisions within the planning system. The types of costs that this should save include:
- Removing the need for individual planning authorities (at the local or regional level) to develop their own policies with respect to the carbon performance of new development.
  - Fewer contested planning applications, potentially saving considerable amounts of time and money with respect to planning and legal advisors.
  - More timely approval of planning applications. In this respect, it is worth noting reducing planning delays by only a few weeks on some of the very major planning applications that the PPS will apply to could easily outweigh the administrative costs of implementation to planning authorities and developers.
64. Therefore, while it is not possible to quantify the benefits associated with the greater clarity that will be provided by this PPS, it is likely that the savings will, over time, be equal to or outweigh the administrative costs of implementation.

### **Quantitative assessment of benefits**

65. As with the costs, it is not possible to predict the quantity, type and scope of projects that will occur as a result of this PPS, and hence it is not possible to accurately quantify the benefits that will accrue. However, it is possible to estimate the benefits of abated carbon emissions using two approaches.
66. The first approach uses the social cost of carbon (SCC). The SCC, originally developed by the Department for the Environment, Food and Rural Affairs (Defra), and endorsed as Government-wide guidance, is an estimate of the total damages incurred internationally per tonne of carbon emitted. The most recent Defra central estimate, using 2000 prices, is that each tonne of carbon causes damage worth £70, within a range of £35 to £140, with the estimated cost rising by £1/tC per year in real terms to reflect the rising cost of emissions over time. This value takes account of impacts such as habitat loss, increased frequency of natural disasters and the costs of abatement expenditures such as flood defence. Clearly, the majority of these damages take place in locations outside the United Kingdom, and as such the SCC does not represent damage costs to this country only. However, given the global nature of the challenges posed by climate change, and the Government's stated intention to act in the best interests of the international community rather than just the United Kingdom, such a valuation approach is justified.

67. The Stern Review has since estimated this cost at \$85 (in 2000 prices) per tonne of CO<sub>2</sub>, equivalent to £238 per tonne of carbon (at the then prevailing exchange rates). Such estimates and any further economic analysis are under review and may be incorporated into ongoing analysis as appropriate. For the current assessment, the Government's SCC figure has been assumed.
68. The second approach uses the traded value of carbon in international markets to value the benefits of carbon abatement. The current traded price of carbon is €12.90/tCO<sub>2</sub>, but has historically ranged from around €8 to €30/tCO<sub>2</sub> (the current price is lower than average and this is regarded to be due to unusual circumstances). The Government typically uses a range of €5 to €40 t/CO<sub>2</sub> for future projection (or approximately £3.50 to £27). For the purposes of this PRIA we have assumed a cost of £10 per tonne of CO<sub>2</sub>, equivalent to around £37 per tonne of carbon, to give an illustration of market prices (this should be regarded as indicative only). This value can be seen as a proxy for the cost to the United Kingdom as it represents the price that would have to be paid by companies or organisations to abate a tonne of carbon.

## OPTIONS ASSESSMENT

### **"Do-nothing" baseline scenario**

69. In the "do-nothing" scenario, the PPS is not implemented. Under this scenario, the costs and benefits of the PPS outlined above would not accrue. However, the UK would incur the cost of climate change impacts.

### **Implement the Planning Policy Statement: *Planning and Climate Change***

70. Using the costs and benefits of abatement described above, we can estimate whether the types of projects that the policy might facilitate are likely to have a net cost or a net benefit.
71. Columns D and F of Table 6 summarise the *net benefits* of carbon abatement using the given technologies using, respectively, the SCC and traded prices of carbon.

**Table 6: Net Benefits of Renewable and Low-Carbon Energy Technologies**

A. Technology	B. Abatement Cost (per tC)	SCC Approach <sup>(1)</sup>		Market Price Approach <sup>(1)</sup>	
		C. Social Cost of Carbon (per tC)	D. Net Benefit/Cost (per tC)	E. Market Cost of Carbon (per tC)	F. Net Benefit/Cost (per tC)
Onshore wind	£99	£70	£-29	£37	£-62
Combined heat and power (CHP)	£429	£70	£-359	£37	£-392
Solar photovoltaic (PV)	£374	£70	£-304	£37	£-337
Solar thermal	£242	£70	£-172	£37	£-205
Electricity from gas with carbon capture and storage (CCS)	£99	£70	£-29	£37	£-62
Electricity from coal with CCS	£88	£70	£-18	£37	£-51

Source: Consultant's analysis of a range of abatement costs  
Note: (1) The SCC and market price approaches are alternatives and should not, therefore, be summed

72. As can be seen from column D of the table, a comparison with the SCC suggests that all of the renewable and low-carbon energy technologies that may be encouraged by the PPS would have a net economic cost. This is also the case where the traded cost of carbon is used, resulting in higher overall net economic costs.
73. These findings suggest that uptake of renewable, low-carbon and decentralised energy technologies is likely to yield net economic costs, although the overall net cost will be determined by the mix of technologies deployed and, crucially, their total abatement potential. However, this finding is likely to be a worst case scenario for two reasons.
74. Firstly, it should be noted that the marginal abatement cost figures do not include energy management measures. Most energy demand reduction options can reduce carbon at a net positive benefit (ie a negative cost of abatement) depending upon the investment cost and pay-back period of each option. The total net cost arising from introduction of the PPS would therefore be reduced if these measures were to be included as a part of a more concerted effort to develop carbon efficient buildings. It is also emphasised that the costs included in the analysis are averages, and in fact costs can vary significantly depending on the specific project context. Hence there will be scenarios in which there is a significant net benefit and others with a significant net cost.

75. Secondly, over time it is very likely that the costs of the energy technologies that are likely to be promoted by the PPS will fall as technologies advance and as markets mature (for example as a result of greater competition and economies of scale in production). In this regard the PPS will play an important role in stimulating market demand within the UK, and hence there should be beneficial second order effects that will lead to cheaper renewable, low-carbon and decentralised energy technologies. This in turn will help to stimulate their uptake in the UK and abroad.
76. Estimates based on experience of low- and zero-carbon technologies, indicate that costs could be reduced significantly for each doubling of installed capacity<sup>13</sup>. For example, industry analysts have predicted that if there were 12 million installed Micro-Combined Heat and Power units the additional cost (ie marginal cost based on a current typical market price for conventional equipment) might fall from around £2,000 to £400.
77. While it is not possible to forecast future prices for the renewable and low-carbon energy technologies whose adoption will be stimulated by the PPS, it can be assumed that the estimates presented in Table 6 represent something approximating to a worst case scenario.

## EQUITY AND FAIRNESS

### General

78. *Planning and Climate Change* has not been developed to correct an inequality but, as noted in paragraph 33, while all sections of society will be impacted by the negative consequences of climate change, certain groups are more likely to be negatively affected than others, namely:
  - low income households;
  - elderly people;
  - persons in poor health; and
  - residents of areas vulnerable to flooding.
79. The effects of the PPS will be to:
  - reduce the impacts of climate change; and
  - improve the adaptability of new development to the effects of climate change.
80. Both of these effects will be of benefit to the most vulnerable groups mentioned above.

### Race equality impacts

81. As noted in paragraph 34, racial minorities (and indeed other minority groups) tend to have lower incomes (although there are notable exceptions to this), and are more likely to be residents of urban areas.

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<sup>13</sup> Based on research conducted by M. Hinnells, the International Energy Agency and the Government Performance and Innovation Unit, and Code for Sustainable Homes cost review, EP/Housing Corp.

82. Therefore, while the PPS will impact equally across members of the community, benefits are likely to accrue to racial minorities to a slightly greater extent than they will accrue to the population at large. However, the degree of difference is likely to be minor and not detectable by individuals, and for the purposes of this PRIA the key finding is that no racial group should be adversely affected.

### **Rural impacts**

83. The PPS is not expected to have any impact on the *amount* of development that is brought forward. However, the PPS will reinforce and clarify the need for new developments to be located in areas that encourage transport options other than private car use (for example public transport, walking and cycling). This may lead to less development being brought forward in *some* rural locations. However, the PPS contains no requirement that the total amount of development that occurs in rural areas should be reduced. Moreover, the PPS makes clear that when considering the need to secure affordable housing opportunities in rural areas to meet the needs of local people, planning authorities should recognise that an otherwise acceptable site may not be readily accessible by means of travel other than the private car.
84. With respect to existing rural residents, they are expected to experience the costs and benefits of the PPS in much the same way as urban residents, with the exception of marginal reductions in the urban heat island effect, which is not a phenomenon that applies in most rural areas (although it may apply in rural areas adjacent to large urban areas). Therefore, no negative impacts are anticipated as a result of the PPS.

### **Health impacts**

85. As noted in paragraph 33, rising summer temperatures are likely to have adverse health effects, particularly on those who are already in poor health. The PPS is likely to help alleviate summer heat stress through reductions in carbon emissions, lessening of the urban heat island effect and improved ability of developments to cope with a warming climate. Although these beneficial effects are likely to be modest, they will nevertheless have positive health consequences. There may also be positive health, and in particular safety, benefits from reduced incidences and impacts of severe weather.
86. In the longer term climate change may increase the incidence of diseases that, for climatic reasons, are not common in the United Kingdom. This may include water borne and insect or wildlife borne diseases. Conversely, warmer winters may make a modest contribution to reducing cold weather and winter seasonal diseases.
87. By making clear expectations on protection from flooding, the PPS will also contribute to a reduction in the public health effects associated with flooding.

88. By ensuring full consideration is given to creating and securing opportunities for sustainable transport, the PPS may lead to a greater number of people choosing to walk and cycle on a regular basis, with associated health benefits due to exercise.
89. Overall, it can be concluded that the PPS is likely to have positive health effects, and the likelihood of negative health effects is very limited.

### **Small businesses**

90. Small businesses often find it more difficult to comply with new regulations than larger firms, which have greater resources for implementation. The climate change PPS is not expected to have any negative impacts on small businesses, as the greater focus and clarity on carbon issues should enable small developers to identify requirements more clearly. The discussion presented in the section on benefits above concerning the benefits of improved clarity within the planning system applies in particular to small developers.
91. By helping to develop markets for renewable, low-carbon and decentralised energy technologies the PPS will also benefit the many small businesses active in this sector.

## **COMPETITION ASSESSMENT**

92. The questions to be asked in a competition filter test are presented in Table 7.

**Table 7: Competition Assessment Filter**

Q1: In the market(s) affected by the new regulations, does any firm have more than 10 per cent market share?
Q2: In the market(s) affected by the new regulation, does any firm have more than 20 per cent market share?
Q3: In the market(s) affected by the new regulation, do the largest three firms together have at least 50 per cent market share?
Q4: Would the costs of the regulation affect some firms substantially more than others?
Q5: Is the regulation likely to affect the market structure, changing the number or size of firms?
Q6: Would the regulation lead to higher set-up costs for new or potential firms that existing firms do not have to meet?
Q7: Would the regulation lead to higher ongoing costs for new or potential firms that existing firms do not have to meet?
Q8: Is the sector characterised by rapid technological change?
Q9: Would the regulation restrict the ability of firms to choose the price, quality, range or location of their products?

93. A competition assessment is used to ensure that a proposed regulation does not have a negative or positive impact on some firms and not others. The questions above are typically used to assess whether any firms will be disproportionately affected. Where this is the case, the regulation may require modification to ensure that regulations imposed on business do not unfairly impact small firms, or drive the market to a less competitive state.
94. The PPS will not have a major impact on the business sectors affected (namely developers and suppliers of renewable and low-carbon energy generation products). There will therefore be no change to the *structure* of the supply chain or demand, and hence no competition impacts.

## **ENFORCEMENT, SANCTIONS, MONITORING AND REVIEW**

### **Enforcement and sanctions**

95. As with all planning policy statements, regional and local planning authorities and developers will be required to take account of the new policy once it has been received in its final form. Emerging policies, in the form of draft policy statements and guidance, can also be regarded as material considerations, depending on the context. The Government encourages local authorities and developers to implement the policy. *Planning and Climate Change* makes it clear that applicants for planning permission who develop a proposal that will contribute to the delivery of the Key Planning Objectives set out in the PPS, and that is consistent with the development plan, should expect expeditious and sympathetic handling of the planning application.
96. Government is not anxious to implement sanctions to enforce the policy. However, Government has set out clear expectations for the performance and delivery of the spatial planning system, and already has the necessary means for addressing poor performance.

### **Monitoring and review**

97. As a part of its general oversight of the planning system in England, Communities and Local Government will monitor the effectiveness of the PPS. This is in line with the approach adopted for other planning policies, guidance and practice. No specific review date is planned, but the policy presented within the PPS will be supported by research to:
  - (i) assess the effectiveness of implementation through the planning process; and
  - (ii) evaluate the effectiveness of the policy in delivering on its objectives.

98. In addition, regional planning bodies and all planning authorities are required under the terms of the PPS to undertake a programme of monitoring, and good practice in monitoring and review is underlined as an important part of meeting the PPS' overall objectives.

## CONCLUSIONS AND RECOMMENDATIONS

99. The proposed PPS is one of many Government measures that address climate change (including several other PPSs). The role of the PPS is to focus, clarify and reinforce the role of the spatial planning system in meeting the objectives of the Government's Climate Change Programme.
100. The potential costs to society associated with climate change, as reflected in the social cost of carbon, and further emphasised in the recently issued Stern Review on Climate Change, could be significant.
101. The primary impacts of this PPS are anticipated to be an increased uptake of on and/or off-site renewable and low-carbon energy technologies, CCS and localised water schemes. There will also be benefits associated with new developments being shaped in such a way as to be more resilient to the effects of climate change (such as rising temperatures).
102. A comparison of the cost of the relevant energy technologies and CCS with the social and market cost of carbon suggests that these technologies are not currently economically or financially viable, though several of the more advanced technologies, such as CHP and wind, are approaching break even. However, this is based on existing prices. By stimulating markets for renewable and low-carbon energy technologies, the implementation of this PPS should, over the medium to long-term, stimulate innovation and reduce the costs of these technologies, thus contributing to a desirable knock-on effect.
103. A summary of the findings of the PRIA are presented in Table 8.

**Table 8: Initial Summary of PRIA**

Option	Costs	Benefits
Do nothing	<ul style="list-style-type: none"> <li>• Increased costs associated with uncertainty within the planning regime, including costs of delayed and/or contested development and costs associated with developing guidance similar to the PPS at the local level.</li> <li>• The contribution of development to climate change will not be minimised. As demonstrated by the Stern Review, this could bring significant additional costs to society.</li> <li>• Lower take up of renewable and low-carbon energy technologies will mean greater consumption of fossil fuels, and hence higher emissions of non-carbon atmospheric pollutants such as oxides of sulphur and nitrogen.</li> <li>• Increasing adverse health effects and defensive expenditures, such as the use of air conditioning.</li> </ul>	<ul style="list-style-type: none"> <li>• There would be no significant benefits associated with the do nothing option.</li> </ul>
Implement Planning Policy Statement: Planning and Climate Change	<ul style="list-style-type: none"> <li>• Marginal additional costs for planning authorities to undertake the necessary activities, as stipulated in the PPS</li> <li>• Marginal additional development costs for developers, including additional design and planning costs and the costs of implementing on-site and/or off-site renewable and low-carbon energy technologies.</li> </ul>	<ul style="list-style-type: none"> <li>• Greater clarity within the planning regime with respect to carbon and climate change issues.</li> <li>• Reduced costs associated with climate change, both in the UK and internationally, due to the adoption of renewable and low-carbon energy technologies, and carbon capture and storage.</li> <li>• Reduced environmental damage costs associated with non-carbon atmospheric emissions due to the reduced consumption of fossil fuels.</li> <li>• Increased ability of developments to cope with higher temperatures without the need for expensive solutions such as air conditioning.</li> <li>• Reduced health impacts associated with rising temperatures.</li> <li>• Stimulation of the markets for renewable and low-carbon energy technologies.</li> </ul>

# Annex A

There are several potential options for addressing the challenges posed by climate change. These include the full range of potential regulatory and market mechanisms, including:

- do nothing;
- voluntary agreements;
- “command and control” type regulation;
- fiscal measures; and
- market based measures, for example emissions permit trading.

A general assessment of the merits and demerits of these regulatory approaches is presented in Table A.

**Table A: Assessment of Options**

Option	Key Advantages	Key Disadvantages
Do Nothing	<ul style="list-style-type: none"> <li>• No compliance costs</li> </ul>	<ul style="list-style-type: none"> <li>• No contribution to meeting policy objectives</li> <li>• Costs of not meeting policy objectives not mitigated</li> </ul>
Voluntary Agreements	<ul style="list-style-type: none"> <li>• Can be easy to implement Flexibility</li> <li>• Flexibility</li> <li>• No need for regulatory oversight</li> <li>• Lower costs for business and government in enforcement and compliance.</li> <li>• Allows for innovation</li> </ul>	<ul style="list-style-type: none"> <li>• Verification and enforcement weak or not possible</li> <li>• Enrolment may be limited to most responsible firms</li> <li>• May allow non-participants to gain competitive advantage</li> </ul>
Command and Control Approaches	<ul style="list-style-type: none"> <li>• Relatively certain outcomes</li> <li>• Applies to all affected parties – no free riders</li> <li>• Potential for strong enforcement</li> <li>• May stimulate innovation if tough targets are set</li> </ul>	<ul style="list-style-type: none"> <li>• May not achieve least cost outcome</li> <li>• Requires regulatory oversight</li> <li>• Inflexible</li> <li>• May disadvantage UK firms if similar standards not upheld everywhere</li> </ul>
Fiscal Measure	<ul style="list-style-type: none"> <li>• Raise revenues</li> <li>• Can comply with ‘polluter pays’ principle</li> <li>• Send price signals that encourage market responses</li> <li>• On-going stimulus for innovation</li> </ul>	<ul style="list-style-type: none"> <li>• Uncertainty of outcome</li> <li>• May be fiscally regressive (ie affect the poorest most)</li> <li>• Can encourage illegal behaviour</li> <li>• May disadvantage UK firms if similar fiscal measures not implemented elsewhere</li> </ul>
Market-based Instruments	<ul style="list-style-type: none"> <li>• Outcome based</li> <li>• Allow fixed limits for pollutants to be set</li> <li>• Existing emissions can be ‘grandfathered’ to ease burdens of implementation</li> <li>• Encourage trading to find least cost means of reaching pollution target</li> <li>• On-going stimulus for innovation</li> </ul>	<ul style="list-style-type: none"> <li>• Monitoring and verification of data are needed to ensure compliance</li> <li>• Can be difficult to estimate appropriate level of emissions rights to ‘grandfather’</li> <li>• May disadvantage UK firms if similar fiscal measures not implemented elsewhere</li> </ul>

## Part 5 List of Consultation Documents and Availability



## Part 5 List of Consultation Documents and Availability

### CURRENT CONSULTATION

Communities and Local Government consultation paper on Planning Policy Statement (PPS): *Planning and Climate Change*, including:

- Draft Framework of the practice guide on the PPS
- Partial Regulatory Impact Assessment

Communities and Local Government consultation paper, *Building a Greener Future*, including Partial Regulatory Impact Assessment.

[www.communities.gov.uk/consultations](http://www.communities.gov.uk/consultations)

### OTHER DOCUMENTS

*Climate Change: The UK Programme 2006*

[www.defra.gov.uk/environment/climatechange/uk/ukccp/index.htm](http://www.defra.gov.uk/environment/climatechange/uk/ukccp/index.htm)

*The Energy Challenge: Energy Review Report 2006*

[www.dti.gov.uk/energy/review/page31995.html](http://www.dti.gov.uk/energy/review/page31995.html)

*Stern Review on the Economics of Climate Change*

[www.hm-treasury.gov.uk/independent\\_reviews/stern\\_review\\_economics\\_climate\\_change/sternreview\\_index.cfm](http://www.hm-treasury.gov.uk/independent_reviews/stern_review_economics_climate_change/sternreview_index.cfm)

The Building and Approved Inspectors (Amendment) Regulations 2006

[www.opsi.gov.uk/si/si2006/20060652.htm#19](http://www.opsi.gov.uk/si/si2006/20060652.htm#19)

The Code for Sustainable Homes

[www.communities.gov.uk/index.asp?id=1503251](http://www.communities.gov.uk/index.asp?id=1503251)

or

[www.planningportal.gov.uk/england/professionals/en/4000000000001.html](http://www.planningportal.gov.uk/england/professionals/en/4000000000001.html)

Communities and Local Government Parliamentary Statement

[www.communities.gov.uk/newsroom](http://www.communities.gov.uk/newsroom)

Planning Policy Statement 25: *Development and Flood Risk*

[www.communities.gov.uk/index.asp?id=1504639](http://www.communities.gov.uk/index.asp?id=1504639)

## Part 6 Consultation Questions



## Part 6 Consultation Questions

### Questions on which we would particularly like your views

Name:	
Organisation:	
Address:	
E-mail address:	

Respondents should place a tick (✓) in the yes or no boxes to indicate general agreement or disagreement. **You are encouraged to use the comments box provided to reinforce and/or explain the reasons for agreement and explain the reasons for disagreement. Please include examples from your own experience.**

	Yes	No
<p><b>Q.1</b> There is an urgent need for action on climate change and we consider that, used positively, spatial planning has a pivotal and significant role in addressing this challenge. We will provide practice guidance to help implement the planning policy for climate change set out in the PPS. Read together, and as part of the wider package of action being taken forward by the Department in <i>Building a Greener Future</i> to help deliver the Government's ambition of achieving zero carbon development, will the new policy and proposed practice guidance secure planning strategies that deliver reductions in emissions and shape sustainable communities that are resilient to the climate change now accepted as inevitable?</p>		
<p>Explanation/comment:</p>		

	Yes	No
<p><b>Q.2</b> The PPS sets out Key Planning Objectives and Decision-making principles for the preparation and delivery of spatial strategies by regional planning bodies and all planning authorities. Do you agree with these?</p>		
<p>Explanation/comment:</p>		
<p><b>Q.3</b> It is proposed that climate considerations should be a key and integrating theme of the regional spatial strategy (RSS) and be addressed in conjunction with the economic, social and environmental concerns that together inform the overall spatial strategy and its components. Do you agree?</p>		
<p>Explanation/comment:</p>		

	Yes	No
<p><b>Q.4a</b> The PPS expects regional planning bodies (RPBs) to consider the likely performance of RSS on mitigating climate change. In doing so, the PPS makes clear that this should be a key part of the sustainability appraisal, which should be used to identify and evaluate possible tensions or inconsistencies between current, or likely future, baseline conditions and securing RSS in line with the Key Planning Objectives in the PPS. Do you agree with the suggested approach?</p> <p><b>Q.4b</b> The PPS encourages RPBs, as part of their approach to managing performance on carbon emissions, to produce regional trajectories, to be set out in RSS, for the expected carbon performance of new residential and commercial development. Do you agree with the suggested approach?</p>		
Explanation/comment:		
<p><b>Q.5</b> We propose an approach to the identification and allocation of sites and areas for development in which priority should be given to those likely to perform well against the criteria set out in paragraph 19, and that those that perform badly should not normally be considered for allocation for new development. Do you agree with the suggested approach?</p>		
Explanation/comment:		

	Yes	No
<b>Q.6</b> The PPS expects local planning authorities to assess their area’s potential accommodating renewable and low-carbon technologies, including for micro-renewables to be secured in new residential, commercial or industrial development.		
<b>Q.6a</b> Do you agree that local planning authorities should consider allocating sites for supplying renewable and/or low-carbon energy and supporting infrastructure, taking care to avoid stifling innovation?		
<b>Q.6b</b> Do you agree that local planning authorities should ensure that a significant proportion of the energy supply of substantial new development is gained on-site and renewably and/or from a decentralised, renewable or low-carbon, energy supply?		
<b>Q.6c</b> Do you agree with the approach for setting out, in a development plan document, a significant proportion of the energy supply of substantial new development to be gained on-site and renewably and/or from a decentralised, renewable or low-carbon, energy supply?		
<b>Q.6d</b> Do you agree that in the interim period before “a significant proportion” is tested and defined through the preparation and adoption of a development plan document a standard of 10% should be applied?		
Explanation/comment:		

	Yes	No
<p><b>Q.7</b> The PPS forms part of a wider package of action being taken forward by the Department to help deliver the Government's ambition of achieving zero carbon development. This includes the Code for Sustainable Homes and a consultation document, <i>Building a Greener Future</i>, which sets out how planning, Building Regulations and the Code for Sustainable Homes can drive change, innovations and deliver improvements to the environment.</p>		
<p><b>Q.7a</b> Do you agree that, for the reasons set out in <i>Building a Greener Future</i>, there should be a national strategy for regulating the emissions from buildings supported by local promotion of renewable and low-carbon energy supply?</p>		
<p><b>Q.7b</b> Does the framework that we describe give adequate room to authorities and developers to make best use of the opportunities available at different spatial levels, for example district heating and district cooling?</p>		
<p>Explanation/comment:</p>		

	Yes	No
<p><b>Q.8</b> Paragraph 35 of the PPS expects planning authorities to consider the environmental performance of proposed development, taking particular account of the climate the development is likely to experience over its expected lifetime. Do you agree with this approach?</p>		
<p>Explanation/comment:</p>		
<p><b>Q.9</b> We consider effective monitoring and review is essential in securing responsive action to tackle climate change. Do you agree that the expected annual monitoring should include outcome performance against the carbon performance trajectories or other yardsticks for identifying trends in performance, and renewables targets set in RSS?</p>		
<p>Explanation/comment:</p>		

	Yes	No
<p><b>Q.10</b> Do you consider the proposed scope of the practice guide (at Part 3) covers all the topics it needs to? If not, what is missing, and why? Does the proposed scope of the practice guide include topics which don't need to be covered? If so which, and why?</p>		
<p>Explanation/comment:</p>		
<p><b>Q.11</b> The Partial RIA (at Part 4) sets out the likely benefits and costs of the PPS, assessing two options, (i) the "do nothing" option and (ii) implementation of the PPS. Are these options viable? Would you add to/change the disadvantages/advantages of each? Are there any other options that should be considered?</p>		
<p>Explanation/comment:</p>		

	Yes	No
<p><b>Q.12</b> The Partial RIA sets out potential impacts by stakeholder. Would you add to/change the impacts for each group? Are any stakeholders missing from the list?</p>		
<p>Explanation/comment:</p>		
<p><b>Q.13</b> The Partial RIA sets out the likely benefits and costs of the PPS. Do you agree with assumptions made? If not, it would be helpful if you could set out why not and provide any quantifiable evidence available to you on benefits and costs.</p>		
<p>Explanation/comment:</p>		
<p>Other comment:</p>		

## Part 7 Statement of Consultation



## Part 7 Statement of Consultation

### THE CONSULTATION CRITERIA

The Government has adopted a code of practice on consultations. The criteria below apply to all UK national public consultations on the basis of a document in electronic or printed form. They will often be relevant to other sorts of consultation.

Though they have no legal force, and cannot prevail over statutory or other mandatory external requirements (eg under European Community Law), they should otherwise generally be regarded as binding on UK departments and their agencies, unless Ministers conclude that exceptional circumstances require a departure.

- 1. Consult widely throughout the process, allowing a minimum of 12 weeks for written consultation at least once during the development of the policy.**
- 2. Be clear about what your proposals are, who may be affected, what questions are being asked and the timescale for responses.**
- 3. Ensure that your consultation is clear, concise and widely accessible.**
- 4. Give feedback regarding the responses received and how the consultation process influenced the policy.**
- 5. Monitor your department's effectiveness at consultation, including through the use of a designated consultation co-ordinator.**
- 6. Ensure your consultation follows better regulation best practice, including carrying out a Regulatory Impact Assessment if appropriate.**

The full consultation code may be viewed at [www.cabinet-office.gov.uk/regulation/Consultation/Introduction.htm](http://www.cabinet-office.gov.uk/regulation/Consultation/Introduction.htm)

Are you satisfied that this consultation has followed these criteria? If not, or you have any other observations about ways of improving the consultation process please contact:

Albert Joyce, Communities and Local Government Consultation Co-ordinator, 6/H10, Eland House, Bressenden Place, London, SW1E 5DU.

or by e-mail to: [albert.joyce@communities.gsi.gov.uk](mailto:albert.joyce@communities.gsi.gov.uk)