Sustainable Design & Construction

Oxfordshire Planning Advice Note

Purpose & Status of this Document

- This Advice Note contains the interim policies on renewable energy provision as set out in the adopted South East Plan and emphasises, as set out in South East Plan policy NRM11, that these will be applied before Core Strategy policies are adopted.

- It makes clear that, at this stage, authorities will also be encouraging the consideration of sustainable construction methods, given the direction of the national and regional planning policy context. Specific requirements, and the local circumstances justifying them, will be set out in Local Development Frameworks in due course.

- The Advice Note has been produced to emphasise that the local authorities who have endorsed this document will be applying the South East Plan's policy in the interim period before locally specific targets are justified, tested and examined through the statutory Local Development Framework process.

- The purpose of this document is also to provide a detailed list of sources of information to provide a signpost for applicants and further information for decision makers. There is a vast amount of supporting information already available on these issues, and it is not considered appropriate to repeat it here.

- Locally specific examples of good practice and detail on sustainable design considerations may be considered by each authority in the preparation of their LDFs, for example through the production of Supplementary Planning Documents. These detailed issues are not considered in this Advice Note.

- This Advice Note is not part of the statutory development plan but it can be used as a consideration in decision making.

November 2009

Contents

1. Introduction…….. 2
   Summary of this Advice Note …….. 3
2. Climate Change and Policy Context…… 4
3. Renewable Energy…….. 6
4. Sustainable Construction
   a. Sustainable Construction for Residential Development 7
   b. Sustainable Construction for Non-Residential Development……..... 9
5. Redevelopment & Refurbishment…….. 10
6. Adaptation Measures…….. 11

Annexes:
1. Where to Find Further Information…….. 12
2. Guidance on Technical Feasibility and Financial Viability... 17
3. Checklist for Planning Applications and Decisions……..... 18
4. South East Plan Policies……..... 19

1. Introduction

1. Responding to climate change is a top priority for the county and district councils in Oxfordshire, both addressing the causes of climate change (mitigation) and adapting to inevitable impacts (adaptation). A key role for the planning system is to secure development which minimises carbon emissions and provides resilience to climate change[1]. The district councils are currently preparing appropriate planning policies for their Local Development Frameworks (LDFs), which will be adopted over the next two or three years. A robust local evidence base is being developed to support LDF policies, with detail and examples to be provided in Supplementary Planning Documents.

2. Pending the adoption of LDFs, this note gives interim advice to applicants and developers about national and regional planning policies to address climate change. The advice note **does not introduce any requirements that are not within the South East Plan,** but does encourage developers and applicants to consider how the environmental impact of developments can be reduced and it provides sources of further information to assist in this process.

3. LDF policies, when they are adopted, may require higher standards of sustainable construction than those in this guidance where local circumstances allow. This Advice Note should help make the transition to the higher requirements that will be introduced through Government policy and emerging LDFs. **Any requirements for higher standards adopted by individual authorities in LDFs as a result of local evidence have greater weight and override this document.**

4. Information on each District Council's LDF can be seen at:

   www.southoxon.gov.uk
   www.cherwell.gov.uk/index.cfm?articleid=3244
   www.oxford.gov.uk
   www.westoxon.gov.uk
   www.whitehorsedc.gov.uk

5. This document does not in itself provide specific 'how to' advice for each local area (See Annex 1 for sources of further information). In particular applicants and developers are encouraged to seek pre-application advice from the Local Planning Authority where the development is within a historical or sensitive environment (for example listed buildings or Conservation Areas). Additional consents may also be required including Listed Building Consent, Conservation Area Approval etc.

[1] Planning Policy Statement: Planning & Climate Change supplement to planning policy statement 1, Communities & Local Government, 2007

Summary of this Advice Note

Renewable energy

- **Residential:** New developments of more than 10 dwellings should secure at least 10% of their energy from decentralised and renewable or low-carbon sources unless, having regard to the type of development involved and its design, this is not feasible or viable. This is to apply until an equal or higher level of renewable energy generation is required through the Code for Sustainable Homes.

- **Non-residential:** New developments of more than 1000m^2 of non-residential floorspace should secure at least 10% of their energy from decentralised and renewable or low-carbon sources unless, having regard to the type of development involved and its design, this is not feasible or viable.

Sustainable construction

- **Residential:** We encourage Code Level 3 of Code for Sustainable Homes. By 2013 all new residential development should be encouraged to meet Code Level 4.

- **Non-residential over 1000m^2:** We encourage that a minimum of BREEAM "Very Good" standard is met.

- **Refurbishment:** We encourage that at least Ecohomes "Very Good" is achieved on refurbishments and EcoHomes "Excellent" by 2013.

Adaptation

- Applicants are encouraged to demonstrate how climate change adaptation issues have been considered and appropriate measures implemented.

2. Climate Change and Policy Context

"There is still time to avoid the worst impacts of climate change, if we act now and act internationally"
(Stern Review on the Economics of Climate Change, 30 October 2006)

6. There is strong evidence that climate change is occurring and that the main cause is man-made emissions[2]. The world is warming and this is predicted to accelerate in future, which will have different impacts around the world[3].

"The South East is forecast to experience some of the most severe impacts due to climate change of any English region over the coming century.

Examples of possible impacts include:
• hotter drier summers.
• milder wetter winters.
• a significant decrease in soil moisture content.
• more frequent extreme high temperatures.
• more frequent extreme winter precipitation.
• increased storminess and wind speeds in winter.
• net sea level rise and increase in sea storm surge height."

(Source: Climate Change Mitigation and Adaptation Implementation Plan for the Draft South East Plan, Prepared for South East England Regional Assembly by Collingwood Environmental Planning and Land Use Consultants, Final Report, March 2006)

7. For further information on the predicted impacts of climate change please see the following: United Kingdom Climate Impacts Programme (UKCIP) http://www.ukcip.org.uk/

8. Policies and priorities for action, both in the UK and internationally, are set out in the Climate Change Programme and the 2007 Energy White Paper.[4] The Government's Climate Change Act 2008 created legally binding targets for reductions in greenhouse gas emissions that must be achieved through action in the UK and abroad. These are reductions of at least 80% by 2050 and reductions in CO^2 emissions of at least 26% by 2020 (from levels in 1990).

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2 Supplement to PPS1: Planning and Climate Change
3 www.carbontrust.co.uk/climatechange/climatechange/default.htm
4 Planning Policy Statement: Planning and Climate Change (2007)

- Policy Context

9. Relevant national and regional policies include the following targets:

   - 30% [5]of UK electricity generation to come from renewable sources by 2020; 15% of all UK energy to come from renewable sources by 2020
   - To achieve 'zero carbon' homes by 2016, with Building Regulations being progressively tightened to reflect the carbon emissions aspects of Code for Sustainable Homes Level 3 by 2010, Code Level 4 by 2013 and Code Level 6 by 2016[6]
   - All new non-residential development should be zero-carbon by 2019

10. The national planning context is set out in Planning Policy Statements (PPSs), in particular:

PPS Planning and Climate Change – Supplement to Planning Policy Statement 1

PPS 22: Renewable Energy

PPS 25: Development and Flood Risk

All available to download at http://www.communities.gov.uk/planningandbuilding/planning/planningpolicyguidance/planningpolicystatements/planningpolicystatements/

11. The South East Plan was adopted in May 2009 sets out the regional planning context.

The relevant policies of the South East Plan are set out in Annex 4 and are referred to throughout this document.

The South East Plan is available to download at http://www.southeast-ra.gov.uk/seplan.html

[5] UK Renewable Energy Strategy July 2009

[6] http://www.communities.gov.uk/publications/planningandbuilding/building-a-greener and http://www.communities.gov.uk/publications/planningandbuilding/summaryresponsezero . Sources of information relating to the Code for Sustainable Homes are listed in Annex 1

3. Renewable Energy

Relevant South East Plan policies: NRM11, NRM12, NRM14, NRM16 (see Annex 4).

South East Plan policy NRM11:

In advance of local targets being set in development plan documents, new developments of more than 10 residential units or 1000m^2 of non-residential floorspace should secure at least 10% of their energy from decentralised and renewable or low carbon sources unless, having regard to the type of development involved and its design, this is not feasible or viable (see Annex 2).

12. The policy above is taken directly from the South East Plan, which states that it is to apply in advance of LDF policies being adopted. A similar policy, using the same target and thresholds, has been applied by many local authorities across England.

13. Its purpose is to encourage renewable energy generation but also to reduce carbon emissions. Applications should demonstrate sufficient renewable energy generation onsite to reduce carbon emissions from energy use by 10%. Carbon emissions are measured to attain Building Regulations and so demonstrating a reduction in carbon emissions will be easier to demonstrate. There are many online tools that can assist in providing baseline figures for different types of development and how reductions can be demonstrated, and these are not repeated here – examples include 'C-Plan' at http://www.carbonplanner.co.uk , the Energy Savings Trust's online tools and the toolkits already established by other authorities (referenced in Annex 1).

14. It would of course be counter productive to encourage on-site renewables if energy is being wasted by a lack of efficiency. Encouragements for efficiency in new developments are set out in the next section.

15. The 10% requirement for residential development will eventually be superseded as building regulation standards are progressively increased to reflect Code for Sustainable Homes standards. The 10% requirement applies until an equal or higher level of renewable energy generation is required through the Code for Sustainable Homes.

16. The requirements may be reduced where the applicant can successfully demonstrate to the Local Planning Authority that the requirements are not technically feasible or financially viable and that the energy efficiency of the building/s has been maximized. Further guidance is provided in Annex 2.

4. Sustainable Construction

4 a). Sustainable Construction for Residential Development

Relevant South East Plan Policies:

CC4, NRM11 (see Annex 4).

South East Plan policy CC4:

The design and construction of all new development, and the redevelopment and refurbishment of existing building stock will be expected to adopt and incorporate sustainable construction standards and techniques. This will include:

i. consideration of how all aspects of development form can contribute to securing high standards of sustainable development including aspects such as energy, water efficiency and biodiversity gain
ii. designing to increase the use of natural lighting, heat and ventilation, and for a proportion of the energy supply of new development to be secured from decentralised and renewable or low-carbon sources
iii. securing reduction and increased recycling of construction and demolition waste and procurement of low-impact materials
iv. designing for flexible use and adaptation to reflect changing lifestyles and needs and the principle of "whole life costing."

17. The supporting text of policy CC4 states that local planning authorities will promote best practice in sustainable construction and will help to achieve the national timetable for reducing carbon emissions from residential and non residential buildings.

18. LDF policies will identify whether we can require specific levels of sustainable construction, taking into account local circumstances.

19. In the meantime we encourage all new residential development to meet at least Code Level 3 of the Code for Sustainable Homes. Nationally, all new dwellings will be required to meet the energy performance standard of Code Level 3 from April 2010 through proposed changes to the Building Regulations (and Code Level 4 by 2013). We encourage applications for large sites (of 200+ homes) to show how Code Level 4 can be reached, as by the time these schemes are implemented, Code Level 4 is likely to be the national requirement.

20. Case studies of homes constructed to a range of Code levels may be of assistance and are available at http://www.communities.gov.uk/publications/planningandbuilding/codecasestudies

Picture: New homes built to Ecohomes "Excellent" standard (at least equal to or above the Code for Sustainable Homes Level 3 equivalent) Bladon, West Oxfordshire

4. b) Sustainable Construction for Non-Residential Development

Relevant South East Plan Policies: NRM11 & CC4 (see Annex 4).

21. Paragraph 18 above sets out our encouragement for sustainable construction for residential developments. This section sets out our encouragement for non residential development to also be constructed to sustainable levels.

22. There is currently no 'Code for Sustainable Homes' equivalent for non residential development. The most widely used industry standard is the Building Research Establishment Environmental Assessment Method[7] (BREEAM). If the Government issues a compulsory requirement for non-residential buildings to meet a sustainable construction standard this will supersede the use of BREEAM in this policy from the date the requirements commence.

23. Using the same principles as set out in South East Plan policy CC4 (above), we encourage all new non-residential development to meet BREEAM standard "Very Good" and developments of 1000 sq m to meet BREEAM "Excellent". We encourage all new non-residential development to meet BREEAM "Excellent" by 2013.

[7] For more information on BREEAM see www.breeam.org/

5. Redevelopments and Refurbishment

Relevant South East Plan policies: CC4 (see Annex 4)

24. Using the principles of policy CC4 as set out on page 7, refurbishments of the existing building stock will be encouraged to adopt and incorporate sustainable construction standards and techniques.

25. We encourage the refurbishment of existing buildings to achieve at least Ecohomes "Very Good" and by 2013 EcoHomes "Excellent"[8].

26. The District Councils' websites contain information on grants available for refurbishments in our local areas – for example see http://www.cherwell.gov.uk/index.cfm?articleid=3763 The Energy Saving Trust's website also offers guidance/grants for refurbishment.[9]

[8] Please note that whilst the Code for Sustainable Homes has replaced the Ecohomes assessment for new buildings in England, the latter assessment will still be used to assess refurbished dwellings. http://www.breeam.org/page.jsp?id=21

[9] www.energysavingtrust.org.uk/

6. Adaptation Measures

Relevant South East Plan policies: CC2 (see Annex 4)

27. Buildings need to be constructed to be better adapted to the changing climate. In the South East it is predicted that we will experience increased temperatures, reduced rainfall and more summer droughts; but we will also experience an increase in heavy rainfall events and we need drainage systems with the capacity to cope.

28. Development can be made more suitable for the changing climate by measures such as the use of natural ventilation, building materials with a high thermal mass to minimise temperature fluctuations, active and passive solar gain, water efficiency, conservation and more sustainable drainage.

29. Applicants are encouraged to demonstrate that climate change adaptation has been considered, appropriate measures implemented and that the new development maximises energy efficiency and passive solar design techniques for both heating and cooling. All development is encouraged to have high energy and water efficiency and to be designed to increase the use of natural light, ventilation and heat.

30. The sourcing of construction materials and their environmental impacts are covered by the Code for Sustainable Homes standards (section 4), but we wish to emphasise that the use of sustainable building materials and the reuse of materials is to be encouraged where appropriate in all developments.

31. Please see Annex 1 for sources of advice on adaptation measures. More locally specific guidance on adaptation measures may be provided in local planning authorities' Supplementary Planning Documents or other documents which may be produced as part of the LDF.

32. Further information on adaptation is also available in the Climate Change Mitigation and Adaptation Implementation Plan produced by the South East England Regional Authority: www.southeast-ra.gov.uk/documents/best_practice/START.pdf

Annex 1: Where to Find Further Information

(i) Local Authority Websites

Cherwell District Council www.cherwell.gov.uk

Oxford City Council www.oxford.gov.uk

South Oxfordshire District Council www.southoxon.gov.uk

Vale of White Horse District Council www.whitehorsedc.gov.uk

West Oxfordshire District Council www.westoxon.gov.uk

Oxfordshire County Council www.oxfordshire.gov.uk

- Local Related Documents/Evidence:

Cherwell District Council: Environmental Strategy for a Changing Climate, 2008 http://www.cherwell.gov.uk/media/pdf/4/4/Environmental_Strategy.pdf

Draft Cherwell Sustainable Community Strategy, July 2009, http://www.cherwell.gov.uk/index.cfm?articleid=1376

Cotswolds AONB Management Plan, http://www.cotswoldsaonb.org.uk/?page=managementplan

Oxfordshire 2030, Oxfordshire Partnership, 2008 (Sustainable Community Strategy) http://content.oxfordshire.gov.uk/wps/wcm/connect/OxfordshirePartnership/Oxfordshire+Partnership/Oxfordshire+2030/

Renewable energy and sustainable construction study, CAG Consultants, September 2009. http://www.westoxon.gov.uk/planning/LDFsustapprevidbase.cfm

West Oxfordshire Environmental Management Strategy 2004-2010, 2004 http://www.westoxon.gov.uk/files/download/1948-1150.pdf

West Oxfordshire Climate Change Policy 2008 – 2012, 2008 http://www.westoxon.gov.uk/files/download/6132-3265.pdf

Vale of White Horse District Council, Sustainable Design & Construction, May 2009.

http://www.whitehorsedc.gov.uk/Planning/Planning_policy/DetailPage-1869.asp

(ii) Policy Guidance

Building a Greener Future Policy Statement, DCLG, July 2007
http://www.communities.gov.uk/publications/planningandbuilding/building-a-greener

Climate Change Mitigation and Adaptation Implementation Plan for the draft South East Plan, for SEERA, March 2006
http://www.southeast-ra.gov.uk/southeastplan/plan/march_2006/implementation_plan/climate_change_implementation_plan-300306-v2.pdf

Climate Change within LDFs, South East England Partnership Board, June 2009, http://www.southeast-ra.gov.uk/planning_development.html

Code for Sustainable Homes and Technical Guides
http://www.communities.gov.uk/planningandbuilding/buildingregulations/legislation/englandwales/codesustainable/

Definition of Zero Carbon Homes and Non Domestic Buildings (Consultation), DCLG (December 2008)
http://www.communities.gov.uk/documents/planningandbuilding/pdf/1101177.pdf

Energy White Paper: 'Meeting the Energy Challenge', Department for Business Enterprise and Regulatory Reform, May 2007
http://www.berr.gov.uk/energy/whitepaper/page39534.html

UK Climate Change Programme, HM Government, 2006
http://www.defra.gov.uk/Environment/climatechange/uk/ukccp/

Our Energy Challenge: Power from the People, Microgeneration Strategy, DTI, March 2006
http://www.berr.gov.uk/files/file27575.pdf

Planning White Paper, Planning for a Sustainable Future, DCLG, May 2007,
http://www.communities.gov.uk/publications/planningandbuilding/planningsustainablefuturewhite

Planning Policy Statement 1 (PPS1) Climate Change Supplement and associated documents
http://www.communities.gov.uk/planningandbuilding/planning/planningpolicyguidance/planningpolicystatements/planningpolicystatements/ppsclimatechange/

Planning Policy Statement 22 (PPS22) Renewable Energy
http://www.communities.gov.uk/planningandbuilding/planning/planningpolicyguidance/planningpolicystatements/planningpolicystatements/pps22/

Planning Policy Statement 25 (PPS25) Development and Flood Risk
http://www.communities.gov.uk/planningandbuilding/planning/planningpolicyguidance/planningpolicystatements/planningpolicystatements/pps25/

Securing the Future - UK Government Sustainable Development Strategy, 7th May 2009
http://www.defra.gov.uk/sustainable/government/publications/uk-strategy/index.htm

South East Plan http://www.southeast-ra.gov.uk/southeastplan/

The Strategy for Energy Efficiency and Renewable Energy, SEERA, 2004
http://www.southeast-ra.gov.uk/energy_strategy.html

The Code for Sustainable Homes – Setting the Standard in Sustainability for New Homes, DCLG, February 2008
http://www.communities.gov.uk/documents/planningandbuilding/pdf/codesustainhomesstandard
Subsequent publications including 'Code for Sustainable Homes Technical Guide' April 2008 and 'Code for Sustainable Homes – Changes to the Technical Guidance' October 2008.

(iii) Renewable Energy

Community Energy: Urban Planning for a Low Carbon Future, TCPA and Combined Head & Power Association, March 2008
http://www.tcpa.org.uk/press_files/pressreleases_2008/20080331_CEG.pdf

Energy Saving Trust http://www.energysavingtrust.org.uk/Generate-your-own-energy and various case studies/publications available through the FAQs page http://est.custhelp.com/cgi-bin/est.cfg/php/enduser/std_alp.php

London Renewables – Integrating renewable energy into new development: Toolkit for planners, developers and consultants (Faber Maunsell September 2004)
http://www.london.gov.uk/mayor/environment/energy/docs/renewables_toolkit.pdf

Meeting the 10 per cent target for renewable energy in housing – a guide for developers and planners (Energy Saving Trust 2006 edition)
http://www.energysavingtrust.org.uk/uploads/documents/housingbuildings/CE190%20-%2010%20per%20cent%20guide.pdf

Oldham Renewables Toolkit – available from Oldham Metropolitan Borough Council www.oldham.gov.uk

SEE-Stats (provides statistics on renewable energy installations)
http://www.see-stats.org/thamesvalley.htm

(iv) Adaptation/Refurbishment

Adapting to climate change: a checklist for development; Guidance on designing developments in a changing climate (2005) GLA
http://www.london.gov.uk/lccp/publications/development.jsp

BRE Green Guide to Specification http://www.thegreenguide.org.uk/

Climate Change Adaptation by Design - A Guide for Sustainable Communities, TCPA (2007)
http://www.tcpa.org.uk/downloads/20070523_CCA_lowres.pdf

Energy Saving Trust www.energysavingtrust.org.uk

Environment Agency (EA) – Climate Change Adaptation
http://www.environment-agency.gov.uk/research/planning/108348.aspx

EA – Flood Risk Standing Advice
http://www.environment-agency.gov.uk/research/planning/82584.aspx

EA – Water Conservation
http://www.environment-agency.gov.uk/research/library/publications/33993.aspx

EA – Wildlife and Green Spaces
http://www.environment-agency.gov.uk/business/sectors/32713.aspx

Homes and Communities Academy, Checklist for planning applications and decisions
http://www.hcaacademy.co.uk/node/410

United Kingdom Climate Change Impacts Programme
www.ukcip.org.uk

(v) Climate Change and the Historic Environment

English Heritage advice on Energy Efficiency and Renewables in the Historic Environment www.climatechangeandyourhome.org.uk

Our Heritage and the Changing Climate, English Heritage (2008)
http://www.english-heritage.org.uk/hc/upload/pdf/south_east_heritage_counts_2008_climate_change.pdf

(vi) General sources of information

Calculating your own carbon footprint:
http://campaigns.direct.gov.uk/actonco2/home/in-the-home.html

Carbon Trust www.carbontrust.co.uk

Climate South East (formerly the South East Climate Change Partnership)
www.climatesoutheast.org.uk

Department for Food and Rural Affairs: www.defra.gov.uk

Energy Saving Trust: www.energysavingtrust.org.uk

Environment Agency www.environment-agency.gov.uk

Low Carbon Buildings Programme & Grants http://www.lcbp.org.uk/home/

Annex 2: Guidance on Technical Feasibility and Financial Viability[10]

33. The South East Plan identifies that policy requirements should be applied flexibly – they should be relaxed if the applicant can demonstrate that it is unviable or unfeasible for a particular development to meet the requirements set out in this guidance document. In an adjoining County, Warwick District Council has considered issues of feasibility and viability in their recent Supplementary Planning Document. Their examples of when the requirements might not be appropriate are considered appropriate here too and are set out below:

    a. It can be demonstrated that the character, location or scale of development would not be technically feasible for any type of renewable energy technology

    b. The installation of renewables would conflict with other planning objectives

        Example:
        Other planning objectives may make it inappropriate to install renewables, such as the preservation of the historic environment. In conservation areas, and in particular on listed buildings, careful design is required to ensure that renewables are installed in a way that is sensitive to the historic and visual character of the building. However, there are examples of where this has been successfully achieved. The applicant will therefore need to demonstrate that all options have been explored and energy efficiency maximised.

    c. It can be demonstrated to the satisfaction of the LPA that implementing the standards set out in this guidance document would not be financially viable and would undermine the delivery of the development:

        Example:

        An example might be some small developments where the development involves other costs such as remediation works.

        In small scale developments the Council would encourage applicants to investigate any financial grants which may be available to support the implementation of renewable energy equipment (see sources of further information in Annex 1, in particular http://www.lcbp.org.uk/home/).

[10] This guidance is based on the guidance developed by Warwick District Council http://www.warwickdc.gov.uk/WDC/Environment+and+planning/Planning/Sustainable+Buildings+SPD.htm

Annex 3: Checklist for Planning Applications and Decisions

South East Sustainability Checklist

The South East Sustainability Checklist has been prepared by SEEDA and others as an aid to preparing and determining planning applications. It relates to a wide range of sustainability issues and can be viewed at: http://southeast.sustainability-checklist.co.uk/ We encourage the use and submission of this checklist.

Oxfordshire Development Control Checklist

We also suggest that Development Control officers, applicants and agents consider the following questions. If any of these questions cannot be answered this does not justify refusing the planning application.

Renewable/Low Carbon Energy

(i) On new developments of more than 10 dwellings of 1000 m^2 of non residential floorspace, has the applicant demonstrated that they will secure at least 10% of their energy from decentralised and renewable or low-carbon sources?

(ii) Alternatively has the applicant demonstrated to the satisfaction of the Local Planning Authority that, having regard to the type of development involved and its design, this is not feasible or viable?

Sustainable Construction for Residential Development

a). Residential

(iii) Has an indication been made that the development will meet the Code Level that we encourage?

b). Non-Residential

(iv) Has an indication been made with the planning application that the development will meet the BREEAM sustainable construction level that we encourage?

Redevelopments and Refurbishment

(v) In applications for refurbishments of properties, does the application demonstrate how the sustainable construction levels we encourage will be met?

Adaptation

(vi) Have applicants demonstrated that climate change adaptation issues have been considered and appropriate measures implemented?

Annex 4 - South East Plan Policies

Climate Change

POLICY CC2: CLIMATE CHANGE

Measures to mitigate and adapt to current and forecast effects of climate change will be implemented through application of local planning policy and other mechanisms. Behavioural change will be essential in implementing this policy and the measures identified.

In addition, and in respect of carbon dioxide emissions, regional and local authorities, agencies and others will include policies and proposals in their plans, strategies and investment programmes to help reduce the region's carbon dioxide emissions by at least 20% below 1990 levels by 2010, by at least 25% below 1990 levels by 2015 and by 80% by 2050. A target for 2026 will be developed and incorporated in the first review of the Plan.

Adaptation to risks and opportunities will be achieved through:

i. guiding strategic development to locations offering greater protection from impacts such as flooding, erosion, storms, water shortages and subsidence
ii. ensuring new and existing building stock is more resilient to climate change impacts
iii. incorporating sustainable drainage measures and high standards of water efficiency in new and existing building stock
iv. increasing flood storage capacity and developing sustainable new water resources
v. ensuring that opportunities and options for sustainable flood management and migration of habitats and species are actively promoted.

1 *The South East Regional Sustainability Framework -'Towards a Better Quality of Life'*, South East of England Regional Assembly and Partners, June 2008 http://www.southeast-ra.gov.uk/documents/sustainability/rsf_2008/rsf_main.pdf

Mitigation, through reducing greenhouse gas emissions, will primarily be addressed through greater resource efficiency including:

i. **improving the energy efficiency and carbon performance of new and existing buildings and influencing the behaviour of occupants**
ii. **reducing the need to travel and ensuring good accessibility to public and other sustainable modes of transport**
iii. **promoting land use that acts as carbon sinks**
iv. **encouraging development and use of renewable energy**
v. **reducing the amount of biodegradable waste landfilled.**

5.2 In recent years, the evidence that significant climate change is occurring on a global scale has become increasingly compelling. These changes will particularly affect England, and research suggests that the South East could be more affected by these changes than other regions.[18] The precise impacts of climate change are not clear, although there will be some opportunities as well as problems. It is, however, already evident that climate change will particularly affect many facets of development and land use. This Plan recognises that challenging measures for mitigation and adaptation relating to climate change will be needed over the Plan period. And Policy CC2 includes a commitment for the spatial development of the region to play its part in pursuing the Government's stated targets for reduction of carbon dioxide emissions.[19] These will not be delivered by this Plan in isolation and require positive planning to implement energy efficiency and renewable measures through waste management, transport and housing initiatives. One key goal will be the achievement of the Government's aim that all new homes should be 'zero carbon' by 2016 [20] and all new non-domestic buildings should follow by 2019.[21]

5.3 Organisations in the South East, including the South East of England Regional Assembly and Climate South East are already at the forefront of tackling climate change issues through the application of spatial planning. ESPACE (European Spatial Planning: Adapting to Climate Events)[22] is a four year European project aimed to promote awareness of climate change and investigate how action to tackle climate change can be supported through spatial planning. In June 2007 the partnership published its final Strategy *'Planning in a Changing Climate'*, which offers practical advice on how spatial planning practitioners can embed climate change considerations into their work. The draft Sustainability Appraisal of this RSS, along with work on water resource issues formed case studies for the initiative. The South East of England Regional Assembly subsequently published a practical guide for planners for local councils, developers, regulators and service providers to inform their plans, and a Climate Change Mitigation and Adaptation Implementation Plan in March 2007.[23]

5.4 The *"New Performance Framework for Local Authorities and Local Authority Partnerships"* contains national indicators for the reduction in CO_2 emissions. Targets against these national indicators have been negotiated through Local Area Agreements (LAAs), and action to meet these targets will be expected to contribute to Policy CC2.

Sustainable Design and Construction

POLICY CC4: SUSTAINABLE DESIGN AND CONSTRUCTION

The design and construction of all new development, and the redevelopment and refurbishment of existing building stock will be expected to adopt and incorporate sustainable construction standards and techniques. This will include:

i. consideration of how all aspects of development form can contribute to securing high standards of sustainable development including aspects such as energy, water efficiency and biodiversity gain
ii. designing to increase the use of natural lighting, heat and ventilation, and for a proportion of the energy supply of new development to be secured from decentralised and renewable or low-carbon sources
iii. securing reduction and increased recycling of construction and demolition waste and procurement of low-impact materials
iv. designing for flexible use and adaptation to reflect changing lifestyles and needs and the principle of 'whole life costing'.

Local planning authorities will promote best practice in sustainable construction and help to achieve the national timetable for reducing carbon emissions from residential and non-residential buildings. There will be situations where it could be appropriate for local planning authorities to anticipate levels of building sustainability in advance of those set out nationally, for identified development area or site-specific opportunities. When proposing any local requirements for sustainable buildings, local planning authorities must be able to demonstrate clearly the local circumstances that warrant and allow this and set them out in development plan documents.

5.7 Sustainable construction can be defined as creating or renewing buildings so that they reduce or avoid adverse impacts on the built and natural environment, in terms of the buildings themselves, their immediate surroundings and the broader regional and global setting. It is a vital tool in combating climate change and reducing the region's ecological footprint. Sustainable construction encompasses the following principles:

- constructing development to reduce non-renewable resource consumption including building materials
- ensuring development, through its construction and use, reduces the use of energy and water and protects valuable soil resources
- eliminating or minimising the use of toxins and the production of waste associated with the construction and use of development.

5.8 At the national scale, Government is committed to amending national Building Regulations to increase energy efficiency in new buildings.[9] It has outlined a timetable to achieve a 20% reduction in carbon emissions from new homes by 2010, and nearly 50% by 2013, before reaching zero carbon in 2016. It announced in the 2008 Budget an ambition for all new non-domestic buildings to be zero carbon from 2019. The Government has also indicated its intention to bring forward an amendment to the Building Regulations to include a requirement for a minimum standard of water efficiency in new homes from 1 October 2009 and will review the Water Supply (Water Fittings) Regulations 1999 later in 2009.[10] The Code for Sustainable Homes - a new national standard for sustainable design and construction of new homes also now operates. Since April 2007 the developer of any new home in England could choose to be assessed against the Code, and rating against the Code has been mandatory since May 2008. It replaces the EcoHomes scheme, developed by the Building Research Establishment. For non-residential buildings, a number of sustainability assessment tools are well established and should be used throughout the region. For waste, Site Waste Management Plans became a legal requirement from April 2008, and require better management of waste on construction and development sites to improve materials resource efficiency.

5.9 The use of sustainability checklists, such as those promoted by Climate Change South East and SEEDA can help deliver new homes that outperform the existing stock in terms of efficiencies in resource use.

5.10 Progress is being made – for example, work to support the setting of zero-carbon targets in Milton Keynes, including the development of low carbon emitting housing on sites such as Oxley Wood, and the deployment of decentralised energy systems by Woking Borough Council. Local authorities are ideally placed to identify where place-specific opportunities may arise to improve energy and water efficiency and promote lower emissions. Planning Policy Statement: *Planning and Climate Change* (PPS1 Supplement) confirms that it could be appropriate for local planning authorities to expect higher levels of building sustainability than the standards in national Building Regulations. Local requirements should be brought forward through development plan documents and focus on known opportunities, with local authorities demonstrating clearly the local circumstances that warrant and allow local requirements. An example is where higher standards of water efficiency would make development in areas of water stress more sustainable. Any local requirements should be specified in terms of the achievement of nationally described sustainable buildings standards. Local authorities also have duties under the Home Energy Conservation Act to improve the energy efficiency of housing stock and there is also considerable scope to improve the efficiency of current public buildings through retrofitting.

5.11 The Government's water strategy for England, *Future Water*, was published in February 2008. It sets out the long-term vision for water and the framework for water management in England. This includes an ambition to reduce per capita consumption of water, through cost-effective measures, to an average of 130 litres per person per day (l/p/d) by 2030.

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9 *Building a Greener Future*, Department for Communities and Local Government, July 2007, and *Water Efficiency in New Buildings – A Consultation Document*,Department for Communities and Local Government, Department for Environment, Food and Rural Affairs, December 2006.

10 http://www.communities.gov.uk/publications/planningandbuilding/water-efficiency

5.12 The Government has set out its programme for introducing water efficiency standards through the Building Regulations and the Code for Sustainable Homes. In particularly water-stressed areas, local planning authorities may seek higher standards for water efficiency than those set nationally, through their local development frameworks. This will need to be proportionate and evidence based, and will be tested through the planning process.

5.13 Other ways of reducing water efficiency in line with *Future Water* include:

- water metering - Water company customers who are metered typically use 10% less water than other customers. All new build is fitted with water meters and water companies in the South East are looking at strategies for existing property. Some companies, such as Folkestone and Dover Water Services Ltd, are already undertaking programmes of metering for all properties, whilst Thames Water is undertaking metering pilots. Southern Water has proposed, in its draft Water Resources Management Plan, to introduce compulsory metering for all properties by 2015; and Portsmouth Water has announced its intention to meter all customers starting in 2010. The Southern Water and Portsmouth Water proposals for metering are dependent on the Secretary of State for the Environment, Food and Rural Affairs being satisfied that the options appraisals in the plans support metering as a cost effective solution to ensuring a sustainable supply of water.
- water efficiency targets – Ofwat have introduced water efficiency targets for water companies for the period 2010 – 2015. The new targets will require water companies to undertake activities to meet annual minimum water saving targets of 23 million litres per day across all water companies.
- review of the Water Fittings Regulations – A review of Water Fittings Regulations is taking place in 2009. The Water Supply (Water Fittings) Regulations will be revised with a view to setting new performance standards for key water using fittings such as WCs, urinals, dishwashers and washing machines. These measures will apply to individual appliances installed in both new and existing houses and non-domestic buildings and are intended to complement the overall performance standard set within the Building Regulations.

5.14 Policies NRM 11-16 contain a more detailed approach to the deployment of renewable energy technologies in the region.

Energy Efficiency and Renewable Energy

9.55 Careful use and creation of energy supplies is a key challenge for the region. Policies to engender more efficient use of energy in new development have already been included in Chapter 5 (Cross Cutting Polices), and in particular Policy CC4. A more detailed policy on energy efficiency and renewable energy in new development is also set out below. In addition, an effective regional spatial strategy can also play a wider co-ordinating role in securing safer, cleaner and more renewable forms of energy supply for future generations, including Combined Heat and Power. The remainder of this chapter therefore provides further policy, guidance and targets for renewable energy deployment. Their effective implementation is imperative if we are to combat climate change, reduce fuel poverty and deliver a more diverse and secure energy supply through reducing reliance on traditional forms of power generation.

9.56 The UK has a legally binding target to reduce emissions of greenhouse gases by 12.5% below 1990 levels in the period 2008-2012. The Government has also set a domestic goal to cut CO^2 emissions by 20% below 1990 levels by 2010. The Kyoto targets must be viewed as only a start as it has been estimated that a 60-70% cut in greenhouse gas emissions will be required by 2050 to stabilise CO^2 levels in the atmosphere. Further targets have been developed and are set out in the Energy White Paper (*Our Energy Future – Creating a Low Carbon Economy)*, published February 2003. The White Paper contains a long term goal that the CO^2 emissions will be reduced by some 60% by about 2050 with real progress by 2020. Policy CC2 of the Plan sets a carbon reduction target for the region and identifies the critical importance of energy efficiency and renewable energy in mitigating climate change.

9.57 The principal national targets of relevance are:

- To meet 10% of UK electricity generation from renewable sources by 2010. The UK will also contribute to a binding EU target of 20% of energy consumption to come from renewable sources by 2020. Consultation is currently underway on proposals for additional measures to generate 15% of electricty from renewable sources by 2020. [15]
- To increase installed capacity of combined heat and power (CHP) generation to 10,000 MW by 2010
- To reduce domestic energy consumption by 30% by 2010
- To ensure that all new homes are built to zero carbon standards by 2016. [16]
- To eradicate fuel poverty among vulnerable households across the UK by 2016-18

9.58 The targets are supported by a range of fiscal measures and regulations in place to encourage improved energy efficiency in new and existing buildings, uptake of combined heat and power and to create more favourable conditions for development of renewable sources of energy. These include:

- capital grants and tax breaks for energy efficiency improvements and CHP
- provision of energy efficiency advice to households and business
- minimum energy efficiency standards set by building regulations (which are being progressively tightened in 2010, 2013 and 2016)
- the Renewables Obligation, which requires all licensed electricity suppliers to supply part of their electricity from eligible renewable energy sources increasing from 3% in 2002-2003 to 15.4% in 2015-16
- the Climate Change Levy, which is charged on all energy supplied to industry and commerce, agriculture and public administration and services

9.59 A significant amount of technical work underpins the policies and targets for renewable energy set out in this RSS. Regional assessments of renewable energy potential have been made, based upon the capacity, opportunities and constraints of the region to accommodate renewable energy. [17]

15 Renewable Energy Consultation, Department for Business, Enterprise and Regulatory Reform, June 2008

16 *Building a Greener Future: Towards Zero Carbon Development*. Department for Communities and Local Government, December 2006

17 *Development of a Renewable Energy Assessment and Targets for the South East*, Government Office for the South East, 2001, *Regional & Sub-regional Assessment to 2010, 2016 & 2026,* South East of England Regional Assembly & AEAT/FPD Savills, 2002

9.60 Although the primary purpose of the policies set out in this Plan is to promote renewable energy and energy efficiency through new development it should also be recognised that there remains scope to encourage further prudent use of energy (for example by using excess heat from electricity generation and industrial processes). In addition there are opportunities associated with the development of renewables in other policy areas, such as rural development (particularly biomass), transport (use of biofuels), economic development (opportunities for new markets, industries and employment) and improving the quality of built environment and urban renaissance (energy efficiency as part of high quality design).

Development Design for Energy Efficiency and Renewable and Low Carbon Energy

POLICY NRM11 DEVELOPMENT DESIGN FOR ENERGY EFFICIENCY AND RENEWABLE ENERGY

Local authorities should:

i. **promote and secure greater use of decentralised and renewable or low-carbon energy in new development, including through setting ambitious but viable proportions of the energy supply for new development to be required to come from such sources. In advance of local targets being set in Development Plan Documents, new developments of more than 10 dwellings or 1000m^2 of non-residential floorspace should secure at least 10% of their energy from decentralised and renewable or low-carbon sources unless, having regard to the type of development involved and its design, this is not feasible or viable**

ii. **use design briefs and/or supplementary planning documents to promote development design for energy efficiency, low carbon and renewable energy**

iii. **work towards incorporation of renewable energy sources including, in particular, passive solar design, solar water heating, photovoltaics, ground source heat pumps and in larger scale development, wind and biomass generated energy**

iv. **actively promote energy efficiency and use of renewable and low carbon energy sources where opportunities arise by virtue of the scale of new development including regional growth areas, growth points and eco-towns**

Local authorities and other public bodies, as property owners and managers, should seek to achieve high levels of energy efficiency when refurbishing their existing stock.

9.61 Policies CC3 and CC4 (Chapter 5) set out cross-cutting policies on resource use and sustainable design and construction. These two policies, together with Policy NRM11 are vital tools in preparing the region for the effects of climate change and the need to reduce the consumption of resources. Policy NRM11 requires local authorities to set ambitious and deliverable targets for the use of decentralised and renewable or low-carbon energy to supply new development. In drawing up and testing local targets and associated thresholds local authorities may wish to consult the technical work developed alongside this Plan. [18]

9.62 Local targets should be set out in development plan documents. Supplementary Planning Documents (SPDs) (including design briefs) may be used to help implement and support adopted policies in DPDs.

18 *The Evidence Base for Sustainable Energy Policies in the South East* (September 2006), Future Energy Solutions and Savills for the South East of England Regional Assembly.
http://www.southeast-ra.gov.uk/southeastplan/publications/research/evidence_base_for_sustainable_energy_policies_v4_sep06.pdf

Combined Heat and Power

POLICY NRM12 COMBINED HEAT AND POWER

Local Development Documents and other policies should encourage the integration of combined heat and power (CHP), including mini and micro–CHP, in all developments and district heating infrastructure in large scale developments in mixed use. The use of biomass fuel should be investigated and promoted where possible.

Local authorities using their wider powers should promote awareness of the benefits of mini and micro-CHP in the existing build stock.

9.63 As well as encouraging the use of efficient design and layout and renewable energy technology in new development Plan can encourage the use of combined heat and power (CHP) and district heating in new buildings. For the purposes of this guidance district heating should be interpreted as including cooling, and that the term 'cooling' includes absorption cooling.

9.64 The Government has set a target for the installation of 10,000 MW of combined heat and power (CHP) generation by 2010. CHP and district heating systems use excess heat from electricity generation (including from renewable fuels) or industry to heat or cool buildings in the locality. Traditional CHP is highly fuel efficient (70-90% compared to 30-50% for conventional heating and electricity generation) and can result in savings in energy use and expenditure. Mini-CHP is applicable at a street scale or for large buildings, and micro-CHP is a replacement for conventional domestic boilers. This uses normally wasted heat to generate electricity. Every 1,000 MW of CHP capacity decreases carbon emissions in the range 0.48 – 0.95 million tonnes a year. CHP plants can be powered by a range of fuels and can vary in size.

9.65 CHP deployment will be most effective where the generation plant is relatively close to the users of the heat, where this includes a mix of uses to even out the pattern of demand for electricity and heat through the day and where the density and layout of development reduces costs of installation of the necessary infrastructure and distribution of heat.

9.66 There is scope, therefore, to encourage provision of CHP (preferably certified as 'good quality' under the CHP quality assurance scheme) in association with new and existing developments and, in particular, large scale regeneration or mixed use schemes. It may also have the potential for use in remote rural areas that do not have access to mains gas supplies.

Renewable Energy

9.67 Most renewable energy developments themselves will require planning permission as they will be below the 50 MW threshold above which consent is required from the Department for Business, Enterprise and Regulatory Reform (BERR) under Section 36 of the Electricity Act 1989.

9.68 To date, the South East has experienced a very low level of renewable energy development. This situation is likely to change. The introduction of measures such as the Renewables Obligation and the Climate Change Levy are providing strong financial stimulus for the development of markets for renewable energy. Capital grants also encourage the development of a range of renewable energy resources and technologies, particularly biomass, offshore wind and photovoltaics. In addition, it can be expected that the UK will continue to face increasingly demanding carbon reduction targets which will be met in part through improving efficiency and an increasing contribution to energy supplied from renewables.

9.69 The assessments of renewable energy potential in the region indicate what is possible and could be delivered. However, technological, planning and commercial considerations will guarantee that the actual pattern of deployment will vary.

9.70 Local development documents and other strategies should reflect this potential and provide a framework for renewable energy development, anticipating the likely range and scale of developments which may come forward over the short, medium and longer terms and encouraging appropriate development.

Regional Renewable Energy Targets

POLICY NRM13: REGIONAL RENEWABLE ENERGY TARGETS

The following minimum regional targets for electricity generation from renewable sources should be achieved by the development and use of all appropriate resources and technologies:

Year/ timescale	Installed Capacity (MW)	% Electricity Generation Capacity
2010	620	5.5
2016	895	8.0
2020	1,130	10.0
2026	1,750	16.0

The renewable energy resources with the greatest potential for electricity generation are onshore and offshore wind, biomass, and solar. The renewable energy resources with the greatest potential for heat generation are solar and biomass.

9.71 Regional targets, reflecting the assessment of potential for renewable energy, have been established to ensure that the region contributes towards the UK targets for renewable energy.

9.72 Although only illustrative of what is possible, the targets identify the potential mixture and relative scale of different resources that have the best prospects of coming forward and providing synergies with other policy areas.

9.73 The potential for generation of electricity from renewable energy sources is presented in the targets in Policy NRM13 as installed capacity in MegaWatts (MW) and as a percentage of total capacity. The percentages are based on current installed electricity generation capacity, with an assumption that any growth in demand or consumption of electricity is met by additional generation capacity in the region from renewables only or by imports to the region, and no increase in conventional generation capacity in the region. Improvements in efficiency will help to reduce the growth in demand and consumption.

9.74 It is estimated that by 2026, if the target is met, renewable sources would provide enough electricity for one million homes. This would result in an annual saving of almost two and a half million tonnes of carbon dioxide through displacing generation from conventional fossil fuel sources. The use of renewably generated heat would result in even greater savings. Almost 12% of electricity output would be generated from renewable sources by 2026. It should be noted that this measure of output will be different to figures for installed capacity due to some fluctuations in inputs (for example, varying wind speeds).

9.75 The targets relate only to electricity generation, reflecting the national targets. However, heat generation (from biomass, solar and geothermal/ground source) and use, and the development and use of liquid biofuels in transport, although not quantified in the targets, will also be important in offsetting fossil fuel energy generation and should be encouraged. Heat generation and use is also often the most efficient and cost-effective means of using renewable energy.

9.76 The assessments of renewable energy potential identify offshore wind, onshore wind, and biomass as presenting the greatest opportunities for the generation of electricity and heat over the short to medium terms. In the longer term (between 2016 and 2026), solar generated electricity (photovoltaics), wave and tidal stream energy are identified as having increasing potential.

9.77 With the proviso that the waste hierarchy will be applied the targets include energy derived from biomass waste and from thermal treatment and anaerobic digestion. Biomass waste includes discarded woody waste, including waste from gardens and parks, paper and card, kitchen and food wastes and textiles. Non-waste biomass includes wood, agricultural and forestry residues and energy crops. The assessment of potentially available biomass waste has taken account of the priority afforded to recycling and composting in national and regional waste management policy, including the draft Regional Waste Management Strategy. Therefore it is expected that the targets will be largely met and exceeded through the use of non-waste resources.

9.78 Waste management decisions will be taken on the basis of waste policy and need to consider the waste hierarchy (prioritising reduction, re-use and recycling) and the management technique representing the Best Practicable Environmental Option. Waste management decisions should not be driven by the renewable energy targets but can contribute towards their delivery.

9.79 Landfill gas also contributes to the achievement of the Renewable Energy target although energy from this technology may reduce in the long-term as a result of waste policy.

Spatial Implications – Sub-regional Targets

POLICY NRM14 - SUB-REGIONAL TARGETS

Development plans should include policies, and development proposals as far as practicable should seek to contribute to the achievement of the following regional and indicative sub-regional targets for land-based renewable energy (see Diagram NRM5):

Sub-region	2010 Renewable Energy Target (MW)	2016 Renewable Energy Target (MW)	Champion
Thames Valley and Surrey	140	209	TV Energy
East Sussex and West Sussex	57	68	ECSC
Hampshire and Isle of Wight	115	122	Hampshire CC & Isle of Wight Council
Kent	111	154	Kent Energy Centre

Local authorities should collaborate and engage with communities, the renewable energy industry and other stakeholders on a sub-regional basis to assist in the achievement of the targets through:

i. **undertaking more detailed assessments of local potential**
ii. **encouraging small scale community-based schemes**
iii. **encouraging development of local supply chains, especially for biomass**
iv. **raising awareness, ownership and understanding of renewable energy**

9.80 Sub-regional targets provide an indication of the relative potential for development of different resources at sub-regional level. These indicate that the distribution of resources and potential for development is reasonably even throughout the region with significant opportunities for the deployment of all of the major resources – wind, biomass and solar – in all parts of the region.

9.81 The clear implication is, therefore, that there is potential for the development of all major resources and technologies (apart from those requiring coastal or offshore locations) throughout the region and that all local authorities should include policies in their development plans to contribute to the regional targets through supporting the development of all renewable energy resources.

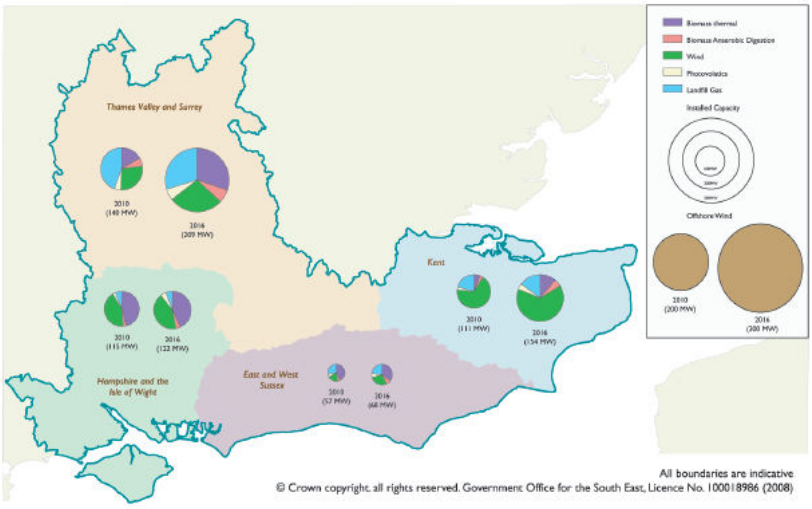
9.82 Overall, Kent, Hampshire and the Isle of Wight, and the Thames Valley and Surrey appear to have the greatest potential for onshore wind development and also for the installation of photovoltaics reflecting the likely rate of new development. The Thames Valley and Surrey sub-region appears to have the greatest potential for biomass fuelled electricity generation, reflecting the existing woodland resource and the potential for coppice in the sub-region and in adjoining counties and regions. Unlike other resources that may only be exploited where they occur, such as wind, biomass fuel can be transported some distance and so the location of electricity and/or CHP plants is more flexible than other resources and difficult to specify.

9.83 The potential and targets for each sub-region are illustrated in Diagram NRM5. These are based on the broad regional assessments of resource availability.

9.84 More detailed local consultation and assessments of potential should be undertaken to refine these indicative targets and define more specific local targets, as has been undertaken, for example, by the Isle of Wight Council. This should involve identification of the technical availability as well as with the practicability of development of the full range of renewable energy technologies, the opportunities, and constraints to their development.

Diagram NRM4

Indicative sub-regional Land-Based and Offshore Potential, 2010-2016



9.85 Offshore wind, tidal stream and wave power have not been included in the sub-regional targets as development will be outside of normal local authority planning jurisdiction. For offshore wind, the consenting and leasing process is managed by the Crown Estate and BERR. This involves the identification of strategic areas for development and strategic environmental assessment. Local authorities will, however, be consultees in the process. The Thames Estuary is one of the three strategic areas in England identified for offshore wind development in the short term as future developments will be expected in this part of the region. Onshore infrastructure, such as sub-stations, may require planning permission. The assumed contribution to the regional targets from offshore wind/marine technologies is 200MW at 2010 and 300MW at 2016.

9.86 Sub-regional champions have been identified to take forward work on compiling more detailed assessments in each of the sub-regions. It is expected that the results of this work will allow a more detailed geographical breakdown of targets and relative potential of different renewable energy resources. Delivery will be monitored through See-Stats (www.see-stats.org).

Planning for Renewable Energy Resources

POLICY NRM15 - LOCATION OF FOR RENEWABLE ENERGY DEVELOPMENT

Local Development Documents should encourage the development of renewable energy in order to achieve the regional and sub-regional targets. Renewable energy development, particularly wind and biomass, should be located and designed to minimise adverse impacts on landscape, wildlife and amenity. Outside of urban areas, priority should be given to development in less sensitive parts of countryside and coast, including on previously developed land and in major transport areas.

The location and design of all renewable energy proposals should be informed by landscape character assessment where available. Within areas of protected and sensitive landscapes including AoNBs or the national parks development should generally be of a small scale or community-based. Proposals within or close to the boundaries of designated areas should demonstrate that development will not undermine the objectives that underpin the purposes of designation.

9.87 Given the distribution of renewable resources and potential across the region, it is expected that renewable energy developments of all types will also come forward throughout the region. The region's potential will most likely be realised through a mixture of developments of different types and scales and integration of technologies into buildings. This could translate into a total of around 140 individual schemes (plus photovoltaic installations) by 2010, increasing to around 250 schemes (plus photovoltaics) by 2016 and 2026. This implies development of up to three wind energy clusters and four single large turbines per county area over the next 20 years plus at least one larger scale wind farm. Similarly, it may imply construction of one large biomass plant in each county area over the same time period and a larger number of smaller scale developments.

9.88 District councils and unitary authorities will be the planning authorities for the majority of land-based renewable energy schemes. Local development documents, together with supplementary planning documents should reflect the availability of different resources and include guidance on the circumstances in which renewable energy developments will be acceptable in principle and be most likely to be permitted, taking into account the need to adapt to changing technologies.

9.89 Development of renewable energy infrastructure, particularly wind turbines,should be located and designed so as to avoid conflict with landscape and wildlife conservation, as set out in PPS7 (Sustainable Development in Rural Areas) and PPS9 (Biodiversity and Geological Conservation). The scale and number of developments forecast in the assessments indicates that this should be achievable. Civil aviation and military requirements may also constrain wind development in certain areas.

9.90 Wind energy may only be exploited where it is sufficiently high. An average wind speed of 6.5 metres per second (14.5 mph) has been generally regarded as the cut-off point for commercially viable developments although development at lower wind speeds (6 m/s) is likely to become more feasible with technological advances and price support provided by the Renewables Obligation.

9.91 Many of the areas with the highest wind speeds are on higher ground, within sensitive and protected countryside, including Areas of Outstanding Natural Beauty (AoNBs) and the national parks in the New Forest and proposed in the South Downs. However, there are large parts of the region where there are no nationally important landscape or wildlife designations and wind speed is relatively high. It is expected that all local authorities in the region will accommodate at least one wind energy development over the next two decades.

9.92 Priority should be given to the development of renewable energy schemes, particularly larger scale ones, in less sensitive areas including previously developed and industrial land and areas where there is already intrusive development or infrastructure, for example major transport corridors. This could help to reduce the potential for conflict and delay in determining applications on visual impact and amenity grounds.

9.93 However, wind and other renewable energy development should not be precluded in AONBs and the national parks as there will be locations where small scale construction e.g. a wind development of between one and four turbines not generating more than 5MW, can be accommodated where conflict with statutory landscape protection purposes set out in PPS7 can be avoided or minimised through careful siting and design, including reducing the cumulative impact of a number of individual schemes.

9.94 The application of landscape character assessment, drawing on advice from Natural England, may help in identifying and developing guidance on location, scale and design of developments, particularly in areas of sensitive landscape. Renewable energy developments should not necessarily conflict with the objectives of Green Belt.

9.95 For biomass, issues to consider include the transportation of biomass fuel to the plant, the scale and design of buildings and the feasibility of combined heat and power. Operation of such plants, including monitoring and control of emissions, will be regulated by the Environment Agency to strict standards. Co-firing of conventional fossil fuel plants with biomass is likely to contribute to the achievement of the targets, at least in the short term, and should help create a market for, and stimulate, further development of biomass fuels.

9.96 Use of biomass fuel sourced close to the plant should be encouraged to maximise benefits in terms of carbon savings and rural development and reduced transport distances. Planting of energy crops has the potential to change landscape character and affect biodiversity, positively or negatively, depending on location. This is outside of planning control but the source of fuel, and location of plant in relation to this (its proximity) should be a consideration in determining proposals.

9.97 Community-based and owned projects, in which communities develop and operate projects and in which economic benefits are retained within a locality, will be important in improving understanding and acceptance, and enabling a steady build up of renewables in the region. In particular, such projects can demonstrate the wider benefits that may result from renewable energy projects, including employment creation and diversification and landscape management, and may be appropriate in more sensitive areas of countryside.

Development Criteria

POLICY NRM16 - DEVELOPMENT CRITERIA

Local authorities through their local development frameworks and decisions should support in principle the development of renewable energy. Local development documents should include criteria-based policies that, in addition to general criteria applicable to all development, should consider the following issues:

i. **the contribution the development will make towards achieving national, regional and sub-regional renewable energy targets and carbon dioxide savings**
ii. **the potential to integrate the proposal with existing or new development**
iii. **the potential benefits to host communities and opportunities for environmental enhancement**
iv. **the proximity of biomass combustion plant to fuel source and the adequacy of local transport networks**
v. **availability of a suitable connection to the electricity distribution network**

9.98 All proposals should be considered on their individual merits with regard to scale, location, technology type and cumulative impact. Identification of criteria may aid decision-making when assessing proposals coming forward.

9.99 However, it is essential that such criteria are phrased in a positive way and are seen as supporting other policies that generally encourage renewable energy development. The provisions and criteria of other policies, for example for protection of biodiversity, landscape and amenity will apply to all developments and should be considered in addition to those set out below. In addition, these issues will be part of environmental assessments undertaken for such developments.