

## **Advice Note for Submitting Energy & Resources Statement**



### **1.0 Introduction**

- 1.1 The council has a legal requirement through the Planning Act 2008 to include policies within the Local Development Framework that make a contribution to mitigating the effects of climate change.

### **2.0 Poole Core Strategy: Preparing for Climate Change**

- 2.1 Strategic Objective 8 of the Core Strategy seeks to address the issue of climate change. Key outcomes, amongst others, include 'Reducing Poole's carbon footprint' and 'Increasing the supply of energy from renewable resources'. Core Strategy Policies PCS31, PCS32, PCS33, PCS35 provide a framework, including targets, that places a requirement on development proposals to demonstrate how these policies are being addressed in schemes submitted to the Local Planning Authority.

### **3.0 Key requirements of Climate Change Policies**

- 3.1 The policies set new standards for energy efficiency and renewable energy in development. This applies to both new residential and non-residential development.

The key requirement of Policy PCS32 – Sustainable Homes is:

All new residential development should secure an element of their energy demand from decentralised and renewable or low carbon sources. There is a minimum requirement for 1-9 dwellings of 10% of their energy demand to be met by renewable sources and for 10 or more dwellings, 20% of energy to be generated by renewable sources.

- 3.2 The key requirement of Policy PCS33 – Environmental Performance of Commercial Buildings (which includes retail, office, light industrial factories and workshops, healthcare buildings, educational establishments and multi-residential buildings such as sheltered housing, student halls of residence and hostel accommodation), is also to meet a proportion of their energy demand from decentralised or renewable or low carbon sources as follows:

The minimum requirement is for 10% of energy demand to be met in developments up to 1,000 square metres (net) floorspace and for the development to achieve a "Very Good" rating under BREAAAM criteria. For developments over 1,000 square metres (net) floorspace, there is a minimum of 20% of its energy demand to be met by renewable sources and an "Excellent" rating under BREAAAM.

- 3.3 Policy PCS35 – Energy & Resource Statements, sets out five objectives in relation to energy, sustainable buildings, SUDs and flood risk. There is an expectation that development will comply with criteria in the Code for Sustainable Homes or BREAAAM at a level appropriate to the development proposal, unless it can be demonstrated that there are exceptional reasons as to why this is not achievable.
- 3.4 The Energy & Resources Statement can be contained in a separate report or included as part of the Design & Access Statement.

## 4.0 Purpose and Implementation

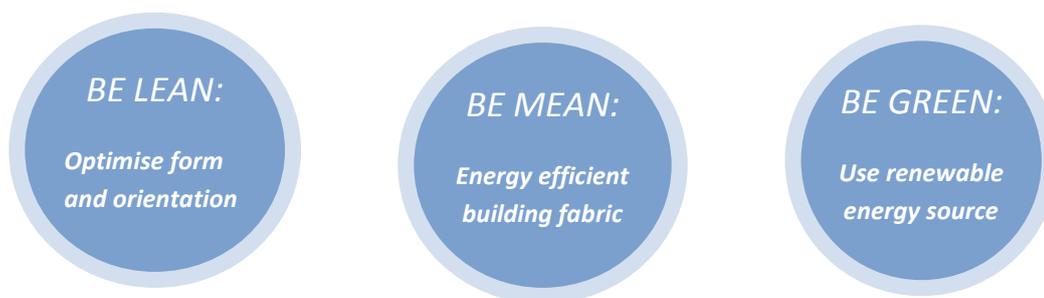
- 4.1 This advice note has been prepared by Planning & Regeneration Services. It comes into effect from 1<sup>st</sup> April 2010. Failure to provide an Energy & Resources Statement may delay validation of a planning application.

In providing an understanding of the expectations of supporting information required to mitigate the effects of climate change in the built environment, this advice note has two main purposes:

- To communicate the council's recommended approach to achieving sustainable design which reduces energy demand, is energy efficient and incorporates a supply of energy from renewable sources.
- To serve as a gateway document that provides applicants with signposts to key documentation and further information sources.

## 5.0 Council's Recommended Approach

- 5.1 Energy & Resource Statements should take a site-wide approach and demonstrate how a proposed scheme has considered the development in the following sequential order:



- 5.2 The first stage of this hierarchy should consider how the building has been designed to reduce electricity consumption (**lean building**). Use of passive design ensures daylight to living rooms is maximized, making use of common walls between dwellings to minimize heat loss and orientating a building to maximize solar gain.

- 5.3 The next stage is to ensure the design incorporates a thermally efficient building fabric (**mean building**) which will achieve a reduction in U-values of walls and floors beyond a Building Regulations Part L compliant scheme. Electrical appliances and glazing should be "A rated". Boilers and balanced radiators with individual controls, sensors detecting movement and operating variable speed fans. Lighting controls, metering and ventilation heat recovery systems are incorporated where possible.

These two approaches will ensure a thermally efficient building with reduced energy costs.

- 5.4 The final stage is to generate energy from renewable sources using appropriate low carbon technology (**green building**). Site constraints often dictate the type of microrenewable technology that is chosen for a scheme.

Examples include:

Solar water heating - This requires a roof between 35-45 degrees, facing between SE & SW, avoiding any shading from buildings and trees. Evacuated tubes are thermally very efficient during warmer months and can provide 80%-100% of domestic hot water (not heating) in summer.

Heat pumps - These harness solar energy stored in the ground or air and whilst they need electricity to drive the compressor and raise heat to a comfortable radiator temperature, 1kWh of electricity provides 3-4 kWh of useful heating. Ground source heat pumps are superior to air source heat pumps in terms of efficiency but they are constrained by the large site area needed to bury coiling into the ground. However they have limited visual impact and are ideal for under floor heating in new buildings.

Biomass heating - Suitable for houses off the gas grid, farms, schools and community facilities. These are very efficient with low emissions and vary in type from boilers that take a variety of fuel from wood chips, pellets or logs to gas and oil.

Photovoltaics - Use semi-conductor cells to convert light into electricity, they work best in direct sunlight. Whilst a typical domestic system requires 20sqm of south facing roof space, they can be ground mounted.

A full set of renewable energy information sheets are provided in the following link <http://www.dorsetforyou.com/index.jsp?articleid=387643>

Local advice is provided by Dorset Energy Advice Centre <http://www.deac.co.uk>

## 6.0 The Energy & Resources Statement

- 6.1 **Policy PCS35(i)** requires that supporting evidence should show how the development meets the relevant Code for Sustainable Homes or in the case of non residential development, the BREAAAM standards. Instructing a suitably qualified assessor at an early stage in the design is recommended since a pre-assessment is considered best practice in achieving the required code level or BREAAAM standard.

Code for Sustainable Homes can be accessed through the DCLG website at:

[http://www.planningportal.gov.uk/uploads/code\\_for\\_sustainable\\_homes\\_techguide.pdf](http://www.planningportal.gov.uk/uploads/code_for_sustainable_homes_techguide.pdf)

BRE Environmental Assessment Method website at: <http://www.breem.org/>

- 6.2 **Policy PCS35(ii)** requires supporting evidence to demonstrate where the scheme has integrated sustainable urban drainage systems. It is recommended that this is considered at an early stage of the design to enable SUDs to be incorporated by providing for sufficient landscaping to mitigate the effects of high rainfall. Further guidance is available from:

[http://www.boroughofpoole.com/downloads/assets/Supplementary\\_Planning\\_Guidance\\_-\\_Sustainable\\_Urban\\_Drainage\\_Systems\\_\(SuDS\).PDF](http://www.boroughofpoole.com/downloads/assets/Supplementary_Planning_Guidance_-_Sustainable_Urban_Drainage_Systems_(SuDS).PDF) The SUDS Manual (CIRIA 2007) can be obtained from [www.ciria.org/downloads.htm](http://www.ciria.org/downloads.htm)

- 6.3 **Policy PCS35(iii)**. An assessment of flood risk will be required (where appropriate) to show how design has addressed flooding issues and the development's resilience to it. PPS25 provides further guidance.

<http://www.communities.gov.uk/publications/planningandbuilding/pps25floodrisk>

- 6.4 **Policy PCS35(iv)** Lifetime Homes Standards comprise 16 design features which provide accommodation that is flexible to adaptation. The website provides further advice as to how to achieve these standards.

[http://www.lifetimehomes.org.uk/lifetime\\_docs/LTH%20Booklet.pdf](http://www.lifetimehomes.org.uk/lifetime_docs/LTH%20Booklet.pdf)

6.5 **Policy PCS35(v)** Certain locations and density of development are suitable for the sharing of Combined Heat and Power fuelled by renewable technology such as biomass boilers. Where this opportunity exists, the council recommends that full advantage is taken of exploring this issue.

**More information:**

- Low Carbon Buildings Programme [www.lowcarbonbuildings.org.uk](http://www.lowcarbonbuildings.org.uk)
- Carbon Impact Assessment [www.carbonplanner.co.uk/](http://www.carbonplanner.co.uk/)
- Energy Saving Trust case studies [www.est.org.uk/myhome](http://www.est.org.uk/myhome)
- Renewable Energy Association [www.r-e-a.net](http://www.r-e-a.net)
- Solar Trade Association [www.greenenergy.org.uk/sta](http://www.greenenergy.org.uk/sta)
- Ground Source Heat Pump Association [www.nef.org.uk/gshp](http://www.nef.org.uk/gshp)
- British Wind Energy Association [www.bwea.com/small](http://www.bwea.com/small)
- British Hydropower Association [www.british-hydro.org](http://www.british-hydro.org)
- Biomass Energy Centre [www.biomassenergycentre.org.uk](http://www.biomassenergycentre.org.uk) 01420 526197
- Woodfuel South West Advice Service Tel: 08450 740674
- Woodfuel suppliers [www.logpile.co.uk](http://www.logpile.co.uk) Tel: 01908 665555
- Integrating Renewable Energy into new developments: Toolkit for planners, developers and Consultants <http://www.london.gov.uk/mayor/strategies/energy/index.jsp>

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