Climate Change

All planning applications are required to include a statement to explain how the proposal reduces carbon emissions and incorporates measures to reduce its contribution to climate change. The statement should show that you have considered Core Strategy policy CC1, putting forward how you plan to take action in implementing the following principles:

A. Making the most efficient use of land, buildings and natural resources including site layout and building design

Energy consumption can be significantly reduced through the location of development, site layout and building design, the type of materials used, the use of existing and new resources and the efficient management of the construction process. Your supporting statement should outline how the development has considered these issues.

B. Taking account of the energy hierarchy by considering Levels 1-4

Policy CC1 (B) requires that all developments take account of the energy hierarchy. The energy hierarchy (as shown on page 14 of Climate Change and Sustainable Building SPD) reduces CO2 emissions by lowering energy demands for heating and cooling. The energy hierarchy has four levels:

Level 1 – Reduce the need for energy

The energy hierarchy places great emphasis on Integrated Passive Design. Key methods include:

- *Orientation* – making best use of high summer sun angles & low winter sun angles on southern exposures;
- *Thermal mass* – to store heat in the winter and act as a heat sink for cooling in the summer;
- *Natural ventilation* – designing controlled flows through buildings for cooling;
- *Zoning* – to allow different thermal requirements to be compartmentalised.

Level 2 – Using energy more efficiently

Using energy more efficiently means not wasting energy or using more than is required. The following potential energy efficiency measures should be considered:

- High levels of insulation.
- Utilising appropriate forms of glazing.
- Installing heating controls.
- Using energy efficient heating and heat recovery systems.
- Adding draught strips on doors, windows & letter boxes.
- Fitting chimney balloons.
- Installing zoned low energy lighting and presence sensors.
- Replacing doors in existing buildings.

- Upgrading to a high efficiency condensing boiler.
- Adding a sun pipe/tunnel.

Level 3 – Supplying energy efficiently

Supplying energy efficiently refers to connecting to existing low carbon heat networks. Connection to, or development of, a mini district heating network can be a carbon efficient means of energy supply.

Level 4 – Use low carbon and renewable energy

Once the energy needs of a new building have been minimised through design, consideration needs to be given as to how the remaining energy needs can be met through:

- Heat pumps: ground source heat pumps and air source heat pumps.
- Wood burning stoves/biomass boilers.
- Solar thermal/hot water panels.
- Solar photovoltaic/electric panels.
- Hydro power, small scale water turbines.
- Anaerobic digesters.

There are opportunities in all types of development to use low carbon and renewable energy sources, however what is appropriate will depend on the physical nature of the building, its site characteristics and the surrounding landscape.

C. Directing development away from flood risk areas, reducing overall risk from flooding within the National Park and areas outside it, upstream and downstream

All forms of flooding and their impact on the natural and built environment are material planning considerations. Core Strategy policy CC5 sets out the overall policy on flood risk, with further guidance provided in the SPD.

The Local Validation List requires a Flood Risk Assessment (separate to your Supporting Statement on reducing contribution to climate change). See the Flood Risk Assessment guidance note for further detail.

Sustainable Urban Drainage Systems (SuDS)

SuDS remove water quickly and efficiently and should be included in the original design and layout of a proposal wherever possible. The approach used will differ with each application and the circumstances of each site.

D. Achieving the highest possible standards of carbon reductions in all developments

The requirements set out in Core Strategy policy CC1 are the minimum requirements. You must demonstrate through the Supporting Statement that you have given consideration to these as a means of reducing carbon emissions in your development.

However, all new development should attain the highest possible standards of carbon reduction, meaning that you must take every opportunity to reduce carbon and build sustainably.

E. Achieving the highest possible standards of water efficiency in all development

Water conservation methods include:

- Ensuring that the design of buildings and their surrounding landscape maximises water efficiency and minimises water wastage:
  - Can rainwater be collected from the roof for outdoor use? (E.g. water butts installed for garden irrigation).
  - Have you considered adding rainwater harvesting measures to collect rainwater and store it for use internally? (e.g. WC flushing)
  - Have you considered providing a system to re-use grey-water (waste water from baths, showers and basins) for irrigation or WC flushing?
  - Have you specified water-conserving fittings for taps/sanitary ware? (E.g. low flush toilets, spray taps, water-saving showers…)
- Identifying opportunities to use water more efficiently during the construction of the development.
- Designing surface water drainage systems to take into account future changes in rainfall.