

equipment, building controls and good management practices, including green leases.

- 5.22a Demand side management is a further way developments can minimise their carbon dioxide emissions as well as minimise the need for additional generating and distribution infrastructure. Demand side management enables non-essential equipment to be turned off or to operate at a lower capacity to respond to the wider availability of energy in the network – that is, the wider energy demand and generation across the network. Developments are encouraged to include infrastructure to enable demand side management.
- 5.23 Where it is demonstrated that the specific targets for carbon dioxide emissions reduction cannot be fully achieved on-site the shortfall may be provided off-site, but only in cases where there is an alternative proposal identified and delivery is certain, or where funding can be pooled to support specific carbon dioxide reduction projects or programmes. Further guidance on the criteria for off-site provision, the types of acceptable projects and programmes and a London wide funding scheme will be set out for boroughs.

POLICY 5.3 SUSTAINABLE DESIGN AND CONSTRUCTION

Strategic

- A The highest standards of sustainable design and construction should be achieved in London to improve the environmental performance of new developments and to adapt to the effects of climate change over their lifetime.

Planning decisions

- B Development proposals should demonstrate that sustainable design standards are integral to the proposal, including its construction and operation, and ensure that they are considered at the beginning of the design process.
- C Major development proposals should meet the minimum standards outlined in the Mayor's supplementary planning guidance and this should be clearly demonstrated within a design and access statement. The standards include measures to achieve other policies in this Plan and the following sustainable design principles:
- a minimising carbon dioxide emissions across the site, including the building and services (such as heating and cooling systems)
 - b avoiding internal overheating and contributing to the urban heat island effect
 - c efficient use of natural resources (including water), including making the most of natural systems both within and around buildings

- d minimising pollution (including noise, air and urban runoff)
- e minimising the generation of waste and maximising reuse or recycling
- f avoiding impacts from natural hazards (including flooding)
- g ensuring developments are comfortable and secure for users, including avoiding the creation of adverse local climatic conditions
- h securing sustainable procurement of materials, using local supplies where feasible, and
- i promoting and protecting biodiversity and green infrastructure.

LDF preparation

- D Within LDFs boroughs should consider the need to develop more detailed policies and proposals based on the sustainable design principles outlined above and those which are outlined in the Mayor's supplementary planning guidance that are specific to their local circumstances.

- 5.24 The principles underlying sustainable design and construction reflect a number of policies in this Plan. In particular they seek to improve the environmental performance of buildings, including consideration of climate change mitigation and adaptation. Policy 5.3 is intended to ensure that buildings minimise carbon dioxide emissions; are efficient in resource use; protect the environment; recognise the uniqueness of locations; are healthy and adaptable; and make the most of natural systems including, for example, the use of passive solar design or local ecosystems. It should be considered alongside policies dealing with architecture and design in Chapter 7.
- 5.25 Design features such as green roofs (see Policy 5.11) can enhance biodiversity, absorb rainfall, improve the performance of the building, reduce the urban heat island effect and improve the appearance of a development. Use of appropriate materials is also key, and where practicable those with a high embodied energy (see glossary) should be avoided. The Mayor's supplementary planning guidance on Sustainable Design and Construction and on Housing reflect key sustainable design principles and outline the standards that are applicable to all developments. These standards should be considered early in the design process and should be addressed in the design and access statement to show how they have been integrated into the development proposal.
- 5.27 In support of the London Housing Strategy the Mayor has produced a *Housing Design Guide*¹⁷⁰ (see Chapter 3), which provides further guidance on the standards outlined in the Mayor's Housing Supplementary Planning Guidance.
- 5.28 Sustainable construction is also a key consideration. The Mayor's supplementary planning guidance on Sustainable Design and Construction outlines key principles

¹⁷⁰ Mayor of London. London Housing Design Guide. (LHDG). LDA, 2010 - this has been replaced by the 2016 Housing SPG.