

Development Management Update



Submission City Plan 2013

Including Further Modifications (October 2015)
From Section Four. City Wide Policies: A Sustainable City

CP8 Sustainable Buildings

The council will seek that all new development incorporate sustainable design features to avoid expansion of the city's ecological footprint, help deliver the principles of the One Planet approach, radical reductions in greenhouse gas emissions, particularly CO₂ emissions, and mitigate against and adapt to climate change.

Unless it can be demonstrated that doing so is not technically feasible and/or would make the scheme unviable:

1. All development will be required to achieve the minimum standards as set out below unless superseded by national policy or legislation;

Residential (New Build)		
Energy Performance	19% carbon reduction improvement against Part L 2013 ¹	
Water performance	Water efficiency 'optional' standard ²	
Non – residential	Development Size	
	Non-major	Major and Greenfield
BREEAM	Very Good	Excellent

¹ This standard is equivalent to Code for Sustainable Homes level 4 in energy use. See paragraph 4.84-4.86 for guidance on demonstrating this standard.

² The 'optional' enhanced national standard is defined within the 2015 Approved Document G, Building Regulations 'Sanitation, hot water safety and water efficiency' March 2015, page 15, G2(3). At 2015 this is defined as consumption 2210 litres per person per day to be demonstrated http://www.planningportal.gov.uk/uploads/br/BR_PDF_AD_G_2015.pdf

2. All development proposals including conversions, extensions and changes of use will be expected to demonstrate how the development:

- a. addresses climate change mitigation and adaptation;**
- b. contributes to a reduction in the city's current level of greenhouse gas emissions by delivering significant reductions in fuel use and greenhouse gas emissions via: passive design and orientation; fabric performance; energy efficiency measures; and low carbon solutions;**
- c. facilitates on-site low or zero carbon technologies, in particular renewable energy technologies³;**
- d. connects, makes contributions to low and zero carbon energy schemes and/or incorporates provision to enable future connection to existing or potential decentralised energy schemes;**
- e. aspires towards water neutrality⁴ by meeting high water efficiency standards and incorporating facilities to recycle, harvest and conserve water resources;**
- f. improves the sustainability of existing buildings, makes the most effective use of land and re-uses existing buildings;**
- g. protects occupant health and the wider environment by making the best use of site orientation, building form, layout, landscaping and materials to maximise natural light and heat, whilst avoiding internal overheating by providing passive cooling and ventilation;**
- h. reduces 'heat island effect'⁵ and surface water run-off;**
- i. uses materials that are sustainable and have low embodied carbon⁶;**
- j. enhances biodiversity;**
- k. minimises waste and facilitates recycling, composting and re-use;**
- l. reduces air, land and water pollution and safeguards water supplies if development is within groundwater Source Protection Zones;**
- m. maximises operational efficiency through ongoing evaluation, monitoring and improvement of building performance especially in relation to energy and water use;**

³ Zero carbon technologies are those that harness renewable non fossil fuel energy to create heat or generate electricity. They are called zero carbon because they produce no carbon dioxide (CO₂) emissions when producing heat or power. These technologies are sometimes referred to as micro generation, producing heat or energy locally on a small scale. Low carbon technologies are those that use fossil fuels in a highly efficient way.

⁴ See Environment Agency 'Water Neutrality; an improved and expanded water resource management definition'. Water neutrality is where 'for every new development, total water use ... after the development [is] equal to or less than total water use ...before the development'.

⁵ On hot days urban areas can have temperatures 20 to 60% higher than the surrounding countryside. This is due to a phenomenon called the urban heat island effect that causes air temperatures in large cities to be warmer than in neighbouring suburbs and rural areas. Warmer air temperatures can impact on air quality, public health and the demand for energy. Heat island effect can be mitigated by the greening of buildings via for instance green roofs, green walls and tree planting.

⁶ These include materials that are produced locally where possible, procuring materials sustainably and ethically, and seeking to avoid materials which are polluting or with high embodied carbon and energy inputs;

- n. introduces means to encourage users, tenants and householders to reduce their ecological footprint;
- o. is adaptable to respond to changing needs; and
- p. encourages food growing.

Technical guidance and clarification will be produced to help planning applicants address this policy.

The Sustainability Checklist and the Authority Monitoring Report (AMR) will be used to assess planning applications, and monitor the effectiveness of the policy.

Supporting text

4.76 The way in which buildings are designed, constructed, operated and decommissioned have significant impacts on the built and natural environment and require major resource inputs such as energy, water and materials. Designing and constructing buildings that help to reduce or avoid adverse impacts can reduce not only resource inputs and the city's ecological footprint but also costs for developers and occupants. As such, encouraging high standards of sustainable building design and construction in new and existing buildings is an essential part of the City Plan's response to the challenges of climate change, natural resource depletion, energy security, habitat loss, and wider environmental issues.

4.77 Brighton & Hove is particularly vulnerable to the impacts of present and future climate change. Opportunities for growth and expansion are constrained by the South Downs to the north of the city and the sea to the south. The city also contains a high proportion of protected and/or old buildings⁷. Within this context, the need to secure improvement in the environmental performance of the existing stock as well as more resource efficient and low carbon development whilst delivering homes and jobs through development is challenging. Energy, water and waste have been identified as key resource issues of particular concern in relation to growth in the city⁸.

⁷ 17.4% of the city's built up area is within conservation areas. The proportion of stock built before 1919 and during the inter-war period is 43.4% for England and 65.7% for Brighton & Hove (Brighton and East Sussex Together House Condition Surveys – Overview Report October 2008).

⁸ The latest data (2009) indicates that activities in Brighton & Hove emit about 1,230 kilo tonnes (1.2m tonnes) million tonnes of CO₂ every year, with the domestic sector alone accounting for 42% of total direct emissions (mostly from energy use), significantly higher than 31% regionally and 30% nationally. The city is within a 'highly water stressed' region (Environment Agency) with above regional average per capita consumption (South East average 150-160 litres per person per day (l/p/d); Brighton & Hove's is 169 l/p/d – Audit Commission). The adopted East Sussex, South Downs and Brighton & Hove Waster and Minerals Plan identifies a need for additional waste recycling and recovery capacity to support further increases in the diversion of waste from landfill.

4.78 The City Plan reflects the council's and the city's commitment towards achieving excellence in sustainable building design. The purpose of this policy is to ensure development in Brighton & Hove fulfils this commitment whilst helping deliver European, national and Sustainable Community Strategy targets⁹. As such, all development will be encouraged to contribute to the City Plan's vision for energy, water and waste neutral, high-standard, cost-effective, resource-efficient future and the development of a low carbon economy for the city.

4.79 The council's approach to deliver low carbon growth is through highly energy efficient buildings and connections to existing or planned local energy infrastructure. Energy efficient design is an essential element of the excellence in design envisioned in the City Plan being the most cost-effective, efficient way of reducing carbon emissions from buildings (focusing on building fabric, orientation, layout, insulation, natural light, solar gains and shading, and passive ventilation). Once the demand for energy has been reduced to a minimum in a building the next step is to supply energy efficiently via renewable and low carbon energy and connection to decentralised heat and energy networks¹⁰.

4.80. A Renewable and Sustainable Energy Study has been undertaken for Brighton & Hove assessing opportunities for carbon reduction in the city. The study informs planning policies around low and zero carbon energy particularly for Development Plan and Supplementary Planning Documents. Any wind turbine proposals will be considered against the Written Ministerial Statement (HCWS42) published on the 18th June 2015 or the latest government guidance thereafter.

4.81. The Study recognises that to deliver significant carbon savings during the Plan period emissions associated with the existing building stock must be addressed in addition to setting standards for new development. A combination of approaches will be required. This includes: retrofit improvements to the existing building stock; supplying low carbon decentralised energy solutions such as district heating; and installing renewable energy technologies.

4.82. The Study explores opportunities for district heating in the city and identifies areas with enhanced potential to implement district heating solutions and decentralised energy schemes. Where appropriate new development and retrofit projects will be required to connect to and/or make contributions to low or zero carbon energy schemes and/or to incorporate provision to enable

⁹ The Brighton & Hove Sustainable Community Strategy commits to reducing the city's carbon emissions by 42% by 2020 and by 80% by 2050 from the 2005 baseline of 5.7 tonnes per person reflecting the national commitment via the Climate Change Act. It also commits to: 'from a starting point of no increase in 2012/13 on the 2006 per capita City Ecological Footprint baseline of 5.72 global hectares (gha) per person, achieve a reduction to: 2.5 gha per person by 2020; and 1.25 gha per person by 2050'. Commitment to delivering these targets are further detailed in the city's Climate Change Strategy.

¹⁰ Decentralised energy generation is a series of local systems generating heat and power, at or near the point of use, connected to local distribution networks.

future connection to any existing / potential decentralized energy schemes.¹¹. The energy study also provides an energy opportunities map which identifies particular areas of opportunity for different low and zero carbon technologies.

4.83 The Building Research Establishment Environmental Assessment Method (BREEAM) is a widely recognised, accredited, independent methods for assessing environmental performance of non-residential buildings,. Until superseded by nationally prescribed standards, the BREEAM standards for non-residential buildings will be required. Equivalent standards for non-residential buildings by nationally recognised certification bodies may also be accepted¹². Any changes to nationally described standards and or revised Building Regulations will be addressed through Part 2 of the City Plan or a review of this Policy.

4.84 An assessment of the energy demand and carbon dioxide emissions will be expected from all residential and proposed major developments, which should demonstrate the expected energy and carbon dioxide emission savings from energy efficiency and renewable energy measures incorporated in the development, including the feasibility of CHP/CCHP and community heating systems. The assessment should include:

- calculation of baseline energy demand and carbon dioxide emissions;
- Compliance against Part L of Building Regulations;
- proposals for the reduction of energy demand and carbon dioxide emissions from heating, cooling and electrical power;
- proposals for meeting residual energy demands through sustainable energy measures; and
- calculation of the remaining energy demand and carbon dioxide emissions.

4.85 The National Home Energy Rating (NHER), Standard Assessment Procedure (SAP), Energy Performance Certificates (EPC) and Simplified Building Energy Model (SBEM) and other recognised, certified energy and carbon assessment procedures will be used to assess building performance and quantify emissions.

4.86 Rather than an inflexible blanket policy for all development, standards are set by development and size, see Table 7 below.

Table 7 - Definition of Development Size

Development size	Definition
Non-major Non-residential ; extensions, conversions and changes of use;	Retail 151-999 sq m; or other development 236 sq m – 1000 sqm..
Major	Development over 1,000 sq m; or

¹¹ See Brighton & Hove Renewable and Sustainable Energy Study. This includes maps identifying opportunities for renewables and priority areas with enhanced potential for district heat networks.

¹² Such as Passivhaus or AECB standards.

Non-residential developments.	development on a site of 0.5ha or more.
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4.87 The council will consider site constraints, technical restrictions; financial viability and the delivery of additional benefits to the city where requirements of the policy cannot be met. Given the contextual nature of these issues, the council will expect developers to make a case on a site by site basis.

4.88 The challenge to reduce the ecological footprint of the city means that there is a need to for the council and planning applicants to identify opportunities for improving standards in retrofitting the existing stock. Measures should be implemented which lower the environmental impact from the existing stock through reuse and refurbishment of buildings, reducing carbon dioxide emissions and fossil energy use, increasing thermal efficiency, reducing waste and noise impacts, and conserving water, materials and other resources.

4.89 Developments will, where appropriate, be required to demonstrate how sustainability has been addressed by submitting a completed Sustainability Checklist. An Energy Statement and other relevant information may also be needed as part of an application.

4.90 This policy has important links with CP12 Urban Design.