### **Policy DM4**

### **Building Sustainable Homes and Businesses**

New development of one or more new dwellings (C3 or C4 use class) and/or 100sqm or more of new non-residential floorspace, including hotels (C1 use class), residential institutions (C2 use class) or Secure Residential Institutions (C2A use class) should achieve net zero operational carbon emissions (regulated and unregulated energy) by implementing the energy hierarchy.

Proposals should demonstrate application of the energy hierarchy through submission of an Energy Statement or a detailed energy section within the Sustainability Statement in accordance with policy SP5 and which identifies how the following minimum standards of construction are achieved to the greatest extent feasible and viable.

#### 1. Residential Development - minimum construction standard

- A. New development of one or more new dwellings (C3 or C4 use class) will meet the following minimum standards of construction:
- Achieve the carbon Target Emission Rate set by the Future Homes Standard once this is confirmed by central Government; in the meantime, achieve 63% reduction in carbon emissions is achieved by on-site measures, as compared to the baseline emission rate set by Building Regulations Part L 2021 (SAP 10.2). These regulated carbon emission targets are to be achieved before the addition of on-site renewable electricity generation (which should subsequently be considered in section 3 of this policy); and
- Equal to or less than the following targets, using the Building Regulations Part L SAP Fabric Energy Efficiency (FEE) metric:
  - End terrace: 32.9 kWh/m2/year FEE
  - Mid terrace: 25.1 kWh/m2/year FEE
  - Room in roof (semi detached): 32.5 kWh/m2/year FEE
  - Detached: 43.6 kWh/m2/year FEE
  - Bungalow: 51.0 kWh/m2/year FEE
  - Low-rise apartment: 21.0 kWh/m2/year FEE
  - Mid to high-rise apartment: 13.5 kWh/m2/year FEE
  - Where the proposed home type does not precisely reflect any of the above, the applicable target from the list above will be that of the most similar home type to that proposed, with a note to justify why this is thought to be the most similar. In apartment buildings, it will be acceptable to meet this target via a weighted average of all residential floor space in the building (recognising that there may be variation between floors in the building).
- For outline applications and where the home type is not known, it will be required to commit to delivering the relevant target(s) through reserved matters. This will be secured by a condition.
- B. Residential refurbishment developments of 10+ units will meet BREEAM Domestic Refurbishment 2014 (or future equivalent) Excellent as a minimum.
- 2. New Non-Residential Development, including hotels, residential institutions, secure residential institutions minimum construction standard

New development of 100sqm or more of new non-residential floorspace, including hotels (C1 use class), residential institutions (C2 use class) or secure residential institutions (C2A use class) will meet the following minimum standards of construction:

- Appropriate to the building type, calculate a typical building baseline using a nationally recognised standard
  and demonstrate a percentage reduction in energy (regulated and unregulated) carbon emissions. These
  operational carbon emission targets are to be achieved before the addition of on-site renewable electricity
  generation (which should subsequently be considered in section 3 of this policy); and
- BREEAM Excellent (BREEAM New Construction V6 or future equivalent).

### 3. Renewable Energy

A. Subsequent to the achievement of the minimum construction standards under parts 1 and 2, new development of one or more new dwellings (C3 or C4 use class) and/or 100sqm or more of new non-residential floorspace, including hotels (C1 use class), residential institutions (C2 use class) or Secure Residential Institutions (C2A use class) should include onsite renewable, zero and low carbon energy technologies to achieve net zero carbon operational energy (regulated and unregulated) on site.

- B. The Council will support proposals for renewable energy provided that the technology is:
- i. Suitable for the location;
- ii. Not on the most versatile agricultural land (grades 1, 2 and 3a);
- iii. Is accompanied by a landscape / visual impact assessment; and
- iv. Would not cause harm to residential amenity by virtue of noise, vibration, overshadowing, flicker or other harmful emissions.

### 4. Carbon Offsetting

Where a development proposal of one or more new dwellings (C3 or C4 use class) and/or 100sqm or more of new non-residential floorspace, including hotels (C1 use class), residential institutions (C2 use class) and or secure residential institutions (C2A use class) cannot demonstrate that it is net zero carbon in relation to operational energy (regulated and unregulated), it will be required to address any residual carbon emissions by a cash in lieu contribution.

### **Supporting Text**

**10.12** Carbon reduction has been a key issue for West Berkshire since the Core Strategy, introducing policies aimed at delivering carbon neutral development by 2016, was approved following examination in 2012. However, despite the 26.4% reduction in  $CO_2$  emissions in the District since 2005, the authority still has emissions well above the Berkshire, South East and England levels.

Table 5 Full Set and Sub Set\* Per Capita Carbon Dioxide emissions (tonnes) at local authority level in 2017, listed by difference

Area	Full Set data	Sub Set data	Difference
West Berkshire	8.2	5.8	2.4
Windsor & Maidenhead	5.7	4.5	1.2
Wokingham	4.7	3.6	1.1
Slough	5.0	4.1	0.9
Reading	3.4	3.3	0.1
Bracknell	3.7	3.7	0
South East	4.8	4.2	0.6
England	5.1	4.3	0.8

<sup>\*</sup>The Full Set data contains all measured emission sources for each LA area whilst the Sub Set removes those that the LA has no influence over.

**10.13** The Council unanimously declared a Climate Emergency in July 2019 with the stated aim to be carbon neutral by 2030 as the consequences of global temperature rising above 1.5°C are so severe that preventing this from happening must be of the utmost urgency.

- **10.14** Sustainable construction and renewable energy generation can help in achieving emissions reduction. Cost implications of installing CO2 emissions reduction measures from the start of a development are less than if they were retro-fitted. In addition, the benefits derived by the end user in relation to reduced heating and fuel bills will be enhanced.
- **10.15** The District is one of the highest electricity users in the south east, and is in the upper quartile of local authorities for CO2 emissions within the country. Fuel poverty levels in West Berkshire are also high, compared to other authorities. This is clear evidence and justification that West Berkshire needs to do more to meet national targets in relation to CO2 emissions reduction.
- 10.16 The NPPF requires action on climate change and the protection and enhancement of the natural environment. Paragraph 152 requires the Council to support the transition to a low carbon future and shape places in ways that contribute to radical reductions in greenhouse gas emissions, minimise vulnerability and improve resilience to the effects of climate change. At the same time development of poor design, which fails to capitalise on opportunities for improving character, quality and take account of design standards should be refused. Furthermore, the quality of development approved should not diminish between permission and completion as a result of changes being made to the permitted scheme.
- **10.17** The re-issue of the Planning Policy Guidance on Climate Change in 2019 allows local planning authorities to "set energy performance standards for new housing or the adaption of buildings to provide dwellings that are higher than the building regulations, but only up to the equivalent of Level 4 of the Code for Sustainable Homes".
- **10.18** Viability work undertaken for the LPR, tested the viability based on "carbon neutral" development and concluded it is not a barrier to development in West Berkshire.

### **Operational Energy - Net Zero Carbon**

- **10.19** Following the energy hierarchy, developments are required to achieve net zero carbon emissions in relation to operational energy (regulated and unregulated).
- **10.20** Methodologies which could be used to calculate operational energy reductions (regulated and unregulated) to support the achievement of net zero carbon emissions include CIBSE TM54 or PHPP. Developers are advised to use this exercise as a way to earn further BREEAM credits towards the required overall "Excellent" rating, if done in accordance with BREEAM guidance under Ene 01, 04 and 08.
- **10.21** Developers should be aware that the new Part L 2021 includes a requirement for prediction of actual operational energy consumption in non-residential over 1000m2, for the purpose of informing the new owner, and mentions CIBSE TM54 as a suitable method to do this and specifies that basic SBEM outputs are NOT suitable for this purpose.
- **10.22** For non-residential developments, the use of the Building Research Establishment Environmental Assessment Method (BREEAM) ensures that issues relating to health, energy, water, sustainable transport, materials, waste, ecology and pollution are addressed from the start of the project and the certification process provides greater assurances that the agreed level of quality and sustainability is delivered at completion. It is also a means of demonstrating compliance against a broad suite of policies; such as natural environment and operational energy, in addition to those related to climate mitigation and resilience. However, other technical standards are acceptable, provided they result in an equivalent outcome.
- **10.23** For residential refurbishment developments of 10+ units that require planning permission, BREEAM Domestic Refurbishment to a rating of Excellent is required as a minimum. This includes change of use to residential development and refurbishment of existing residential properties.
- **10.24** Applications for commercial development and residential refurbishment developments of 10+ units should include a BREEAM pre-assessment, undertaken by a licensed BREEAM assessor and where deemed appropriate supported by a BREEAM accredited professional at the start of the design process to demonstrate how the target rating will be met and ensure early action credits are not missed.
- 10.25 Commercial development includes (but is not limited to) uses for retail, office, industrial, data centres, healthcare, and education, prisons and leisure facilities. Multi-residential schemes, including care homes/student halls of residence, hotels and other multi-occupancy domestic buildings are also included as commercial development. Early engagement with a licensed BREEAM assessor should be sought at RIBA Stage 0 to determine in BREEAM is applicable to a development.

### **Renewable Energy Generation**

- 10.26 Renewable energy technology can make a major contribution to reducing CO2 emissions. Communities can benefit from reduced fuel bills and improved security of energy supply. Building a green economy that can generate growth and improvements in people's lives is consistent with sustainable development and the Council's 'Environment Strategy' and helps build in a resilient economic future for renewable energy technology as it is constantly evolving. Examples of renewable energy technology include:
- (i) Combined heat and power (CHP) with a modest plant being able to serve a large number of dwellings and commercial uses in a small geographical area;
- (ii) Large scale ground mounted solar PV systems; and
- (iii) Micro-renewable technology, in particular solar water heating, ground and air source heat pumps, photovoltaic cells and biomass boilers.
- **10.27** However it is important not to restrict future options for how renewable energy might be delivered within West Berkshire.
- **10.28** Where appropriate and following the energy hierarchy, renewable energy proposals will be integrated in to the proposed scheme as part of the design process and shown on plans submitted for planning permission.

#### **Carbon Offsetting**

- **10.29** Where a development cannot achieve net zero carbon for operational energy, with the use of the energy hierarchy, contributions to an offsetting scheme shall be secured through Section 106 Agreements and will be required to be paid prior to the occupation of the development. In order to provide further guidance the Council intends to prepare an update to its existing Planning Obligations SPD which it anticipates adopting in 2025.
- **10.30** The amount of carbon to be offset will be calculated in the Energy Statement or detailed section of the Sustainability Statement required under policy SP5 and reflect emissions over a period of 30 years from completion. Calculations may take into account grid carbon reductions over that 30 year offset period such as through electricity grid decarbonisation.
- **10.31** The carbon offset price is the central figure from the nationally recognised non-traded valuation of carbon, which is updated annually as part of the Treasury Green Book data by the Department for Business, Energy and Industrial Strategy (BEIS) and includes future years' per-tonne prices that should be used for each of the future 30 years of operation (to match the years used for the electricity grid carbon factors as above).
- **10.32** At the Council's discretion, a verified local off-site offsetting scheme. The delivery of any such scheme must be within West Berkshire, guaranteed and meet relevant national and industry standards. If it is a nature-based carbon sequestration scheme, then it must be backed by the Government's Woodland Carbon Code initiative (or future replacement/equivalent national scheme).
- **10.33** Funds raised through this policy will be ring-fenced and transparently administered by the Council to deliver a range of projects that achieve measurable carbon savings as locally as possible, at the same average cost per tonne. The fund's performance will be reported in the Authority Monitoring Report on: amount of funds spent; types of projects funded; amount of CO<sub>2</sub> saved.

#### **Assured Performance**

- 10.34 New development of one or more new dwellings (C3 or C4 use class) and/or 100sqm or more of new non-residential floorspace, including hotels (C1 use class), residential institutions (C2 use class) or Secure Residential Institutions (C2A use class) will be required to:
- Implement a recognised quality regime that ensures the as built performance and addresses the energy performance gap in order to ensuring the building performs as close as possible to energy predictions.
- Submit to the Council as built energy calculations prior to occupation and demonstrating that the finished building
  meets the minimum construction standards and achieves net zero operational carbon emissions (regulated and
  unregulated energy).
- Where assessment undertaken at completion shows that there is a performance gap between the design and the performance of the completed building, this must be remedied as far as practicable and following which

carbon offsetting contributions will be required to reflect any associated additional carbon emissions not accounted for at the point of determination of the planning application and an adjusted payment made if necessary.

### **Existing Housing Stock**

**10.35** Measures to increase the adoption of retro-fitting energy efficiency measures for the existing housing stock may be explored in subsequent Local Plan documents.

#### Design

**10.36** This policy should be read in the context of policy SP7. The principles of good design extend to all development, including sustainable homes and businesses.

### **Changes to national targets**

**10.37** This policy may be revised and updated periodically, for example to reflect changing national guidance or changing circumstances.

#### **Thresholds**

**10.38** The Council will carefully scrutinise proposals which appear to fall artificially below any thresholds as this may indicate a possible attempt to avoid implementing the relevant measures described above.