

Climate Change, Sustainable Design, Construction and Energy SPD

Factual update

04 July 2022

1. The purpose of this note

1.1 The standards in the Building Regulations 2010 ('the regulations') were amended on 15 June 2022. The changes have an impact on how the following policy and guidance is applied:

- Local Plan: Strategy and Sites 2015-2034 Policy D2: Climate Change, Sustainable Design, Construction and Energy ('Policy D2'), and
- the Guildford Climate Change, Sustainable Design, Construction and Energy SPD 2020 ('the SPD').

1.2 This note sets out how the changes impact the implementation of policy and guidance. The SPD will be reviewed in due course to reflect the changes.

2. Building Regulation changes 15 June 2022

2.1 Amendments to the regulations and the relevant Approved Documents commenced on 15 June 2022¹. The changes affected standards in the following areas.

- Ventilation.
- Energy and carbon emissions.
- Electric vehicle charging infrastructure.
- Overheating.

Transition period

2.2 Transitional arrangements are in place. The outgoing regulations will still apply to a new building (not a whole development or a phase) where:

- it is covered by an initial notice, building notice or full plans deposit submitted before 15 June 2022, and
- work is commenced on the building before 15 June 2023.

¹ See [The Building Regulations etc. \(Amendment\) \(England\) Regulations 2021 \(legislation.gov.uk\)](#)

- 2.3 All buildings covered by an initial notice or building notice or full plans deposit that was submitted after 15 June 2022 must comply with the new regulations.
- 2.4 All buildings for which work is commenced after 15 June 2023 must comply with the new regulations, regardless of when the relevant notice or deposit was submitted.

3. Changes to planning application requirements

- 3.1 Applicants should confirm either that the whole scheme will be subject to the 2022 building regulations or, where they fall within the transition arrangements, identify which buildings will be subject to the 2022 regulations and which will be subject to the outgoing regulations.

Buildings that are subject to the outgoing regulations

- 3.2 Schemes where all the proposed buildings will be assessed under the outgoing regulations should continue to submit information in accordance with Policy D2 and the SPD.

Schemes that are subject to the new regulations

- 3.3 Schemes where all the proposed buildings will be assessed under the June 2022 regulations will not need to submit some of the information specified in the SPD. See section 4 below.

Schemes that include buildings subject to different sets of regulations

- 3.4 Due to the transition period, larger schemes may include some buildings that are subject to the outgoing regulations and some that are subject to the new regulations (see section 2 above). In this case, applicants should submit information in accordance with Policy D2 and the SPD for the buildings that will be assessed under the outgoing regulations, but do not need to submit all the specified information for the buildings that are assessed under the June 2022 regulations. See section 4 below.

4. Buildings assessed under the June 2022 regulations

Minimum 20% carbon reduction

- 4.1 The 2010 regulations have been amended several times since they were introduced. In 2013 they were amended to introduce new Target Emission Rates (TER) for new buildings (the TER is the maximum lawful emission rate for a new building). Policy D2 paragraph 9 requires all new buildings (except retail only developments in Guildford town centre) to achieve a carbon emission rate that is at least 20% lower than the 2013 TER.
- 4.2 The June 2022 regulations change the methodology for assessing building performance including by introducing TERs that are around 31% and 27% lower for new homes and non-residential buildings respectively. Planning decision makers can therefore be confident that any buildings

that meet the new regulations will have a Dwelling Emission Rate (DER, for homes) or Building Emission Rate (BER, for non-residential buildings) that is at least 20% lower than the TER.

- 4.3 The SPD² asks applicants to provide the 2013 TER and DER or BER for each proposed building with supporting SAP or SBEM/DSM assessments. The Council will no longer ask for this information for any proposed building that the applicant confirms is subject to the June 2022 building regulations as this would require applicants to produce a second set of 2013 SAP or SBEM/DSM assessments alongside the 2022 SAP or SBEM/DSM assessments required by the regulations, and the information is no longer needed to demonstrate that the buildings achieve a 20% carbon reduction against the 2013 TER.
- 4.4 However, SAP or SBEM/DSM data using the 2022 methodology must be provided in order to demonstrate compliance with other policy requirements (see next section).

Energy hierarchy

- 4.5 Policy D2 paragraph 2 requires schemes to follow the energy hierarchy by prioritising carbon reductions firstly through energy demand reduction, then energy efficient building systems, before delivering further reductions through low carbon energy.
- 4.6 While the June 2022 regulations improve the worst allowable values for thermal efficiency, the improvements are modest and buildings built to the new standards may fall short of the efficiencies that have typically been achieved by applying the energy hierarchy. As a result, it is not possible to assume that the energy hierarchy has been followed simply because a scheme complies with the 2022 regulations.
- 4.7 The SPD asks applicants to provide the TER and DER or BER for the proposed buildings assuming a gas boiler as the main heating system in order to provide a baseline for carbon reductions through energy efficiency and low carbon energy. In the past, housing schemes have typically used gas boilers supplemented by solar PV to design buildings that comply with the Policy D2 carbon emission standard, so providing this data has been straightforward.
- 4.8 New homes have increasingly employed heat pumps instead of gas boilers. The commencement of the new regulations and the approaching implementation date for the proposed Future Homes and Future Buildings standards are expected to further increase this shift. Where homes are proposed to be electrically heated, asking for data that shows gas boiler heating as a baseline would require a second set of modelling assessments to be produced. Additionally, the gas boiler baseline becomes less and less relevant and appropriate as normal construction practice moves away from the provision of gas heating.

² See the section “Methodology for the carbon reduction calculation”.

4.9 As a result, the Council will not require modelling with a gas boiler baseline for buildings assessed under the 2022 regulations where the proposed building does not intended to be heated by gas. Instead, the modelling data produced for the building control process can be submitted, but in order to judge compliance with the energy hierarchy, the submitted data must include:

- the TER and DER or BER,
- the Target Fabric Energy Efficiency (TFEE) and Dwelling Fabric Energy Efficiency (DFEE) (new dwellings only),
- proposed u-values for thermal elements,
- proposed air permeability values, and
- the newly introduced primary energy use data.

Overheating

4.10 Overheating is a key issue in the borough and is expected to worsen significantly with climate change. As a result, Policy D2 paragraph 4 requires schemes to demonstrate adaptation to a changing climate, which includes resilience to overheating.

4.11 The June 2022 regulations introduce a new Approved Document (Part O: Overheating) which sets out a new overheating test and offers developers two routes to compliance:

- a package of measures or restrictions on the amount of glazing, or
- undertaking a CIBSE TM59 overheating assessment.

4.12 Decision makers can be satisfied that schemes in rural areas that are assessed under the 2022 regulations will meet Policy D2 paragraph 4 where it relates to overheating without any further information provided. The Ash and Guildford Urban Areas are prone to the Urban Heat Island effect where overheating is likely to be more acute. Applications for development in these areas should continue to include information on how the risk of overheating has been addressed as set out in Policy D2 and the SPD. This requirement can be satisfied through a CIBSE TM59 assessment.

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