

Consultation response

The Future Buildings Standard Consultation on changes to Part L (conservation of fuel and power) and Part F (ventilation) of the Building Regulations for non-domestic buildings and dwellings; and overheating in new residential buildings

<https://www.smartsurvey.co.uk/s/FutureBuildingsStandard/>

About the London Climate Change Partnership

The London Climate Change Partnership (LCCP) is an unincorporated partnership of public, private and voluntary sector organisations whose aim is to ensure that London is prepared for and able to adapt to the impacts of inevitable climate change. The LCCP was set up in 2001 to inform London's policies and plans with reliable science and evidence, and to encourage and pilot measures to address the impacts of climate change across Greater London. We also work collaboratively with colleagues across the UK to support adaptation at the national scale. A list of our partner organisations can be found [here](#).

This response covers the sections of the consultation pertaining to proposals to introduce new overheating mitigation requirements for new domestic buildings and non-domestic buildings classed as 'residential.'

Q 81: How should the Government address the overheating risk?

a) Overheating in homes is identified as a risk to health that is expected to increase as our climate changes. As we are concerned that design codes and Part L of the building regulations are not properly raising awareness of or addressing the issue of overheating, the LCCP appreciates the acknowledgement by government that a more robust approach to addressing this through building regulations is needed. We support a new requirement in the building regulations.

Q 82: Do you agree with the buildings that are in scope of this new part of the building regulations?

b) We agree with including care homes and residential educational buildings included in the proposals related to overheating. We also would like to see guidance extended to include existing homes, as overheating is already a significant problem in housing. We also suggest extending to non-residential buildings, as the use of a building over its lifetime may change given permitted development.

Q 83: Do you agree that the division of England based on overheating risk detailed in paragraph 5.6.3 of the consultation document is correct?

c) No. London's urban heat island and its high proportion of flats with potential challenges for ventilation justify treating London as a separate case. However, greater account should be taken of the specific overheating risk in a range of locations, and the fact that overheating is also about microclimate, orientation, and glazing: the approach of separating the overheating regions into England and Greater London is too coarse. The existing SAP overheating assessment, while imperfect, is more detailed and recognises the difference in regional climates across the UK, which can directly influence overheating risk.

Q 84: Do you agree with the categorisation of buildings into Group A and Group B as detailed in paragraph 5.6.5 of the consultation document?

b) No. This categorisation unnecessarily complicates what is meant to be a simplified method while not actually preventing overheating. It does not take enough account of orientation; high glazing allowances could cause serious overheating depending on orientation.

Q 85: Do you agree with the simplified method as a means of compliance with the proposed new requirement to reduce overheating risk?

d) While we appreciate that simplification is helpful, we think that this proposal oversimplifies the issue and fails to take into account all the potential factors contributing to overheating. A set of design principles is set out but there is no longer the requirement to test the results to ensure that the measures adopted work sufficiently for the specific situation. Focus on glazing areas, shading and free areas seems a reasonable approach but the use of thermal mass and ventilation is missing and we believe some changes to the thresholds set out are needed. The proposed approach also potentially creates unintended consequences, for example for daylighting, or by encouraging higher glazing areas to meet the free area requirements, which could increase overheating risk.

Ideally we would have a real performance check, as we do with acoustics. While this may be too challenging right now, at the very least a design performance check is required. A performance-based overheating standard would give architects and designers greater design flexibility and allow them to address overheating using solutions best suited to the site conditions and client needs of each project – alongside all the other needs of new housing. To meet the performance standard, an updated version of the current SAP overheating assessment could be used for simple, low-risk situations. Higher risk designs can be assessed using dynamic thermal modelling in accordance with CIBSE TM59 guidance. This approach aligns with that proposed by the Zero Carbon Hub following extensive work on overheating in homes.

Q 86: Do you agree with the maximum glazing area and shading standards for limiting solar gains in the simplified method as detailed in paragraphs 1.6 to 1.9 of the draft *Overheating Approved Document*?

b) No. These levels are too high and will increase overheating risk, particularly in dwellings with only one or two facades.

Q. 87: Do you agree with the approach to removing excess heat in the simplified method as detailed in paragraphs 1.10 to 1.13 in the draft *Overheating Approved Document*?

N/A

Q. 88: Do you think that adequate levels of daylight will be provided and that homes will be acceptable to purchasers while meeting these proposed standards?

N/A

Q. 89: Do you agree with offering dynamic thermal analysis as a means of compliance with the proposed new requirement to reduce overheating risk?

b) Yes, although we understand that TM59 is undergoing revision. Assessment reports should include information about what version of TM59 has been used.

Q. 90: Please detail any information you have about the likelihood of occupants opening doors and windows at night in unoccupied rooms

N/A

Q. 91: Do you agree with the proposed acceptable strategies for shading and the removal of excess heat, when following the dynamic thermal analysis method, as found in section 2 of the draft *Overheating Approved Document*?

Yes, but we think that good design in relation to glazing and daylighting should be considered before shading. We also agree that internal blinds and curtains, and the use of plants such as tree cover, should be excluded from consideration of meeting the standard.

Q. 92: Do you agree that the overheating standard should not account for the effects of curtains, blinds, and tree cover?

a) Yes, as above. There is no guarantee that a tree will remain in place or viable over the lifetime of the building.

Q. 93: Do you agree that the building should be constructed to meet the overheating requirement without the need for mechanical cooling?

a) Ideally yes, this would be beneficial in terms of energy costs, CO₂ emissions, and resilience. But given the potential for increased overheating risk due to climate change, this may not always be feasible. It will be crucial to reduce the need for cooling as a priority. The London Plan sets out a cooling hierarchy that regards mechanical cooling as a last resort.

Q. 94: Do you agree with limiting noise in new residential buildings when the overheating strategy is in use, and the proposed guidance in section 3 of the draft *Overheating Approved Document*?

N/A

Q. 95: Do you agree with minimising the ingress of external pollutants when the overheating strategy is in use, and that the external pollutants guidance in *Approved Document F, vol. 1 dwellings* should be followed where practicable?

b) Yes, we agree with minimizing the ingress of external pollutants, but the advice given in the document is of limited use. Natural ventilation can only be used to the extent that outdoor air quality is adequate and not causing harm to vulnerable people.

Q. 96: Do you agree with the proposals on security in section 3 of the draft *Overheating Approved Document* in new residential buildings?

N/A

Q. 97: Do you agree with the new protection from falling guidance proposed in section 3 of the draft *Overheating Approved Document*?

N/A

Q. 98: Do you agree with the guidance on protection from entrapment proposed in section 3 of the draft *Overheating Approved Document*?

N/A

Q. 99: Are there any further issues which affect usability that should be included in the *Overheating Approved Document*?

a) Yes, microclimate should be included in any assessment of a dwelling, whereas modelling includes only building fabric and weather. Microclimate could have significant impacts, for example, the urban heat island could make opening windows at night less effective for cooling.

Q. 100: Do you agree with the proposed requirement to provide information on the overheating strategy to the building owner?

a) Yes, we think information on the overheating strategy should be provided to the building owners and also to occupants.

Q. 101: How do you see this new building regulation interacting with policies in local plans?

N/A

Q. 102: Do you agree that this guidance on limiting the effects of heat gains in summer, in both Approved Document L guidance for new dwellings and SAP Appendix P, can be removed?

N/A

Q. 103: Should the transitional arrangements that apply to the overheating requirements align with the proposed transitional arrangements for Part L and F 2021 for new dwellings, as described in Paragraph 5.10.2 of this consultation document?

a) Yes.