

Mr Mitch Finn comments

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S12 C requires residential development to achieve a a 10 percent improvement on Building Regulations through energy efficiency.

I've completed many energy statements for London which have included SAP assessments. Where an overheating assessment was completed for the development, g-values (solar transmittance values) were required to be very low (around 0.3 to 0.4) in order to meet compliance for overheating. When these values are entered into the SAP assessment, this has a very negative effect on the SAP assessment because it means there is much less solar gain. The 'notional' g-value in SAP is 0.63, so any value entered less than this must be compensated elsewhere.

For SAP assessments in this case, it has not been possible to meet Building Regulations requirements feasibly through energy efficiency alone, because of this low g-value. Attempting to further reduce the CO2 emissions by improving U-values or air tightness then in turn increases the risk of overheating and then this fails compliance.

Meeting a 10% improvement through energy efficiency alone, whilst meeting the overheating compliance, seems to be almost impossible. Reducing carbon emissions increases the risk of overheating. There doesn't seem to be a possible balance between them. I would request that some sample modelling be done to see if there are strategies for achieving both aspects, and guidance is given on how to achieve this. Otherwise I would request that the 10% requirement be removed, or worded so that it acknowledges how difficult it would be to achieve this alongside overheating requirements, so that boroughs do not reject applications because of it.