

Achieving Zero Carbon standard for new dwelling from 2016

The Government remains committed to set zero carbon standard for new homes by the end of 2016. There will be a follow-on for zero carbon for new non-domestic buildings by 2019.

The next step in regulations from 2013 to 2016 will provide a major challenge for house building. It will require developers to achieve zero carbon emissions from the regulated elements of new houses (heating, hot water, ventilation and lighting). The government has accepted that the step from a feasible low carbon standard, achieved within the walls of an individual dwelling, to full zero carbon could be unduly expensive. It may be more cost effective to take that extra step by investing in low carbon initiatives elsewhere. Propositions have been made for alternative off-site measures called "Allowable solutions" to contribute to the zero carbon standard for a new dwelling - See the Carbon Hub report "Zero Carbon Strategies for Tomorrows New Homes", Feb 2013.

The 2016 Regulations will demand a three stage design approach: firstly- highest feasible fabric energy standard, secondly- contribution from feasible low carbon energy technologies, eg solar panels, heat recovery, low carbon fuel, thirdly- allowable off-site solutions to meet remaining CO2 load. In terms of a SAP calculation the resultant DER at the second stage will be the amount of carbon to be offset by the Allowable Solution.

The Government's consultation period for the proposals for Allowable Solutions published in August 2013, "Next steps to Zero carbon homes-Allowable solutions –consultation" closed on 15 October 2013. Some possible solutions would simply add fiscal costs to house building, others could link housing developments to wider energy infrastructure, fuel poverty programmes, or regional energy generation. The extra investment could for example be an offset payment to the local authority. This could be used for grant aid to insulation programmes for hard-to-heat existing homes. Alternatively the house builder could contribute and connect to a low carbon or energy-from-waste district heating network. Other possible technologies for investment could be LED street lighting, power generation, PVs, wind farms or carbon abatement technologies.

There are considerable complexities in the Allowable Solutions principal. Low carbon technologies and schemes will need technical approval and accreditation. A carbon market will require financial supervision, and a trading and pricing mechanism.

The approved Allowable Solutions must be in place to allow zero carbon standards to be introduced in 2016 (or any subsequent slippage date). Time is short. Some solutions will require new institutions and services (eg green investment funds, carbon traders and brokers, approved energy technologies) that will take several years to put in place, and longer for familiarisation. The concept of Allowable Solutions will need a longer transition period than any previous revision to the Building Regulations. Given this, Government needs to provide an early response and timetable from the results of this consultation, next year. A possible scenario, if time to implement is insufficient, is adoption of a initial carbon tax on new developments, to fund later, emerging low carbon initiatives.

On the basis of the topics in the consultation document "Next Steps to zero carbon homes - Allowable Solutions DCLG August 2013" we have summarised the major options in [Allowable Solutions for 2016](#)