Allowable Solutions in 100 words

Allowable Solutions are part of Government strategy for cost-effective delivery of mainstream zero carbon new homes from 2016.

The aim of Allowable Solutions is to give developers an economical way of compensating for the CO₂ emissions reductions that are difficult to achieve through normal design and construction.

In the Zero Carbon Hub framework proposals under consideration, developers who opt to use Allowable Solutions will make a payment into a fund that invests in approved carbon-saving projects.

Mechanisms are being explored to help prioritise locally-relevant carbon-saving projects, and to ensure that all Allowable Solutions projects deliver verifiable carbon savings.
Why will Allowable Solutions be needed from 2016?

The Government’s zero carbon homes policy calls for the introduction of zero carbon homes from 2016. Through realistic building performance (Carbon Compliance) targets, mainstream zero carbon homes will achieve significant reductions in emissions compared to those built today, however (as shown in the chart) some residual emissions will still occur. Allowable Solutions is the strategic mechanism that compensates for these residual emissions by delivering approved on-site, near-site or off-site carbon-saving projects.

While Allowable Solutions will not only be instrumental in delivering the zero carbon standard, they are also expected to play a key role in stimulating much-needed investment in locally-relevant low carbon energy infrastructure.

What are Allowable Solutions?

A wide range of Allowable Solution project ‘families’ may be approved by Government and made available as investment options. The following may be among the first to be trialled in earnest.

Via the Green Deal - linking with the Government’s flagship initiative addressing the major CO₂ emissions from existing housing.  
Main benefit: could help pay for the more expensive energy efficiency measures alongside (in a package) those that are more affordable.

District heating projects - offers carbon emissions reductions above those achieved by the best individual home heating options.  
Main benefit: investment can help to make heating plant upgrade/heat network extension affordable.

Social housing retrofit - gives tangible social benefits, particularly for households in fuel poverty.  
Main benefit: supporting the retrofit market by ensuring that strategic carbon-saving measures are affordable on hard-to-treat properties.

Renewable energy - reducing fossil fuel dependence.  
Main benefit: supporting community-scale/intermediate capacity projects, that generically tend to miss out on funding.

Embodied carbon initiatives - major reductions in emissions possible through consideration of embodied carbon in building materials.  
Main benefit: embodied carbon initiatives could provide low-cost carbon-savings opportunities.

Low carbon (LED) lighting - a simple measure which could be introduced (eg. for street lighting) without complex procedures.  
Main benefit: very rapid payback period and immediate local benefits.

Find out more >> The Zero Carbon Hub report Allowable Solutions - opportunities and priorities looks at each of these six potential Allowable Solutions in more detail. See back page for details.
How an Allowable Solutions framework might work - key points, and interactions

 Developer pays for the residual carbon. Current proposals - 10, 11 or 14 kg CO₂/m²/year for a 30 year period at a given price (£46) per tonne, i.e. about £1200 for a typical attached home.

 Payments from a number of homes/developments contribute to a fund, which might be administered by a local authority or privately.

 The fund is then used to pay for carbon-saving Allowable Solutions projects.

 Only projects that have verifiable carbon savings are available.

 Funds may be directed towards local project priorities if a Local Authority has introduced protocols and safeguards.

 Projects may be selected locally or from a national list of projects.

 Funds stored securely and ring-fenced for Allowable Solutions use.

 Credits are used to support providers of Allowable Solutions projects to proceed without financial risk.

 Certificates for carbon savings are supplied to developers to align with the normal housebuilding approval process (and not cause delay).

Interaction summary: Developer/Housebuilder
- Pays for residual carbon, based on SAP Calculation
- Receives certificate for amount of carbon paid for - timing aligned with normal completion of home

Interaction summary: Local Panning Authority
- Establishes an Allowable Solutions policy and draws up prescribed list of locally-relevant projects
- Sets up Energy Fund or partners with local Allowable Solution providers. Publishes carbon price

Interaction summary: Allowable Solutions Supplier
- Ensures their projects fall within national guidelines and provide verifiable carbon savings
- Receive credits to start development of projects, and funds on completion or at key development stages

Interaction summary: Building Control
- Receives Allowable Solutions certificate from developer
- Certificate used as part of evidence that development meets zero carbon standards

Overview of an example Allowable Solution project (district heat upgrade)
In this case the Allowable Solutions payments ensure that the project is financially viable
Wider benefits of Allowable Solutions
Within the zero carbon policy hierarchy, Allowable Solutions have a special place because of their unique potential to unlock additional resources and stimulate engagement:

Enabling the Big Society
A well-designed framework for Allowable Solutions has the potential to galvanise and unite communities around the common issue of climate change and give them a genuine stake in the benefits and rewards that would arise from their investments.

A growth driver for the low carbon economy
Investment through Allowable Solutions could lead to community infrastructure improvement, innovation within our manufacturing industry (systems and materials) and active community involvement.

Affordability
The proposed Allowable Solutions Framework appears to be the most cost effective means of delivering zero carbon by partnering affordable Allowable Solution payments with other sources of funding.

Scalability
The Allowable Solutions framework has the potential to be the 'catalyst for scale' within the Zero Carbon hierarchy, unlocking local larger-scale carbon-saving opportunities that would not have otherwise occurred.

Delivering local aspiration and engagement
Allowable Solutions payments could stimulate a range of locally-significant and innovative carbon-saving projects, such as improving the energy performance of existing housing or bringing forward a new community-wide energy infrastructure that could provide cleaner energy for constituents.

Providing a capital magnet
Allowable Solutions could act as a 'magnet' through which to attract a range of sources of capital, such as project sponsor equity and debt finance. There is a very clear opportunity for Allowable Solutions to provide financial support to carbon-saving initiatives, particularly those which lack the scale to leverage debt finance and which might otherwise have not got off the drawing board.

Testing Allowable Solutions
Throughout 2012/13 it is proposed to run a number of trials exploring the practical delivery of Allowable Solutions. These will be focusing on a number of key considerations and particularly their alignment with the following critical success factors. These words will be increasingly in use as part of the Allowable Solutions lexicon:

1. Viability (£/tonne of CO₂) - does the option represent a cost-effective carbon-reduction investment?
2. Measurability - How easy is it to measure carbon-reduction performance?
3. Flexibility - Usable in a variety of scenarios and scales?
4. Simplicity - Is the option easy to understand and deliver?
5. Transparency - How should we avoid double counting and ensure fair alignment/trade-off with other related initiatives like FIT and RHI?

If you represent a Developer, Local Planning Authority, Building Control Department, or Energy Infrastructure supplier and are interested in taking part in an Allowable Solution trial, please contact info@zerocarbonhub.org

Further information
Allowable Solutions for Tomorrow’s New Homes - Towards a Workable Framework. Published in July 2011, this report sets out proposals developed in response to a Government call for a workable approach to Allowable Solutions.

Allowable Solutions - Evaluating opportunities and priorities. Published in September 2012, this follow up report evaluates the 2011 framework proposals after a period of review and sets out current thinking on front-running Allowable Solution project types.

Both reports are available to download from www.zerocarbonhub.org, or as hard copy from info@zerocarbonhub.org.

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This public information leaflet summarises current debate on Allowable Solutions and is part of the Zero Carbon Hub’s support for Government policy development in this area. It should not be viewed as Government policy and no commercial decisions should be made on the basis of the information presented.

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