ZERO CARBON HOMES
POLICY CONTEXT

Ross Holleron, Projects Director
24th June 2015
Role of the Zero Carbon Hub

Facilitate mainstream delivery of low & zero carbon homes

- Work with industry & government
- Understand risks and challenges
- Disseminate information
Where are you?
THE JOURNEY SO FAR......

2007
Building a greener future: policy statement

2008
UK GBC standard unattainable on many sites

2008
Jul 2008
ZCH created

2008
Aug 2008
PartL2008
No FEES

March 2011
New Government Regulated CO₂ only

2013
AS consultation launched

2013
PartL2010
SAP2010
FEES

PartL2013
6% improvement FEE considered

2016
All new homes to be zero carbon

2019/2020
EU Nearly Zero Energy Buildings

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Government Policy

Zero Carbon 2016
MEETING ZERO CARBON TARGETS

The Zero Carbon Hierarchy

- Energy efficiency
  - On-site low/zero carbon energy (and connected heat)
  - Allowable solutions

- Building fabric performance
- Carbon Compliance
  - On-site heat and power generation
- Zero Carbon Solutions
  - Addressing the carbon emission reductions that are difficult to achieve on site

95% Complete
75% Complete
5% Complete
THE FABRIC ENERGY EFFICIENCY STANDARD

Building Fabric:
- U-values
- Thermal mass

Thermal Bridging

Air-permeability

Orientation, solar gains, Glazing proportion
14 kg CO\(_{2(eq)}\) /m\(^2\)/year for low rise apartment blocks (four storeys and below).

A similar fabric specification can deliver the required performance (39 or 46 kWh/m\(^2\)/year) in these house types.

11 kg CO\(_{2(eq)}\) /m\(^2\)/year for attached houses

10 kg CO\(_{2(eq)}\) /m\(^2\)/year for detached houses

Detached house needs a slightly higher fabric specification to meet 46 kWh/m\(^2\)/year.
Ultimately subject to full Part L 2016 consultation
Allowable Solutions

100% On site
Beyond Carbon Compliance

D.I.Y
Retrofit, heat networks

3rd Party Contracting
Direct, LA, matching, brokerage

Invest in a Fund
Managing a portfolio of projects

Small site exemption announced
(10 units or less)
Cost to achieve Zero Carbon Standard

Design Includes:
- FEES standard
- Efficient gas boiler
- Photovoltaics
- Allowable Solutions
Annual Household energy spend....

- 4-bed Detached house: £2,460
- 3-bed Semi-detached: £1,670
- 3-bed Mid-terrace house: £1,430
- 1-bed Ground Floor Flat: £940

- Victorian with some modern day improvements
- New Build built to 2013 regulations
- New Build 2016 aspirations

Does exactly what it says on the tin.
Unintended consequences?
Raising awareness and knowledge

Delegates will be presented with the most recent information on the Zero Carbon journey and definition, plus the latest on both the Performance Gap project and the cost of meeting the Zero Carbon standard.

The event will provide practical knowledge to meet regulations as Saint-Gobain will be presenting information on a number of product solutions designed to meet the Zero Carbon target.

**Forthcoming Events**

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<tr>
<th>Date</th>
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<tr>
<td>8th July</td>
<td>Cardiff, Wales</td>
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<td>15th July</td>
<td>Llandudno, Wales</td>
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<tr>
<td>17th July</td>
<td>Eastleigh, South England</td>
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<tr>
<td>22nd Sept</td>
<td>Birmingham, Midlands</td>
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<tr>
<td>23rd Sept</td>
<td>Lake District, North West England</td>
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<tr>
<td>7th + 8th Oct</td>
<td>UK Construction Week, Birmingham</td>
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<tr>
<td>27th Oct</td>
<td>Liverpool, North West England</td>
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<tr>
<td>11th Nov</td>
<td>Greenbuild, Manchester</td>
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**Event Dates and Locations**

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>July</td>
<td>London</td>
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<tr>
<td>September</td>
<td>Scotland North East</td>
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<tr>
<td>October</td>
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<td>November</td>
<td>North West South West Wales</td>
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<td>December</td>
<td>Midlands</td>
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<td>March</td>
<td>South West</td>
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The event promises to demystify the Performance Gap; and highlight the latest learning from local domestic and non-domestic Building Performance Evaluation projects.

In collaboration with Innovate UK, CITB and Constructing Excellence.

Hear from our expert speakers on cutting edge research and knowledge.

For more information please visit our website: WWW.ZEROCARBONHUB.ORG
Thank you

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