

# The Chartered Institute of Building

response to

## Each Home Counts: Review of Consumer Advice, Protection, Standards and Enforcement for Energy Efficiency and Renewable Energy

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## Introduction

The Chartered Institute of Building (CIOB) is at the heart of a management career in construction. We are the world's largest and most influential professional body for construction management and leadership. We have a Royal Charter to promote the science and practice of building and construction for the benefit of society, which we have been doing since 1834. Our members work worldwide in the development, conservation and improvement of the built environment. We accredit university degrees, educational courses and training. Our professional and vocational qualifications are a mark of the highest levels of competence and professionalism, providing assurance to clients and authorities who procure built assets.

Professionalism at all levels and stages within the construction industry is at the core of our work. We play a leading role in the development and continued improvement of standards in the industry at a national and international level. We recognise the challenges facing the built environment, such as the unprecedented skills shortage in the professions, the need to decrease buildings' impact on the environment, and the complexity of developing policy that improves coordination, design and the overall decision-making process. We work with government and industry to outline and implement solutions to these issues and more.

The CIOB supports a commitment to energy efficiency and renewable energy as it has the potential (albeit potential that is not currently being realised) to transform the UK's building stock, assist in eliminating fuel poverty, and contribute to a successful and world-leading construction industry and green economy.

## General comments

The CIOB believes that this review demonstrates the government's commitment to improving the uptake of renewables and energy efficiency measures in the UK, and is to be welcomed. There are many positive points raised within the review, particularly with regard to protecting consumers, but our response will focus only on a select number of issues that we are most concerned about.

We detail a brief summary of the issues:

1. There is little mention about the failures of existing practices or regulation. While we appreciate that there is a desire to present a positive, solution-led review, and this is to be welcomed, lessons must be learnt from the past. There is little to no mention of the need for changes to industry bodies, practice or mention of the costs (both financial and environmental) of prior schemes.
2. There is no mention of the evidence that good maintenance and repair (i.e. making existing building fabric more energy efficient before considering retrofit) has on energy efficiency. Indeed, the BRE's Technical Director wrote in 2012 that the energy efficiency of a wall can be reduced by up to 40% due to dampness, thus emphasising that maintenance and repair is an energy efficiency measure in itself: <http://www.buildingconservation.com/articles/solid-wall-construction/solid-wall-construction.htm>
3. The emphasis on 'industry led' is a worrying one considering the problems that currently exist can be traced to a lack of input from well-informed and competent consultant professionals. Although problems in Preston, Lancashire are mentioned, there is no mention of the substantial evidence of problems (see list/links below) much of which has been developed by BRE or other experts and funded by

Government. Only by first being aware of potential problems can the means by which they are addressed be developed:

- a) 2010, Sustainable refurbishment of non-traditional housing and pre-1920's solid wall housing, C King and C Weeks, BRE Press
- b) 2013, Reducing thermal bridging at junctions when designing and installing solid wall insulation, C Weeks, T Ward and C King, BRE Press:  
<https://www.brebookshop.com/samples/327295.pdf>
- c) 2014, In-situ measurements of wall u-values in English housing, BRE/DECC:  
[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/409428/In-situ\\_u-values\\_final\\_report.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/409428/In-situ_u-values_final_report.pdf)
- d) 2015, Report on failure rates and remediation costs for external and cavity wall insulation, BRE Client Report 303-500 prepared for Wales Low and Zero Carbon Hub: <http://www.cavityclaimuk.com/bre-report.pdf>
- e) 2016, Designing out unintended consequences when applying solid wall insulation, C King and C Weeks, BRE Press:  
<https://www.brebookshop.com/details.jsp?id=327632>
- f) 2016, Post-installation performance of cavity wall and external wall insulation, BRE Wales for Constructing Excellence:  
[http://www.cewales.org.uk/files/3014/7671/0110/Post\\_Installation\\_Performance\\_of\\_Cavity\\_Wall\\_External\\_Wall\\_Insulation.pdf](http://www.cewales.org.uk/files/3014/7671/0110/Post_Installation_Performance_of_Cavity_Wall_External_Wall_Insulation.pdf)
- g) 2016, Solid wall heat losses and the potential for energy saving - consequences for consideration to maximise SWI benefits: A route-map for change, lead author C King, BRE Press  
[https://www.bre.co.uk/filelibrary/pdf/projects/swi/UnintendedConsequenceSRoutemap\\_v4.0\\_160316\\_final.pdf](https://www.bre.co.uk/filelibrary/pdf/projects/swi/UnintendedConsequenceSRoutemap_v4.0_160316_final.pdf)
- h) Reported presentations by Colin King of BRE on Unintended Consequences: 2014 Ecobuild: <http://www.slideshare.net/BREGroup/colin-king-ecobuild-6-march-2014> (*this presentation on failures in retrofit of inter-war buildings highlighting that the problems extend far beyond the 1919 "cut-off" commonly applied for traditional buildings*)
- i) 2015 presentation to CoRE:  
<http://www.staffordarea.saveyouenergy.org.uk/how/news/archive/Unintended%20consequences> *"BRE has documented many examples of homes that have had the wrong material applied badly and with little or no attention to detail. This is storing up trouble for the future as a result of cold bridging, moisture retention, and condensation. This will not only cause deterioration of the building fabric, but also could impact the health of occupants, due to damp and mold inside the house. This evidence forms part of a report to government focusing on these 'unintended consequences' of EWI, which has yet to be published."*
- j) 2012, Responsible Retrofit, STBA:  
<http://www.spab.org.uk/downloads/STBA%20RESPONSIBLE-RETROFIT.pdf> and STBA's Responsible Retrofit Knowledge Centre and Guidance Wheel: <http://responsible-retrofit.org>

4. Whereas numerous published reports mention the fundamental differences between traditional buildings and others, this review makes no mention of it. As cited in many reports, traditional buildings require a different understanding and very often different treatment. Note that traditional buildings, which are solid walled, make up over a quarter of UK building stock.
5. On Recommendations 6 and 7 regarding the Information Hub and Data Warehouse, these are excellent ideas, providing that it includes information about traditional buildings and on a public interest basis with genuine impartial advice.
6. On Recommendations 8: a new framework will lack effectiveness and credibility unless the proposed Quality Mark and Framework are amended to ensure that those using the Mark have demonstrable knowledge of traditional building construction and that only appropriate works and measures are specified and implemented. Also, that the Code of Conduct, Consumer Charter, and Codes of Practice and Standards have building-specific advice, techniques, materials and skills applied to buildings of traditional construction. The approach, specification and implementation should follow BS 7913:2013, and with due regard to special consideration for buildings of traditional and breathable construction within Part L1B of the Building Regulations.
7. In Recommendation 9, it says that issues must be addressed in the broadest sense. We believe this should mean taking an holistic approach and dealing with the energy efficiency of existing fabric first alongside understanding that traditional buildings are different.
8. In Recommendation 11, we note that it does not mention building pathology, which is covered in BS 7913: 2013 and stated as absolutely essential. Training should include, at the very least, the CITB Energy Efficiency & Retrofit of Pre-1919 Traditional Buildings Level 3 Award for everybody (from designers to installers) – this includes building pathology if a genuinely holistic approach is to be taken.
9. Under ‘vision’ the review mentions ‘access to the latest standards and best practice guidance’. If this is undertaken, this must include BS7913: 2013.
10. On the Retrofit Task Group, it is important that this group has genuine traditional building expertise with a comprehensive and broad knowledge of best practice such as contained within BS 7913: 2013. We understand that this is developing under the auspices of BSI and it would be uncomfortable if an output from BSI did not comply with one of its own standards. We consider that the work of this group to be of particular importance as, if its output is flawed, the training that follows will also be flawed.

In conclusion, we feel that the problems with traditional buildings in particular, which are known and information on which is in the public domain, have not been fully considered. We believe that unless an approach is taken that properly understands and deals with these problems, then the industry risks reputational damage and it will be building occupants and the environment that will suffer the most.

The CIOB is happy to meet and assist in developing proposals that are more suited to the UK housing stock.

