



Building a Greener Britain



Transforming the UK's Existing Housing Stock by Gavin Killip

Environmental Change Institute, University of Oxford

A report for the Federation of Master Builders



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Executive Summary

The Government has set itself an ambitious target to cut the UK's carbon emissions (CO₂) by 60% by the year 2050, although recent climate science suggests this figure should be revised upwards to 80%. With 27% of the UK's CO₂ emissions coming from energy use in homes, action is clearly needed in this sector if a national target of 80% CO₂ reductions by 2050 is to be met.

Several studies using computer modelling and scenarios have shown that deep cuts in CO₂ emissions from the UK's housing stock are indeed possible, but that existing policies will not take us far enough. It is not enough to be working towards zero carbon new homes, important though that work is. Refurbishment of the existing housing stock to advanced, low-carbon standards is needed as well. A small number of demonstration projects show that it is technically feasible to achieve large enough reductions in CO₂ emissions in the existing stock while maintaining comfortable, healthy homes as well as reducing the impact on householders from future energy price rises.

What is needed is a coherent strategy for the existing housing stock that mirrors the approach that is now being taken with new house-building: an ambitious future standard has been set (zero carbon new homes by 2016 in England; by 2011 in Wales; and advanced, Scandinavian-inspired standards in Scotland), with intermediate milestones. The house-building industry is now taking this ambitious target seriously and facing up to a period of major change. A similar long-term policy signal is needed in the refurbishment sector in order to give industry sufficient confidence to make the necessary investments to begin to meet the challenge. Investments are needed in training and skills just as much as in the development of products and supply chains.

Existing energy efficiency programmes, based on a list of 'cost effective' measures, need to be continued in the short term but achieving deep cuts in CO₂ emissions from existing homes will require a transition from the measures-based approach towards a standards-based approach. This has far-reaching consequences in terms of the stakeholders involved in delivering the changes required and the policy framework which is needed to stimulate industry to innovate.

The stakeholders involved in refurbishment are quite different from those involved in new house-building, with the smaller businesses in the construction industry being typically involved in repair, maintenance and improvement (RMI). Over £23 billion per year is spent on RMI works to existing housing, and much of this is a missed opportunity in terms of low-carbon refurbishment. Energy performance has begun to be visible in the housing market with the introduction of Energy Performance Certificates (EPCs), and the UK has an opportunity to build policies, skills programmes and financial incentives around the EPC. For building firms and product manufacturers and suppliers, this represents a new business opportunity, which is estimated here (based on limited data) to be worth between £3.5 billion and £6.5 billion per year. One key to minimising costs and the disruption involved in these more substantial refurbishment works is to seize every opportunity. Where householders or landlords are undertaking other works, the Small and Medium-sized Enterprise (SME) construction firms who generally carry out this work need to be ready and equipped to offer low-carbon options as part of that service. These firms are beginning to be aware of this potential new market.

SME construction firms have well established ways of working which need to be considered when developing policy ideas and strategies for making low-carbon refurbishment mainstream. Key to a successful transition is to ensure that the refurbishment works that building owners specify are 'buildable'. This concept is based around eight items on a practical checklist. If the buildability criteria are all met, then the SME construction sector is more likely to accept changes to custom and practice, and become a willing and able partner in delivering a low-carbon housing stock.

A clear policy signal from government is needed to start a process of innovation, skills development and capacity-building in the construction industry, moving towards a future standard for housing refurbishment that is consistent with an 80% reduction in CO₂ emissions by 2050. There needs to be a consistent commitment and vision for the medium- to long-term, so that the industry can respond by beginning to innovate in the key areas of training and supply chains.

Recommendations

Recommendation 1: Department for Communities and Local Government (CLG) to review the implementation of EPCs and make the necessary changes to improve accuracy and reliability.

Recommendation 2: CLG in partnership with local authorities to set up a national database of EPC ratings and use it as a tool to improve understanding of local stock conditions and to aid targeting of interventions.

Recommendation 3: Scottish Government and CLG to implement consequential works policies for existing housing as part of the next revision to Building Regulations Approved Documents Part L (England & Wales) and Part J (Scotland).

Recommendation 4: Trade associations to work with the Energy Saving Trust and others to review both the content and distribution channels for existing information, aiming to make it more widely available to SME builders in ways which fit better with established custom and practice (for example, promotion via trade associations; free publications at builders' merchants; linked to product promotions in association with manufacturers and merchants; and materials promoted via the trade press).

Recommendation 5: Government to work within the institutions of the European Union to establish a Value Added Tax (VAT) framework which allows permanent reduced rates on domestic property renovation and repair.

Recommendation 6: Government to apply a 5% VAT rate on housing refurbishment across the UK, not just the Isle of Man, as soon as possible.

Recommendation 7: Government to review options for innovative uses of financial incentives, using Council Tax rebates as a delivery mechanism (but using funding from other sources to finance the rebate in order to maintain Council Tax receipts and local service delivery).

Recommendation 8: Energy Efficiency Partnership for Homes to commission research on the knock-on benefit to the green mortgage market of any future tax rebates as financial incentives for low-carbon refurbishment.

Recommendation 9: Government to introduce a feed-in tariff to stimulate greater uptake of micro-generation technologies.

Recommendation 10: Government and other stakeholders to consider the need for 'buildability' when proposing innovation and change in established practices among SME construction firms.

Recommendation 11: Government to send a strong policy signal of its long-term commitment to low-carbon refurbishment, so that manufacturers and suppliers can invest early and with confidence in the development of the necessary supply chains.

Recommendation 12: ConstructionSkills to co-ordinate a review of existing training (including short courses) and develop a strategy for incorporating standards-based, low-carbon refurbishment into National Occupational Standards.

Recommendation 13: ConstructionSkills and SummitSkills to develop a strategy for integration of skills in a 'whole home' target-driven low-carbon refurbishment process.

Recommendation 14: ConstructionSkills and SummitSkills to be involved in the development of a voluntary standard (or set of standards) for low-carbon refurbishment, which is consistent with an 80% reduction in CO₂ emissions from all energy use in the entire housing stock by 2050.

Recommendation 15: From 2009, the new Homes and Communities Agency to take forward the development of a voluntary low-carbon standard for refurbishment in the social housing sector in England.

Recommendation 16: CLG to co-ordinate a study tour of relevant European countries for key UK stakeholders to learn about refurbishment standards and their implementation.

Recommendation 17: Government to set out a timescale and policy framework for establishing mandatory refurbishment standards that are consistent with an 80% CO₂ reduction target by 2050.

Recommendation 18: Regional and devolved development agencies to initiate/coordinate partnerships that are relevant and useful to the development of the low-carbon refurbishment agenda.



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Federation of Master Builders
Gordon Fisher House
14/15 Great James Street
London WC1N 3DP
T: +44 (0)20 7242 7583
F: +44 (0)20 7404 0296
www.fmb.org.uk



Printed in the UK on SATIMAT GREEN 50:50 recycled paper



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