

# Report outlines measures to cut carbon emissions from buildings

January 25 2012

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The report suggests policies to help to cut energy usage and reduce carbon emissions from UK buildings.

(PhysOrg.com) -- A new report from the Environmental Change Institute at Oxford University today outlines its strategy to transform the UK's built environment.

The report suggests a raft of recommendations to enable the government to come closer to meeting its legal obligations to reduce carbon dioxide emissions from buildings to zero by 2050.

The report, *Achieving Zero* by Dr Brenda Boardman, covers all [energy](#) use in all buildings – homes and businesses. The strategy aims to create healthier, more comfortable buildings to live and work in, lift millions of people out of fuel poverty, and improve the UK's energy security.

Report author Dr Brenda Boardman, who is an Emeritus Fellow of the [Environmental Change](#) Institute, suggests a strong legislative framework to reduce energy demand together with a range of supportive policies will help to cut energy usage and reduce carbon emissions from UK buildings. The measures would also cut the cost of annual [energy bills](#), particularly important for the millions of householders who live in fuel poverty, says the report.

Among the key recommendations and aims are:

- \* The government should introduce progressively more challenging, legally-binding standards of energy efficiency for properties, based on Energy Performance Certificates. The owners of 26 million homes and 2 million businesses in the UK would be required to demonstrate energy efficiency in their buildings;
- \* The government must work strategically and quickly with local government to create Low Carbon Zones targeting homes where people can't afford to pay their energy bills. There is a legal obligation to eradicate fuel poverty (where reasonably practicable) by 2016 under the Warm Homes and Energy Conservation Act of 2000, but meanwhile numbers are rising. The rate of activity required would mean that for every hour over the next 39 years, 82 existing buildings would be retrofitted to the level of band A on the energy performance certificate;
- \* Progress would be measured through annual energy bills, as portrayed on Display Energy Certificates in all businesses. For households, total energy consumption would be linked to a policy, such as personal carbon allowances, which can be tapered down over time. The building improvements would be the responsibility of the property owner, with the government providing zero-interest loans to low-income owner occupiers. Once minimum standards were introduced, more energy-efficient properties would become more valuable;

\* By 2050, electricity use in each property would be halved and supplied solely from renewable electricity on the grid as a result of EU policies on lights and appliances, enhanced by the UK government.

Dr Boardman said: 'Achieving zero describes a triple-win situation through jobs, improvements to infrastructure, and energy security. It presents opportunities to create new jobs all over the country, through enhancing the value of our built environment.

'We already spend £35bn a year on improving and maintaining our buildings. We need to refocus nearly half of this, around 40 per cent, into [energy efficiency](#) rather than spending our money on expensive kitchens and conservatories.'

*Achieving Zero* concludes that the proposals are necessary, although maybe not sufficient, to ensure the government meets its own legal obligations to reduce damaging [carbon emissions](#) and eradicate fuel poverty.

Provided by Oxford University

Citation: Report outlines measures to cut carbon emissions from buildings (2012, January 25) retrieved 9 April 2024 from <https://phys.org/news/2012-01-outlines-carbon-emissions.html>

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