



WWF *for a living planet*

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Parliamentary briefing

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Energy Efficiency and Microgeneration

Climate Change and Existing Housing

In order to avoid irreversible and extremely damaging climate change, the overwhelming scientific consensus globally is that atmospheric greenhouse gas concentrations must be stabilised at a maximum of 450 parts per million (ppm)¹ of CO₂ equivalent.

This would require all developed countries to cut emissions by at least 80% from 1990 levels by 2050. WWF Scotland's recent report **Carbon Countdown for Homes** considers how an 80% reduction could be achieved in existing homes in a Scottish context and provides a route map to achieving an 80% reduction by 2050 and an intermediate target of a 35% reduction by 2020.

While the focus for the report is Scotland and Scottish powers, there is a clear need to support relevant reforms at a UK Government and EU level.

Importance of improving existing housing

To date, most policy initiatives on low and zero carbon housing have focused on new homes. Existing homes have not been addressed by the same degree of policy ambition, despite the fact that over 85% of homes standing today will still be lived in by 2050.

Improving residential energy efficiency is one of the most cost-effective ways of reducing carbon emissions and addresses fuel poverty at the same time.

Urgent investment and action is required to seize this opportunity.

The Scottish Energy Study put forward estimates that the residential sector accounted for 34% of total energy demand and 33% of CO₂ emissions in Scotland in 2002, making it the biggest contributor to Scottish CO₂ emissions. The greater part of this residential energy use is in the form of space and water heating. As such cutting emissions from housing should have a central place in the Scottish Government's policies to attain its 80% emissions reduction target.

The need for a Retrofit Strategy

Carbon Countdown for Homes examines how Scotland's existing homes can be transformed into low carbon homes and cut residential sector emissions by 80%.

It outlines an integrated strategy to retrofit Scotland's existing homes with measures that will generally raise their energy performance and progressively cut their emissions.



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A retrofit strategy that will make progress towards emission reductions of 35% by 2020 and 80% by 2050 must include a complex package of measures on delivery, funding and capacity, and policies to promote emission reduction combined with strong leadership from government.

The package needs to go far beyond the government's current approach which relies on the voluntary uptake of short payback energy efficiency measures. In addition to basic insulation measures, a radical uplift in installations of measures such as solid wall insulation and microgeneration technologies is required. It should include a range of incentives to lever investment including rebates on local domestic tax. Finally, the strategy must apply to all Scottish homes.

Implementation of this strategy will require approximately a doubling of current investment for energy efficiency – between £500-600 million per year. Jobs related to retrofit could increase five-fold by 2020 given this level of investment and could be a welcome boost to the construction industry at this time. The broader benefits to Scotland's economy provide justification for the Scottish Government directing more investment to deliver better energy performance standards in existing housing.

Conclusions

With the integrated retrofit strategy recommended, early gains in emissions reductions could be achieved while addressing concerns of fuel poverty and health, and growing a new retrofit industry. It is clear that we must act now if we are to meet the 2050 target and avoid the worst damages of climate change – to people and nature.

Significant progress will require strong policies and financial support, sending an unequivocal message that all homes can and must be low carbon, warm and healthy. The level of investment required is minimal compared to the cost of doing nothing and delaying action will only add to costs. The Stern Review estimated the cost to the economy of mitigating the harmful impacts of climate change to be 10 times that of acting now.

Key Recommendations

Scottish Government needs to provide unambiguous leadership and set out progressive targets for improvement of the energy performance of existing housing – 35% emissions reduction by 2020 and 80% by 2050.

WWF Scotland, a member of the Bill Steering Group, backs the proposals set out in the Energy Efficiency and Microgeneration (Scotland) Bill for legislation to:

- Provide incentives, such as reduced business rates or reductions on Council tax, for business premises and domestic households who install new energy efficiency improvements and microgeneration measures.
- Require Scottish Government to set targets for energy efficiency and micro-generation and local authorities to consider such technology by setting targets and strategies to take this forward.
- Require all new building developments to ensure energy efficiency measures are installed as standard and include capacity for microgeneration (to deliver at least 15% reduction in projected emissions)
- Require annual reporting to Parliament on progress and implementation of these measures.

Scottish Government must make it simple and easy for home owners and landlords to improve the energy performance of the housing stock and do so with urgency.

To view the report commissioned by WWF Scotland, *Carbon Countdown for Homes*, go to:
http://assets.wwf.org.uk/downloads/retrofit_1.pdf

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