



**WWF** *for a living planet*

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## WWF response to CLG Committee Enquiry Existing Housing and Climate Change

### INTRODUCTION

WWF welcomes the opportunity to respond to the above enquiry. WWF has extensive experience and knowledge of the housing sector, formerly through the work of our One Million Sustainable Homes (OMSH) campaign and recently through our One Planet Homes campaign, and our work to deliver exemplary 'One Planet Living'<sup>1</sup> Communities across the globe with our partners BioRegional.

After extensive work to improve the performance of new build housing over the last five years, WWF has been turning its attention towards existing homes. As part of this we have commissioned a study from the Centre for Sustainable Energy and the Association for the Conservation of Energy to try and understand in more detail both the cuts in carbon emissions that are possible from the UK's existing housing stock – from 'cost effective' and more expensive measures – and what kind of policy and support mechanisms would be necessary to achieve this. This report will be completed by November 2007 and we would like to submit it to this enquiry once it is published.

WWF has also commissioned a study – with RSPB and IPPR – to assess what may be required to move the UK to a low carbon economy by 2050. This will build on and reinforce WWF's major asks on the UK Climate Change Bill, namely to ensure cuts of at least 80 % in carbon emissions by 2050, and to ensure the inclusion of emissions from aviation and shipping in this process. The housing sector's contribution to this low carbon trajectory is vital and essential policy requirements relating to the housing sector will be drawn out from this report. This report will be completed by November 2007 and we would like to submit it to this enquiry once it is launched.

WWF's work on ecological footprint and One Planet Living has demonstrated that it is not only vital to tackle the direct impacts of our homes, such as energy used for heating and lighting. The home can also be the major starting point for wider environmental awareness and enabling greener lifestyle choices. For example if homes are within walking access of public transport nodes, local food markets and recycling facilities it makes it much easier for residents to choose more sustainable lifestyle options and dramatically reduce their overall ecological footprint. The home is where people are most likely to experience direct financial benefits of environmental action, such as reduced fuel and water bills, or incentives such as reductions in council tax as per the British Gas and Braintree flagship scheme.<sup>2</sup>

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<sup>1</sup> One Planet Living® is a joint initiative of WWF and BioRegional based on 10 guiding principles of sustainability. The vision of One Planet Living is a world in which people everywhere can lead happy, healthy lives within their fair share of the Earth's resources.

<sup>2</sup> British Gas worked first with Braintree council and has extended the scheme to 58 councils to offer council tax rebates to people who install energy efficiency measures. Each household who invests in home insulation from



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Improved resource use in the home will also be vital if we are to address some of the key challenges of adapting to climate change, most notably improved water efficiency.

**i) The significance of existing housing compared to new build and the different levels of performance each display:**

There is no debate on the importance of addressing existing stock in terms of tackling the UK's carbon emissions. As stated in the introductory paragraph of the call for evidence, housing accounts for around a quarter of all carbon emissions in the UK. It also highlights that even with increased house building, '*homes built after 2007 are unlikely to account for more than a third of total housing stock by 2050*'.<sup>3</sup>

WWF has consistently argued that while it is vitally important that we address the performance of new build, to ensure that it does not add to the high carbon emissions levels already generated by housing, it is more important to tackle existing stock which represents around 99% of the UK's housing stock.

A typical SAP (Standard Assessment Procedure) rating for an average house in England is about 45 (using SAP 2005, where 1 is very poor and 100 is excellent). In contrast, a SAP 2005 rating on a house built to current Part L building regulations would be closer to 80 or more.<sup>4</sup> This demonstrates that new build (as long as it complies with Building Regulations) is significantly more energy efficient than most existing homes.

Furthermore, energy demand in the housing sector grew 17.5% from 1990 to 2003 – higher than the 7.5% growth for the economy as a whole during the same period. According to the Environmental Change Institute, since 1970, energy use per household has changed very little but because of a 30%<sup>5</sup> growth in household numbers (due to, for example, an increase in single person households) overall energy consumption has increased by 32%.

The main areas of energy demand are space heating, accounting for 60% of energy use, followed by hot water heating (25%) and lighting and appliances (15%). In the last thirty years gains in energy efficiency have been offset by an increase in thermal comfort levels and an increase in electricity use for lights and appliances.<sup>6</sup>

**ii) The respective roles of residents, homeowners, landlords, local government, central government and the energy industry in promoting and delivering greater energy efficiency:**

In order to tackle emissions arising from homes, it is clear that action by all of the above parties is crucial.

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British Gas under this scheme will receive a rebate of up to £100 from their local authority and could see energy savings of around £200 a year through installing loft and cavity wall insulation.  
<http://www.britishgas.co.uk/energy-efficiency/products/home-insulation/council-tax.html>

<sup>3</sup>CLG, 2007, *New Inquiry and Call for Evidence, Existing Housing Stock and Climate Change*

<sup>4</sup>NHER, 2007, [http://www.nher.co.uk/pages/consumer\\_centre/energy\\_ratings.php](http://www.nher.co.uk/pages/consumer_centre/energy_ratings.php)

<sup>5</sup>CLG, 2007, *Eco-towns Prospectus*

<sup>6</sup>Environmental Change Institute, 2007, <http://www.40percent.org.uk/40-percent-research/introduction/>

#### Residents

WWF understands residents to mean rental tenants in this context, and have answered on that basis. Residents suffer from the consequences of energy inefficient homes, through high bills and reduced thermal comfort, and a potentially unhealthy environment. Residents have little or no incentive to invest in energy efficiency measures (particularly those relating to building fabric) when they do not own the property and may live there for a relatively short period of time.

However, arguably the most significant impact residents can have on home energy efficiency is through their actions and behaviour within the home. It may be the case that without energy efficiency awareness, residents' behaviour may reduce or undermine efficiency improvements – for example through 'comfort taking' (when residents turn up the heating to live in a warmer home after efficiency installations, but pay the same energy costs as they were paying for a leaky, colder house before).

Widespread action is needed to ensure the provision of better home energy information to residents. The rollout of Energy Performance Certificates (EPCs) to the private rented sector will be a welcome start, and should be completed as soon as possible, but greater efforts are needed to ensure communication of these messages to tenants. Inclusion of EPCs in tenant's handbooks and contracts should be mandatory.

#### Landlords

There is clearly very little incentive for landlords to spend money on energy efficiency when they will not get the direct benefits through energy bills as tenants usually pay these. It is hoped that landlords will be more likely to act when they are required to produce an EPC, as prospective tenants may be able to negotiate reduced rental payments on the basis of predicted energy bills. However, WWF's anecdotal experience suggests that not enough people currently know about the EPCs for this to have a significant impact on the rental market. As stated above, WWF believes Government should invest in energy efficiency awareness campaigns for both landlords and tenants in order to remedy this, and also calls for mandatory inclusion of EPCs in rental packs.

#### Homeowners

Homeowners suffer from the direct negative impacts of an inefficient home, and therefore the direct benefits of improvements, through improved thermal comfort and reduced bills. However; this alone does not seem to have prompted significant take-up of even the most cost effective measures like cavity wall insulation so far. Around 11 million cavity walls remain uninsulated even though undertaking this measure makes very good financial sense (with a payback time of one to three years) and with limited disruption during installation.

Clearly then it is important to understand why homeowners do not act. Possible reasons include a lack of understanding of which measures should be installed, and their benefits. Furthermore, the 'hassle factor' related to finding an installer and living with the, often perceived, disruption of installation, and a lack of prioritisation of environmental issues in busy lives.

Again it is hoped that the EPC will help to make people more aware of the efficiency of their own home when they come to put it on the market, or when they're buying a new property. For the first time people will have this information in a clear and concise way which is a very

significant step forward. What remains to be seen is whether buyers act on the advice of the EPC, and install cost effective improvements.

Government should monitor the impacts of the EPCs on energy efficiency closely. Furthermore, those homes outside the sale/letting process will remain unaffected by the EPCs. WWF believes the Government needs to drive people to use the EPC to better understand the environmental performance of their home throughout its lifetime, not just at point of sale, to enable appropriate energy efficiency improvements and the consequent reduced fuel bills.

Again, the lifestyle and behavioural choices of homeowners are equally as important as the fabric of the home. Simple actions like turning off appliances, and making best and most efficient use of heating/cooling systems can have significant impacts on energy consumption. It is therefore vital that behavioural issues are considered, and of course that all appliances are as energy efficient as possible (WWF notes that this enquiry is not considering appliances).

#### Local Government

The local council is usually the first place where many people turn to ask for advice about home energy efficiency. If the local authority (LA) is not adequately informed or motivated to offer practical help this may be a wasted opportunity for positive intervention. LAs have the optimal interface with local people, and can provide help, advice and information. The LA should also offer fiscal incentives, such as reduced rates of council tax (see footnote 2). This should be supported through increased central government funding.

There has been a great deal of publicity about LAs fining ‘unsustainable’ behaviour (such as failure to recycle, or raising parking fees), but hardly any about financially rewarding sustainable actions. More widespread council tax rebates would provide a simple opportunity to change this, and help change the perception that environmental action is somehow ‘painful’.

However, council tax rebates should not be seen as some form of panacea. Despite the rebates, most environmental home improvements entail some level of capital expenditure by the homeowner/tenant, and it is essential not to restrict the assistance to the “able-to-pays”. If council tax rebates are provided, this will mean that the people most able to afford improvements (and by implication, most able to afford to pay their council tax) will get the rebates. To balance this, a much more sophisticated grant system than that presently utilised is required, to ensure the equity of installation and rebate.

#### Central Government

Central Government has a very significant role to play in terms of setting the aspirations for addressing existing housing, and putting in place the national policy to deliver against these aspirations, and providing funding for awareness and support programmes.

WWF welcomed the commitment in the Housing Act 2004 that by 2010 the general level of energy efficiency of residential accommodation in England would be increased by at least 20% compared with the general level of such energy efficiency in 2000. We further welcomed the Government’s recent commitment that all homes should be ‘low carbon’ within 10 years. We feel this is setting a challenging but realistic target for greater energy efficiency in this sector. However, unlike in Germany, where the Chancellor has committed that 5% of the housing stock

be improved year on year, and set in place policy measures and committed the necessary finance to enable it<sup>7</sup>, the UK Government has not yet outlined how it intends to achieve the goal.

WWF was deeply disappointed that during the last review of the building regulations (Part L), the Government withdrew a proposal for 'consequential improvements' to be required in existing homes when people increased the carbon footprint of their home (for example by building a conservatory). This was in spite of the fact that the majority of respondents were in favour of the measure. WWF would urge Government to reinstate this proposal in the next review of Part L, and implement it in 2010. This is a vital measure to rein in future incremental growth of the carbon footprint of our existing stock, and will help close a blatant environmental loophole.

As well as regulatory measures, WWF thinks that central Government must also offer national fiscal incentives and support LAs in the delivery of local rebates. For example, the recent stamp duty land tax exemption for new zero carbon homes could be extended to existing homes when people undertake to improve on their home's EPC within a certain time after moving in. However; it should be noted that the zero carbon definition being employed for this exemption for new homes is unnecessarily restrictive and should be aligned with more realistic targets, as set out in the Code for Sustainable Homes. WWF has responded separately to the Treasury's informal consultation on the zero carbon stamp duty land tax relief. A copy of our response can be made available to the Committee if requested.

Other financial incentives should include the provision of long-term loans attached to a home, to be paid back over a period of say, 25 years, to enable extensive renovation work to be undertaken. This could be provided in partnership with mortgage companies.

Central Government should also invest more in greater support services for energy efficiency. Currently, Energy Efficiency Advice Centres are available but not many people know about them, and anecdotal evidence suggests that some information provided by them can be too generalised (i.e. not house specific). The Government needs to better understand the factors which motivate people to take environmental actions.

Government needs to build on the awareness of the issues that people already have and drive action in these areas. In doing so, government must understand that the motivation for action is different for different people: a sense of responsibility, providing a better future for their children, fostering community spirit, personal gain, monetary savings etc. Furthermore, it is essential to recognise that national policy without local action and implementation is meaningless. Although short term wins are possible in changing behaviour patterns, it is crucially important to focus attention on the way people behave in the long-term, and not just about changing actions in the short term. This type of behaviour change happens best when people take action together – thus, more support for collective action is needed, and not a constant reliance on isolated, individual behaviour change.

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<sup>7</sup> According to the Environmental Audit Committee 'The German Government has said it intends to quadruple the annual budget for encouraging energy efficiency from €360m (£240m) a year to €1.5bn (£1bn) a year. Interestingly, it has also switched from financing loans to funding direct subsidies because it believes that direct fiscal incentives are more likely to have an impact. The German approach to fiscal incentives contrasts sharply with the lacklustre way in which ODP, DEFRA and the Treasury have responded to the question of fiscal incentives, which not only speaks volumes about the real level of importance and commitment afforded to this issue, but also paints a very depressing picture of complacency and apathy which we believe is all too evident in these departments.' – March, 2006, <http://www.publications.parliament.uk/pa/cm200506/cmselect/cmenvaud/779/77907.htm>

The Government should also invest heavily in extending the Low Carbon Buildings Programme to offer grants for appropriate community and household renewable energy technologies. Attempts by government to defend claims to be supportive of the microgeneration industry are futile without this massive uplift in investment. Furthermore, Government needs to roll out an information service relating to this Programme to bolster public awareness and confidence in the scheme.

Energy industry

The UK energy industry has several minimum regulatory measures to work within which aim to reduce the negative environmental impacts of certain parts of the industry. These include the Renewables Obligation (RO), the Carbon Emissions Reduction Target (CERT) and then from 2011-2020 the Government has committed to some form of Supplier Obligation (SO) – a cap and trade scheme coupled with a reduction in the amount of energy supplied to households, in an effort to reduce energy demand and carbon emissions.

The aim of the SO is to encourage; a new relationship between energy suppliers and customers; the decoupling of profits and units of energy supplied; and the development of new energy services companies, so that the present energy supply market is transformed.

Energy companies should take a lead by exploring and committing to a number of new proposals to help them in the transition to a low-carbon economy. These could include; increasing investment in large and smaller-scale renewables, trialling new and innovative energy and carbon saving measures in households, such as attractive loans, installing solar thermal and smarter metering, and seriously considering the carbon benefits of introducing a new increasing block tariff type of structure in the bills to households.

WWF has recently published a report – *Waste Not, Want Not, Water and Energy Tariffs for Sustainability* – outlining new pricing structures for household energy and water that will help to address the increasing environmental impact of rising demand. WWF has included this report<sup>8</sup> as part of our response to this enquiry.

**iii) EPCs and the provision of information to households/buyers:**

See above

**iv) Government efforts so far through public/private sector, including Decent Homes:**

WWF congratulates the Government for leading the way on energy efficiency through the public sector. In the new build sector the Government has led the way by committing to the Code for Sustainable Homes level 3, and for existing public housing stock, many homes that were previously in dire states of repair have been ameliorated by the Decent Homes programme.

However, from a thermal efficiency perspective, the Decent Homes programme does not go beyond the very minimum acceptable standards for thermal comfort, and the Government has

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<sup>8</sup> [http://www.wwf.org.uk/filelibrary/pdf/energy\\_water\\_summary\\_final.pdf](http://www.wwf.org.uk/filelibrary/pdf/energy_water_summary_final.pdf),  
[http://www.wwf.org.uk/filelibrary/pdf/water\\_tariffs\\_report01.pdf](http://www.wwf.org.uk/filelibrary/pdf/water_tariffs_report01.pdf),  
[http://www.wwf.org.uk/filelibrary/pdf/energy\\_tariffs\\_report.pdf](http://www.wwf.org.uk/filelibrary/pdf/energy_tariffs_report.pdf)

not made enough resources available to fund greater improvements. Arguably it would have been preferable for this refurbishment programme, which has been extensive, to invest in greater efficiency from the start rather than having to retrofit those houses again to bring them up to better SAP standards.

WWF believes that over the medium-term, Government should require that all publicly-owned existing housing stock be assessed against the *EcoHomes for Existing Buildings* standards, developed by BRE and the Housing Corporation, with targets set for improvements, and Central Government financial support for councils and housing associations to enable this. This will not only provide significant environmental savings, it will also help to lower residents' water and energy bills and protect them against future price increases.

WWF suggests that the Government should use existing public sector stock to demonstrate how improvements should be made, providing best practice exemplar schemes to complement the 'eco-towns' which will demonstrate best practice in new build.

Government efforts to tackle the private sector have amounted to very little so far. The Government has made very few interventions and indeed, as stated they actively backed away from imposing further requirements for energy efficiency in existing homes through Part L. WWF believes this was a significant missed opportunity to make massive cuts in carbon emissions.

We therefore strongly recommend that the Government commits to a 'Germany-style' programme to address the energy efficiency of our existing homes with fiscal incentives in place to enable it.

**v) The technologies available to reduce emissions:**

There are a number of challenges in the existing stock which require innovative solutions. Perhaps first amongst these is insulation for solid walls. WWF understands from the current BERR consultation, *Draft Strategy for Sustainable Construction*, that work is being carried out to research options for solid wall insulation, and we look forward to the results.

WWF also welcomed the recent easing of planning restrictions for both community and individual building renewables. However, it is essential that residents undertake efficiency measures first to ensure optimum use of renewable energy, and it must be ensured that appropriate renewables are being installed. It would be counter-productive for there to be a backlash against badly sold and installed renewable technologies because they fail to meet expectations of energy supply.

New and innovative technical solutions are needed like a switch which turns off all non-essential plugs (for example at night or during holidays, to prevent appliances wasting electricity and make it easier for residents) should also be examined and perhaps incorporated into future revisions of Building Regulations.

**vi) The costs associate with reducing carbon emissions from existing housing:**

WWF believes it is a false economy to take a short-term view of cost when it comes to energy efficiency. Many measures such as energy efficient light bulbs and insulation will require upfront capital costs, however the pay back time for these measures is very short and the carbon

savings are significant. Using the right technologies and measures means that saving carbon and cutting bills can go hand in hand.

We're carrying out research, as outlined above in the introduction, on the costs associated with slashing the carbon emissions from the UK's existing stock. This report will be completed by November 2007 and we would like to submit it to this enquiry.

**vii) Specific challenges which may arise in relation to housing of special architectural or historical interest:**

WWF has no expertise in this area.

CLIMATE CHANGE ADAPTATION: WATER EFFICIENCY

WWF maintains that however successful we are in reducing carbon emissions, the UK needs a comprehensive strategy for adapting to the effects of climate change, some of which we have already experienced. Among the most significant predicted impacts of climate change in the UK will be reductions in precipitation in certain regions, and this will place increased pressure on our already stretched domestic water supplies. Significant progress has been made in considering improved water efficiency in new housing. The challenge now lies in reducing water use in the existing housing stock.

The UK lags significantly behind other European countries in addressing water efficiency. In the UK, each person uses on average 150 – 180 litres per day. However, as a result of determined action, countries such as Germany have been able to reduce this to 125. We must follow their example.

In 2006, WWF was part of a coalition of organisations (between them representing over 6 million people) who published the Blueprint for Water.<sup>9</sup> The Blueprint set out a clear plan to achieve sustainable water management in England and Wales. Among these were steps to address water efficiency in existing housing.

WWF believes the Government should publish plans to install a water meter in every home. The WWF report,<sup>10</sup> included as part of this response, has made a strong case for the installation of water meters. More than 90 studies of international experience and UK trials have unambiguously demonstrated that introducing metering and increasing block tariffs would lead to a sustained reduction in demand of at least 10%, with reductions of up to 30% in peak (summer) demand, when water availability is at its lowest. Meters can be accompanied by tariffs that protect vulnerable customers and penalise wasteful use.

WWF recommends that DCLG should introduce mandatory high water-efficient standards for fixtures and fittings to be installed in existing homes. The Government must also give strong guidance to OFWAT to approve water company investment in fitting water-efficient devices and appliances into existing homes. WWF understands that consumers must be empowered and incentivised to use water more efficiently by a combination of standards set by the Government and corresponding services and products provided by businesses and the water industry.

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<sup>9</sup> [www.blueprintforwater.org.uk](http://www.blueprintforwater.org.uk)

<sup>10</sup> *Waste Not, Want Not – Sustainable Water Tariffs* - [http://www.wwf.org.uk/filelibrary/pdf/water\\_tariffs\\_report01.pdf](http://www.wwf.org.uk/filelibrary/pdf/water_tariffs_report01.pdf)