Turning down the heat
Foreword

In the 21st Century it is surely the right for everyone to have a warm, well insulated, damp free home. This right balances our responsibility to tackle the biggest threat to face the planet – climate change. Insulating our homes to prevent heat loss means we use less fuel. Using less fuel reduces the output of CO$_2$ emissions created from our present use of fossil fuels. It also simply saves money – a real win-win situation.

The Executive has already done much good work in home energy efficiency, assisting the fuel poor. However the numbers of fuel poor fluctuates more or less with the cost of fuel. The real long term solution to relieve fuel poverty, reduce domestic emissions of CO$_2$ and save money for everyone is to ensure that all homes achieve high levels of energy efficiency – and I believe that setting a national target for domestic energy efficiency is vital to achieve this. We have a long way to go to achieve Scandinavian standards of home insulation. As a house builder told me “until we are asked for energy efficiency rating before gold taps in the bathroom then there is no incentive for us to address this.”

This Bill will set national targets on home energy efficiency to ensure we meet this challenge of providing a warm home for everyone in Scotland and doing our bit to reduce climate change.

Yours

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The Home Energy Efficiency Targets Bill

The intention of the Bill

The purpose of the Bill is to set national domestic energy efficiency targets for Scotland. It is anticipated that the Bill will set a target for a percentage improvement in domestic energy efficiency by a specified date, with a second target for further improvement by a later date.

The Bill will not prescribe the means by which the targets will be reached. However, the Bill will require the Scottish Executive to draw up an action plan to lay out how it intends these targets to be met and it will require the Executive to report regularly on its progress.

Why this Bill is needed

There are a number of existing initiatives to improve energy efficiency of households in Scotland. However there is no overall national, strategic approach to domestic energy efficiency. Just as targets are set in other policy areas, such as the generation of electricity from renewable sources or eradicating fuel poverty, this Bill will set targets for domestic energy efficiency. This would set mandatory targets for the Executive to reach, requiring it to devise an action plan of initiatives in order to achieve this target. Current initiatives could be included in the new action plan. The Executive would have to monitor the success of these initiatives in order to report regularly on progress and ultimately Executive Ministers would be held accountable for reaching the target.

The benefits of the Bill

It is intended that the benefits of this Bill will be twofold. Actions arising from the Bill could make a substantial contribution to eradicating fuel poverty and will also be of benefit to the environment by reducing energy use and therefore emissions of global warming gases.

Increased domestic energy efficiency will mean less cold, damp, draughty homes and therefore lower fuel bills for individual households. This is a vital aspect of getting, and keeping, people out of fuel poverty.

Increasing the energy efficiency of homes will also result in the burning of less fossil fuels (oil, coal and gas) resulting in lower emissions of global warming gases. This will play a key role in helping to reduce the impact of climate change.

Background

Fuel poverty

The Scottish Executive uses the following definition of fuel poverty:

“A household is in fuel poverty if, in order to maintain a satisfactory heating regime, it would be required to spend more than 10% of its income (including Housing Benefit or Income Support for Mortgage Interest) on all household fuel use.”

\(^i\)
The Scottish Executive has set a target of eradicating fuel poverty by 2016. ii

Fuel poverty arises from a combination of factors. The three most significant are household income, the cost of fuel and the energy efficiency of the home.

Fuel poverty has a damaging effect on quality of life and particularly on health. Flu, heart disease and strokes are all made worse by the cold. Cold homes can also lead to an increase in fungi and dust mites, both of which exacerbate conditions such as asthma. Households in fuel poverty often have to make difficult choices about their spending, sometimes having to choose between having a warm home or having enough food to eat.

Every year in Scotland, people die unnecessarily due to fuel poverty. In Scotland in 2002/3 the excess winter deaths figure was 2,510. iii Fuel poverty particularly affects older people, those with a disability or long term illness and young people.

The UK has a higher number of avoidable winter deaths than other European countries with similar climates and standards of living. According to National Energy Action: "Whilst it is generally agreed that factors affecting excess winter mortality are varied and complex there is a strong relationship between thermal standards in housing and excess winter deaths." iv

The Scottish House Condition Survey (SHCS), the largest single housing survey undertaken in Scotland and the only national study to look at the physical condition of dwellings as well as interviewing occupiers, reported in 2002 that an estimated 266,000 households (some 13%) are fuel poor. Of these, 24% (69,000) are in extreme fuel poverty – that is they would have to spend more than 20% of their income on fuel to maintain the standard heating regime. Approximately half of the reduction in fuel poverty since the 1996 SHCS report can be attributed to increases in household incomes. Lower fuel prices account for 35% of the change and improvements in the energy efficiency of the stock a further 15%. v

The 2002 SHCS also reported that “approximately 131,000 (6%) of dwellings in Scotland are affected by some form of dampness… Condensation affects around 229,000 (11%) of dwellings and mould growth is found in 233,000 (11%).” vi

Energy prices have fallen in recent years, due to competition and effective regulation in the domestic energy market. However, the Department for Trade and Industry produced an analysis of fuel prices for Defra’s Fuel Poverty Action Plan which predicts that energy prices could rise by 10% between 2003 and 2010. There is a limited opportunity for the Scottish Executive to exert influence in this area because most energy policy is reserved to Westminster.

The Scottish Executive also has limited powers to reduce fuel poverty by increasing the income of households, since powers over benefits and taxes are also reserved to Westminster.

However, by focussing on energy efficiency the Scottish Executive could significantly reduce the numbers of those in fuel poverty in Scotland and not only that, but keep those households out of fuel poverty in the long term.

The intention of the Bill is that it will result in a tangible and consistent improvement in energy efficiency in households in Scotland and, by the same token, a tangible and consistent reduction in the number of households suffering the effects of fuel poverty.
Environmental benefits of energy efficiency

Global warming gases are causing climate change. Climate change is widely recognised as the most serious threat facing our planet. Sir David King, the UK Government’s Chief Scientific Advisor, stated in an article in the journal Science in January 2004 that: “In my view, climate change is the most severe problem that we are facing today, more serious even than the threat of terrorism.”

Climate change is occurring due to an increase in carbon dioxide (CO$_2$) and other gases in the atmosphere which are trapping heat and warming the planet, often known as the greenhouse effect. The gases come mainly from burning fossil fuels (oil, coal and gas) but other gases such as methane (CH$_4$) and fluorinated refrigerants also have significant global warming potential. The warming of the atmosphere is affecting the climate of the whole planet, and the effects are already being felt. Unpredictable and extreme weather events, including floods, droughts and storms are increasing. Global average temperatures are rising and ice caps are melting. Sea levels will rise and changes in ocean currents may take place resulting in further dramatic climatic change.

The UK Government has accepted the Royal Commission on Environmental Pollution’s recommendation that the UK must put itself on a path towards a reduction in CO$_2$ emissions of some 60% from current levels by 2050 in order to mitigate the effects of climate change.

The UK Energy White Paper (2003) Our Energy Future noted that energy efficiency will be needed to deliver half of the Government’s target of 60% reduction in carbon dioxide emissions by 2050. This Bill will play a significant part in helping to achieve the overall levels of energy efficiency required to meet the UK Government’s target on carbon dioxide emissions.

In November 2000, the Scottish Executive published the Scottish Climate Change Programme which set out the policy areas that the Executive planned to tackle to ensure it made an equitable contribution to the UK climate change targets. The programme document contained the following pledge:

“Climate change is for real: it is happening – we in Scotland have to play our part in [the] global effort to reduce emissions.”

Scotland does not have its own greenhouse gas emissions targets, but has pledged to make what it terms an ‘equitable contribution’ to the overall UK targets. Under the Kyoto Protocol, the UK has pledged to reduce greenhouse gas emissions to 12.5% below 1990 levels by 2010. The UK is currently on track to exceed this target by 5%. Were Scotland to have this same target itself it would currently be on track to fail by around 5%. The UK has also set itself a voluntary target of reducing emissions to 20% below 1990 levels, but recently announced that this was unlikely to be met.

Scotland must clearly do more if it is to truly make an ‘equitable contribution’ to the UK’s efforts on climate change. By tackling energy efficiency, via this Bill, Scotland can play its part in the UK’s efforts to tackle climate change.

The domestic sector is a significant user of energy and accounts for 30% of total UK energy consumption. As a result this sector is also responsible for a significant proportion of greenhouse gas emissions. Defra’s statistics on carbon dioxide emissions (a key greenhouse gas) show that, in 2002, the UK domestic sector released 40.4 million tonnes of a UK total 166.3 million tonnes. vii

By increasing energy efficiency and thus reducing energy use in the domestic sector this Bill will result in significant reductions in emissions of global warming gases caused by the burning of fossil fuels to produce the energy to heat and light people’s homes.
The existing legislative framework

The Home Energy Conservation Act

The Home Energy Conservation Act 1995 (HECA) came into force in December 1996 and designates local authorities as energy conservation authorities. The legislation placed a duty on local authorities to devise strategies that will improve the energy efficiency of their housing stock over 10-15 years subsequent to the Act coming into force.

Progress must be reported every 2 years, with the second, most recent, report being published in 2003. The report showed:

- “an estimated 4.2% improvement in energy efficiency across the Scottish domestic sector during 1999-2001, compared to only 2.86% in 1997-1999, and an overall improvement of 6.9% since the start of HECA in 1997

- households in Scotland being, on average, £36 better off between 1999-2001 and £61 better off since the start of HECA in 1997 as a result of these improvements in energy efficiency

- an estimated 4.7% reduction in carbon dioxide emissions during 1999-2001, compared to a 3.9% reduction during 1997-1999, and an overall reduction of 8.4% reduction since the start of HECA in 1997

- an estimated 12,475 jobs sustained in installation work and 7,129 jobs sustained elsewhere in the economy as a result of the reported investment in energy efficiency during 1999-2001.”

There are concerns, though, at the effectiveness of HECA in Scotland. A report published by Friends of the Earth Scotland and the Association for the Conservation of Energy claimed that the legislation was “floundering” and “in danger of failing entirely.” The report concluded that more resources and power needed to be made available to local authorities, while strong, mandatory targets should be set both locally and nationally.

The Bill being proposed by Shiona Baird MSP for national domestic energy efficiency targets for Scotland would strengthen and focus the work being carried out by local authorities under HECA and could bring Scotland in line with England and Wales on energy efficiency in residential accommodation as per the Sustainable Energy Act 2003 (see below).

Building Standards Regulations

The latest Building Standards (Scotland) Amendment Regulations 2001 came into force in March 2002. These regulations aim to increase the energy efficiency of new homes by 25%. The Scottish Executive Technical Standards are the standards for compliance with the Regulations. Part J of the Technical Standards is intended to ensure that effective measures for the conservation of fuel and power are incorporated into a building.

This Directive came into force in January 2003 and has a target date for implementation by European Union Member States of January 2006. The framework of the Directive covers four main areas:

- a common methodology for calculating the integrated energy performance of buildings;
- minimum standards on the energy performance of new buildings and existing buildings that are subject to major renovation;
- systems for the energy certification of new and existing buildings and, for public buildings, prominent display of this certification and other relevant information. Certificates must be less than five years old;
- regular inspection of boilers and central air-conditioning systems in buildings and in addition an assessment of heating installations in which the boilers are more than 15 years old.

Home Energy Efficiency Initiatives

There are a number of initiatives that have been set up by the Scottish Executive to tackle energy efficiency and fuel poverty. More of these are needed if we are to see the improvements necessary to meet targets on fuel poverty and climate change emissions. And a focus on some of the more challenging properties is vital.

The Home Energy Efficiency Scheme and Warm Deal

The Home Energy Efficiency Scheme (HEES) ran from 1991 to June 1999, when it was superseded by the Warm Deal. HEES provided grants for energy efficiency to households dependent on benefits. The scheme is reported to have assisted 270,000 households to lower their fuel bills. The Warm Deal now provides a grant of up to £500 to householders, in receipt of certain benefits, to make their homes more energy efficient. Between 1999 and 2004, the Scottish Executive spent £55 million on the Warm Deal, which has insulated 200,000 homes.

The Central Heating Programme

The Central Heating Programme was set up in 2001 with the aim of providing efficient and modern central heating, insulation, safety alarms and energy efficiency advice. The main target for this Programme is Local Authority and Housing Association housing, although it aims to assist pensioners in the private sector as well. Since 2001, the Executive has spent nearly £116 million on the central heating programme and, to date, this has provided central heating systems to nearly 43,000 homes.

The Energy Savings Trust

The Energy Savings Trust (EST) was set up after the United Nations Conference on Environment and Development in Rio de Janeiro in 1992. The EST set up an office in Scotland in 1998 with the aim of maximising the impact of UK programmes in Scotland and to develop distinctive Scottish programmes. EST runs a variety of programmes.
which promote energy efficiency to the domestic sector, local authorities and other social landlords. It also works with suppliers of energy efficiency goods and services. A key EST programme is the Energy Efficiency Advice Centre (EEAC) programme which funds eight Scottish EEACs. In 2003-04 the Executive provided funding of £175,000 to the EST to support domestic demonstration, pilot or research projects which address energy efficiency issues. The aim of this fund is to enable the EST to develop ways of extending energy efficiency into new areas and produce approaches which address issues of particular importance to Scotland. For example, in the private rented sector assistance has been provided to 224 households to implement energy efficiency measures, directly benefiting an estimated 500 customers to date.

**Energy Commitments**

Since April 2002, utility companies have been put under an obligation to encourage or assist domestic customers to take up energy efficiency measures under the ‘Energy Efficiency Commitment’. This is monitored by the industry regulator. Although reserved to Westminster, this scheme clearly has an impact in Scotland.

**A UK-wide perspective on energy efficiency targets**

In 2002, in advance of the UK Government’s Energy White Paper, the Prime Minister’s Strategy Unit at Downing Street produced an ‘Energy Review’. In that review, it recommended the following:

“1. Energy efficiency should be prioritised at the highest levels of government and a new aspirational target set for improvements in domestic energy efficiency. Ministers should extol the prospects, and throughout the public and private sectors investors should review the possibilities;

2. Innovation, including in energy saving. If the UK can focus on technical challenges – like the challenge of improving efficiency in older homes – then we may make some real breakthroughs. These are potentially major new opportunities for British business.”

The Energy Review also made the following statement:

“Step changes in energy efficiency and vehicle efficiency are needed, with new targets for both. In the domestic sector, the Government should target a 20% improvement in energy efficiency by 2010 and a further 20% in the following decade.”

Energy efficiency targets have recently been established in the other parts of the UK. The Sustainable Energy Act 2003 required both the UK Secretary of State in England and the National Assembly for Wales Government to “set an energy efficiency aim for residential accommodation.” This was recently achieved in England through the Housing Bill, which received Royal Assent in November 2004. The Housing Act 2004 contains a target for domestic energy efficiency that requires that “the general level of energy efficiency of residential accommodation in England be increased by at least 20 per cent compared with the general level of such energy efficiency in 2000.”

The Department of Trade, Enterprise and Investment in the Northern Ireland Government also set a target in its Energy Strategic Framework for Northern Ireland published in June 2004. The target requires that from 2007 overall consumption of electricity within Northern Ireland is reduced by 1% per annum until 2012.
Possible financial implications of this Bill

Although this Bill will not dictate how much money should be spent – since that will be a decision for Ministers – it may have financial implications both in terms of Ministerial, Civil Service and Parliamentary time. It should be noted, however, that in investing in energy efficiency substantial financial savings can be made, to Government, Local Authorities, business and individuals. The Energy Saving Trust, for example, states that nearly £5 billion is wasted on energy in the UK every year. This is enough to give every man, woman and child £84 a year. xiv

Responding to this consultation

The purpose of this consultation is to get as much feedback as possible from interested organisations and members of the public to assist in the framing of the Bill.

The following questions may help you formulate your response:

Do you feel that the use of mandatory targets for improved energy efficiency is an appropriate way to tackle both fuel poverty and climate change in Scotland?

If not, then what other methods might be more appropriate?

If yes, what target level of energy efficiency improvement should be set and over what time frame?

What do you see as the main strengths and weaknesses of the Bill, as proposed?

The deadline for responses to this consultation is: 21st May, 2005.

Ways to respond:

By mail to: Liz Murray, Room MG11, Scottish Parliament, Holyrood, Edinburgh EH99 1SP.

By email to: liz.murray@scottish.parliament.uk

By fax to: 0131 348 6375, marked ‘for the attention of Liz Murray’.  

Further copies of this consultation paper can be downloaded from: www.shionabairdmsp.org or ordered by email from the address above.

Shiona Baird MSP may wish to publish your response to this consultation document. Unless you state otherwise, we will assume that there is no objection to your response being made public. If you do not want your views to be made public, or if you prefer to remain anonymous, please specify this in your response and we will respect your wishes. We will still count confidential responses in any statistical analysis and your views will be taken into account in the same way as for non-confidential responses.

Shiona Baird MSP would welcome as many contributions to the consultation as possible. Please pass this consultation paper to any other individuals or organisations that you think might be interested.
References


ii  Ibid

iii  National Energy Action. Excess winter mortality is calculated by comparing the total number of deaths during the winter period (December – March) with the average number of deaths in the preceding and following four-month periods.

iv  http://www.nea.org.uk/Policy_&_Research/Fuel_poverty_facts/Excess_winter_mortality

v  Scottish Executive and Communities Scotland: Scottish House Condition Survey 2002.

vi  Ibid

vii  Defra: Carbon dioxide emissions by end user 1970-2002. The analysis by ‘end user’ allocates emissions from power stations to those using the electricity generated.


xi  Performance and Innovation Unit, 10 Downing St: Energy Review. 2002

xii  Ibid


xiv  Energy Saving Trust website. www.est.org.uk/index.cfm