

The Energy Efficiency and Micro-Generation Bill Proposal



Foreword

When the Scottish Parliament's Environment & Rural Development Committee published its report into climate change earlier this year we expressed concern that sometimes relatively obvious and cheap energy efficiency measures have struggled to achieve a high priority for individuals and businesses.

To date the main focus on renewable technology in the Scottish Parliament has been on large scale projects, overlooking the opportunities that could come from promoting renewables on a much smaller scale. That's why in June 2005 I agreed to work with my UK colleague Mark Lazarowicz MP and others to make sure that Scotland does not miss out on the potential that could come from promoting micro-generation technologies.

What I want to achieve from a member's bill in the Scottish Parliament is to encourage the use of more environmentally sustainable sources of energy to heat our homes and to run our businesses.

Recent increases in energy prices have given this added impetus. The era of cheap domestic power is now clearly over. Energywatch reports that gas prices have gone up by 30 per cent, and electricity prices have risen by 27 per cent in the past two years threatening to offset various Scottish Executive and UK Government initiatives such as the Warm Deal and the Winter Fuel Payment. We know from the Scottish House Condition Survey that every five per cent increase in fuel costs drags 30,000 Scottish households back into fuel poverty. Barnardo's estimates that 46,000 children live in fuel poverty. That must end.

Technological developments these days make it possible for individual households and small businesses to generate their own electricity and heat by the use of small-scale renewable energy and highly efficient central heating boilers. Known as micro-generation these technologies could play a major role in delivering the Scottish Executive's energy objectives.

By incorporating micro-generation into both existing and new houses then householders could also benefit from cheaper fuel bills, thus helping the Executive meet its fuel poverty objectives. Micro-generation could be making a major contribution to energy supplies by 2020, and by reducing carbon emissions, contributing significantly to Scotland's climate change objectives.

There are some superb initiatives in or near my own constituency, from the installation of solar panels at Napier University, and sheltered housing at Saughton Mains, to the use of energy from underground in Cramond. But I remain frustrated at the lack of progress in general. These new technologies, which are proven and available now, need to move from only being used in a few demonstration projects to being fitted as standard, and incorporated into all new developments.

As one of the Co-Convenors of the Scottish Parliament's Renewable Energy Group I have been involved in discussions with Local Authorities, Housing Associations and a range of renewable energy companies about how we make small-scale renewables easier to incorporate into our buildings and everyday lifestyles. The Executive could play a key role here by setting targets and ensuring that its own investment and procurement programmes make the most of the opportunities offered by small scale renewables, and other low carbon technologies.

From talking to Housing Associations, environmental groups and people in the construction industry I know that the reason our energy efficiency standards have improved is because the Executive has set new standards. Yet when it comes to renewable energy proposals these are seen as an optional extra, often considered at the early stage of a project but rarely making it to the final schemes that get built. The reality is that they are still perceived as novel and bringing a cost premium thereby making them a brave choice for



either individuals or organisations. I believe we need to require them as standard in order to bring down costs and drive a market for installations.

Here is a win-win opportunity for the environment, householders and Scottish industry, but only if we act.

An important but not insurmountable barrier is the lack of information for householders about these new technologies and the lack of trained staff to install and maintain them. Amending our building regulations will create a larger market and bring down costs. Local authorities, particularly in England have begun to promote micro-generation in their planning and housing systems. This paper will look at some of these developments and particularly the lessons we can learn from the approach taken by the Greater London Authority. I believe it's time we acted too.

The purpose of my consultation is to seek policy feedback from interested organisations and members of the public to assist in the thinking behind my proposal and the eventual framing of a Bill. I very much look forward to reading your response.



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Introduction

It is now widely recognised that climate change is the single most important long-term threat facing our planet. The UK Government has set itself a target to reduce emissions of carbon dioxide (CO₂) – the main pollutant responsible for climate change – by 20% by 2010, compared with 1990 levels.

Many of the policy levers which could be used to implement reductions in CO₂ emissions are the responsibility of the Scottish Executive. The Scottish Parliament's Environment and Rural Development Committee recently reported that the current rate of progress in reducing carbon emissions in Scotland – a 5.7% fall between 1990 and 2002 – is an inadequate contribution to the UK's targets. Clearly, the Executive needs to do more.

The UK Government has also accepted that we need to reduce our carbon dioxide emissions by 60% by 2050. This may seem a long way off, but many buildings constructed today will hopefully still be standing mid way through this century, so we need to start designing buildings now more appropriate for a world with much smaller carbon emissions.

Small-scale, renewable, low carbon source, energy technologies (also known as micro-generation or micro-power) could play a major role in delivering our climate change objectives in Scotland. These technologies include solar panels which can heat water or generate electricity; small wind turbines which could be fitted to individual buildings; central heating boilers which use waste heat to generate electricity; heat pumps, which in a similar way to a refrigerator, extract useful heat from the ground or the air; and small-scale hydro-power turbines.

The Scottish Executive has already been funding demonstration projects through the Scottish Community and Household Renewables Initiative (SCHRI) and is committed to providing additional funding for the next three years.

But these technologies are now at the stage where they could begin to make a major contribution to the Executive's climate change objectives if enabled to make the leap from demonstration projects to commercial viability. However much of the hardware is expensive, being manufactured only in small quantities, and the market needs to be kick started so volume of production can bring down prices.

As a society we already accept that, in order to reduce heat loss and keep occupants warm and dry at a reasonable cost, Building Regulations set minimum standards for incorporation of insulation during construction of homes and buildings. As well as reducing fuel poverty this policy conveys other benefits given that all energy generation has an environmental impact. Although there is much room for improvement on insulation standards why should we not also require new buildings to generate a certain amount of their own energy requirements?

Now that the technology is available to achieve just that, with a much lower environmental impact than conventional and centralised power stations, such a policy would make a major contribution to meeting the Scottish Executive's objectives. That is a key objective of my Bill proposal.

What is being proposed

The purpose of my Member's Bill Proposal is to promote energy savings by requiring the Scottish Executive to support the means of small scale renewable and low carbon energy production both in new and existing households and business premises by adoption of regulatory, administrative, and financial measures.

These measures could include:

- amendment of building standards (to include micro-generation as a "permitted development" and provide a review of standards to ensure more effective implementation and monitoring of energy efficiency measures through means such as sellers surveys and/or validated energy certificates).

- setting of national targets for take up of micro-power and annual reporting of progress to meeting such targets;
- encouragement of localised activity such as target setting by local authorities; and
- provision of administrative and financial incentives (such as a one off flat rate reduction in council tax initially set at a maximum of £100 for houses that incorporate certificated energy efficiency/micro-generation measures, and a reduction on Business Rates for those companies which incorporate certified energy efficiency/micro-generation measures into their buildings).

Please see the section on **Measures** further on in the paper for elaboration on the key aspects outlined above.

Climate Change Targets - the need for a Bill

On 30th June 2005, the First Minister told the Scottish Parliament that:

"The Executive recognises that climate change is the single most important long-term threat that faces our planet ... we will establish climate change targets in areas of devolved responsibility. We will do that in our strategy, which will be published later this year." [1]

The Scottish Parliament's Environment and Rural Development (ERD) Committee recently reported that the current rate of progress in reducing carbon emissions in Scotland – a 5.7% fall between 1990 and 2002 – is inadequate to meet both short and long-term targets. [2]

Evidently the Executive's climate change strategy will need to propose additional measures if we are to meet our climate change objectives. What is being proposed in this consultation paper to support micro-generation could provide a major contribution to reaching these objectives.

The ERD Committee recommended that the Executive's planned Scottish energy efficiency strategy (expected to be published in Spring 2006) should include targets for the development of small-scale renewable energy projects, (which together with heat pumps and gas central heating boilers make up what is called micro-generation) and that public procurement is used to drive investment in such projects [3].

The UK Government's Draft Micro-generation Strategy even mentioned an expectation that the Scottish energy efficiency strategy might include measures to promote micro-generation [4]. Yet the Scottish Executive's response to the ERD Committee says that its energy efficiency strategy is not considering small-scale renewables [5].

The Executive's Scottish Community and Household Renewables Initiative (SCHRI) provides some very welcome funding for a small number of micro-generation schemes. Deputy First Minister, Nicol Stephen, announced on 21st September 2005 a further £250,000 funding for this financial year. The Minister also said he would look carefully at increasing the £2.2 million per year allocated to the budget for the next two years. [6]

However, this level of funding will only ever be enough to provide funding for a few demonstration schemes. It will not be sufficient to increase demand and hence production of the equipment which would reduce costs and in turn make the technology available to more than a few enthusiasts. Clearly the Executive must do much more if micro-generation is to make the contribution to our climate change objectives it is capable of making.

Background

Possibilities of Micro-generation

As stated earlier, micro-generation (or micro-power) is the production of heat and/or electricity on a small-scale from a low carbon source, by individual householders, small groups of householders or small businesses.

Technological developments now make it possible for micro-generation to play a major role in delivering climate change and other energy objectives. Micro-CHP boilers, for example, are now small enough to be a replacement for a conventional domestic boiler; wind turbines are now available in a size which makes them practical for homes and offices; solar photovoltaic cells can be manufactured as roof tiles and used on new buildings or when a roof needs to be replaced to generate electricity [7]; roof-mounted solar water heating is available which doesn't need connection to mains electricity [8].

UK Policy Framework

The need for new policies and strategies to take advantage of these technological developments has already been recognised by the UK Government and the Scottish Executive. The Sustainable Energy Policy Network (SEPN) – the network of Department's and devolved administrations charged with delivering the Energy White Paper [9] – published a consultation document on Micro-generation Strategy in June 2005 [10].

The Strategy is a requirement of Section 82 of the UK Energy Act 2004 [11] encompassing areas that are devolved matters such as sustainable development, planning, housing, and building regulations.

SEPN says its vision for 2020 is for much more diverse local energy generation with fuller connection to the distribution network. It wants to see more low carbon small-scale generating technology supplying individual customers and buildings, and seeks to create the right competitive environment for these technologies to fulfil their potential.

Industry response to SEPN

The Micropower Council, which represents the micro-generation industry, however, does not believe SEPN's Micro-generation strategy will create the right environment for these technologies to fulfil their potential. The Council described the Strategy as a missed opportunity to inspire confidence in the industry [12].

The Council's main concern is that without quantified targets the necessary investment in the sector will not take place. The industry wishes to be confident there is going to be significant consumer demand before it will make the necessary investment. Without investment, costs cannot come down and micro-generation cannot be available to all.

Need for targets

Dave Sowden, Chief Executive of the Micropower Council, says a statutory target is needed for micro-generation. *"That will give consumers, local authorities, companies, banks, boards and shareholders confidence in the level of Government commitment that is necessary to invest."*

According to the Association for the Conservation of Energy (ACE) the insertion of a statutory target for domestic energy efficiency into the 2004 UK Housing Act has meant that companies are now planning long-term investment in products, plant, and personnel. Abandoned plans have been reinstated and manufacturers and installers are now able to invest, confident that there will definitely be the demand for their products and services [13]. A similar level of confidence is needed by the micro-generation industry.

David Gordon, Chief Executive of Glasgow-based Windsave says: *"Micro wind excites us enormously – but we have to convince our banks of a long term market. A government target is an essential pre-requisite to greater investment and all the resulting benefits – including mass production and lower prices and less harmful emissions."*

London and Westminster

Lessons from the GLA

The Greater London Authority could offer a useful model for Scotland to consider in thinking about how to deliver the transformation in our day-to-day practice necessary to tackle carbon emissions.

The Mayor's Energy Strategy for London [14] was developed within the national context set out in the government's Energy White Paper, published in February 2003. This looked to increased energy efficiency and use of renewable energy as two of the main mechanisms by which government energy policy could be delivered.

The Mayor's Strategy aims to improve London's environment; reduce the capital's carbon emissions; tackle fuel poverty and promote economic development. It sets out a plan for London so that by 2050 it will have contributed its share of the required 60% reduction in carbon dioxide emissions. To deliver this vision, the Mayor sets out a series of key policies including the establishment of renewable energy targets. Thus, by 2010 London aims to generate at least:

- 665GWh of electricity; and
- 280GWh of heat, from up to 40,000 renewable energy schemes by 2010.

This would generate enough electrical power for the equivalent of more than 100,000 homes, and would heat more than 10,000 homes. To meet this target, London should aim to install at least:

- 7,000 domestic solar photovoltaic installations, converting daylight into electricity;
- 250 photovoltaic applications on commercial and public buildings;
- six large wind turbines;
- 500 small wind generators associated with public or private sector buildings;
- 25,000 domestic solar water heating schemes;
- 2,000 solar water heating schemes associated with swimming pools; and
- more energy recovery facilities and biomass-fuelled combined heat and power plants.

These capacities should then be at least tripled by 2020.

The Mayor will use his planning powers to help achieve these targets. He will require major developments to incorporate energy efficient measures and show how a proportion of the site's energy needs, where feasible, would be generated from renewables. He expects major developments to generate at least ten per cent of their energy needs from renewable sources.

The Mayor also wants London's to be a showcase for sustainable commercial and public sector buildings. Boroughs are also being encouraged to introduce similar policies and to establish at least one showcase renewable energy project in their area and one zero carbon development. The Mayor will also encourage the development of energy service companies. The Strategy also sets tougher fuel poverty targets than the Government to reflect the high cost of living in London.

The Energy Strategy, by proposing the establishment of a partnership of organisations to oversee its development and implementation, also aims to maximise the potential economic benefits from moving to a low carbon economy. For example the issues of training and the skills gap are explored in the GLA report 'Skills and Jobs from Renewable Energy, Policies and Targets' [15].

Practical advice and guidance has been developed for planners, developers and consultants to ensure that new buildings and developments meet the London Mayor's targets on integrating renewable energy into new developments. A similar approach has been taken at the local level by Merton Borough Council [16].

Raising awareness amongst householders and businesses has also been identified by the GLA as important and key findings of survey work carried out in 2003 showed that:

1. 84 per cent of stakeholders consider it important that local authorities use planning powers to secure renewable energy in new buildings.
2. 59 per cent of stakeholders consider commercial house builders as an important group to help meet renewable targets.
3. Three quarters of Londoners said they would be in favour of solar panels in their local area.
4. Nearly 50 per cent said they would pay more for green electricity. [17]

At Westminster

Mark Lazarowicz MP [18] was successful in the annual ballot for Private Members' Bills at Westminster and his Bill, which received its second reading on 11th November 2005, aims to tackle climate change by:

- requiring firm targets and new policies to promote micro-generation
- establishing a 'renewable heat obligation'
- requiring government reports to parliament on these issues and on greenhouse gas emissions

His Climate Change and Sustainable Energy Bill additionally seeks to ensure that excess energy produced by micro-generation can be sold for a fair price to large energy suppliers (ie, the utility companies). This would provide extra income for householders thus shortening the pay back period on their initial investment.

Barriers to take up

There are significant barriers currently preventing widespread take-up of micro-generation, thus preventing these technologies making their contribution to the Scottish Executive's policy goals.

The Micro-generation Strategy recognises the following barriers to the increased uptake of micro-generation:

1. Cost constraints – as new products with low demand, costs to consumers are currently quite high.
2. Information constraints – a lack of information about products or any assurances about the quality of the product.
3. Technical barriers – a lack of suitable meters [19].

The UK Government has been working closely with the industry and the regulator, Ofgem, for the last three years under the auspices of the Distributed Generation Coordinating Group. Through this and other work, a significant consensus exists amongst experts in the sector that the following measures are needed to remove regulatory barriers, provide financial incentives and stimulate investment:

- a. National and local targets for the uptake of micro-generation.
- b. The removal of substantial bureaucracy in the system for rewarding renewable electricity generation.
- c. A fair system to reward customers who export power onto the grid.
- d. Further fiscal measures to provide incentives for customers.

- e. The removal of the requirement for planning permission for some micro-generation technology.
- f. The inclusion in the Building Regulations of a requirement for micro-generation in future new build.
- g. Fulfilment of the Energy White Paper's commitment to a ten-year funding programme for Photovoltaic electricity generation. [20].

This Member's Bill Proposal aims to remove those barriers recognised by the Micro-generation Strategy and within the remit of the Scottish Parliament.

Case for transforming the market

The Energy Saving Trust (EST) is the leading government funded organisation promoting mass market sustainable energy solutions across the UK, including both domestic energy efficiency and mass market renewable energy.

EST points to the transformation of the market, mainly by use of subsidies, for white goods and central heating boilers as examples of what can be achieved. In 1999, for example, only six per cent of washing machines sold were A-rated – this year their market share is 85 per cent. Similarly, the market share of gas condensing boilers is now over 80 per cent – up from 24 per cent in 2004.

The impact of market transformation activities on micro-generation at a mass-market scale could be equally as powerful. EST has said it would like to see the government's micro-generation strategy adopting clear targets together with an indication of the level of financial support that will be available for the programme [21].

In addition EST recommends that the government's micro-generation strategy should:

1. Demonstrate government leadership on climate change.
2. Address the remaining barriers preventing the mass-market transformation of micro-generation.
3. Increase focus on mass-market renewables.
4. Stimulate the uptake of micro-Combined Heat and Power (micro-CHP).
5. Involve new market players – consumers and communities.
6. Help address fuel poverty.

Measures

Building regulations

In a similar way to the London Mayor's Energy Strategy, this Member's Bill Proposal would require the Scottish Executive to use Building Regulations to promote micro-generation by requiring installation in all new developments.

In a briefing paper on Developing Small Scale Renewables in Scotland the Scottish Parliament's Cross Party Renewable Energy Group identified cost as an important issue to be addressed if the potential of small-scale renewables were to be met:

"The key to successfully building a market for small-scale [renewables] is to ensure that long term support signals are in place, and that measures are targeted to ensuring larger scale installation programmes that will lead to volume orders and falling costs, ensuring that over time, the unit installation cost will go down, thus ensuring the technology is competitive on the open market." [22]

Thus the increase in demand for equipment generated by the requirement to include it in new developments will enable mass production and reduce costs. This will, in turn, trigger more demand from existing building.

Planning

As a general rule, solar panels and photovoltaic cells can already be installed on the roofs of individual houses providing the panels don't project significantly above the roof. This Bill proposal would make it easier for householders to install solar and other technologies by removing the need and expense of applying for planning permission provided certain conditions are met.

The Bill would grant permitted development status to specified micro-generation technologies which have been assessed for noise and visual intrusion. Thus, planning permission would not be needed, so saving householders £265. As well as the financial saving this would encourage purchases by consumers by reducing the 'hassle factor' and providing 'certainty' for consumers.

Planning Guidance

In England and Wales local authorities may now set targets for on-site renewable energy in residential, commercial or industrial projects. Local authorities and developers are also encouraged to *"consider the opportunity for incorporating renewable energy projects in all new developments ... Local planning authorities should specifically encourage such schemes through positively expressed policies in local development documents."* [23]

Planning Guidance can play a very significant role in promoting positive planning measures. Scottish Planning Guidance (NPPG 6 [24] and PAN 45 [25]) could be updated to give clear guidance so that local authorities are required to deal with planning for micro-generation separately in their structure and local plans. If the Scottish Executive made the necessary changes to Planning Guidance it would provide a clear signal to local authorities and developers.

This Bill proposal will require local authorities to consider the role that micro-generation targets could deliver in achieving sustainable energy and to set such targets as they think appropriate.

With many local authorities in Scotland planning new schools over the next few years, there is an opportunity to follow the example set by Dundee City Council's Morgan School, which was recently awarded a £116,000 grant under the DTI's Major Photovoltaic Demonstration Programme. Napier University in Edinburgh has also installed the largest PV installation in Scotland, and Edinburgh University will soon be opening a larger installation at Kings Buildings.

The Sustainable Communities Plan "Sustainable Communities: Building for the Future" outlines the Office of the Deputy Prime Minister's approach to energy efficiency in the 4 areas for housing growth identified within the Plan for England – the Thames Gateway, Milton Keynes/South Midlands, London-Stanstead-Cambridge-Peterborough and Ashford. Total housing built in these growth areas to 2016 will be 476,355 homes [26].

Similar large growth areas exist in Scotland, for example Leith Docks and the Edinburgh Waterfront, and the opportunity to include micro-generation in these developments should not be missed.

Benefits of Micro-generation

Increased deployment of micro-generation technologies would have a beneficial impact for the environment, for consumers, and on several of the Executive's related policy goals:

1. Reducing carbon emissions – the DTI's Renewables Innovation Review suggests that buildings (domestic, commercial and industrial) contribute around 47% of carbon dioxide emissions in the UK [27]. Micro-generation has the potential to reduce these emissions by providing low or zero carbon sources of electricity and heat to houses and small commercial premises throughout the country. It therefore has an enormous potential to assist in meeting the Executive's climate change targets.

2. By encouraging the installation of micro-generation by public housing providers, these technologies could play an important role in **tackling fuel poverty** by delivering affordable heat and electricity. Domestic fuel prices are on the rise again after a period of price reductions. Every time bills increase by 5% 30,000 people are dragged back into fuel poverty [28], so without action fuel poverty is set to increase again. The government's fuel poverty strategy itself has recognised the virtue of micro-CHP as regards 'hard to heat' homes. Domestic heat pumps can be a viable alternative in areas where there is no mains gas, such as northern Scotland.
3. In terms of **wider benefits for the Scottish economy**, developing the market for micro-generation technologies will help industry to grow and become better placed to compete abroad in the rapidly growing market for these technologies. There are already examples of Scottish companies taking the lead in developing innovative technologies (e.g. micro-wind turbines for household use) and a strong home market could help the companies developing these products to prosper in the UK and abroad.
4. **Jobs** – Inverness College will shortly offer a course for heating engineers and plumbers to achieve the necessary standards and skills required to apply for the accreditation. This will enable them to install renewables technologies under the Scottish Community and Householder Renewables Initiative (SCHRI). Clearly if the role of micro-generation is to be expanding there will be a need for more trained installers.
5. Micro-generation would **engage consumers**. Climate change can seem such an enormous issue that there is little that individuals can do about it. Micro-generation can enable people everywhere to actually 'get involved' in helping with this major international problem. When consumers begin to take more of an interest in their energy consumption it is often found that further energy savings are made.
6. The development of micro-generation would enable the UK to use this technology to **assist developing countries** by providing a cheap, versatile and environmentally friendly way of dealing with both poverty and with climate change. This is illustrated by a project being run by Scottish and Southern in conjunction with the Midlothian company, Renewable Devices. This collaboration has seen the development of a mobile birthing room which has been donated to the government of Malawi [29].
7. **Protecting security and continuity of supply** especially by taking pressure from the national grid at peak hours. If half the homes in Britain installed 1kW micro CHP or micro wind turbines this would provide as much winter generating capacity as all of our nuclear power stations put together [30].
8. The Bill requires the Scottish Executive to set targets for micro-generation. Provided they are sufficiently ambitious such targets will create the **business confidence** required to **stimulate long-term investment**. This will stimulate demand and bring prices down.

Funding picture

In England and Wales a new funding scheme called the Low Carbon Buildings Programme will supersede the current DTI grant schemes for micro-generation technologies (which are due to end in March 2006). The new programme will continue to support micro-generation but will provide a more holistic approach to reducing carbon emissions by also providing practical advice on energy efficiency measures.

In Scotland, responsibility for the promotion of renewable energy rests with the Scottish Executive. The Executive launched the Scottish Community and Householder Renewables Initiative (SCHRI) at the end of 2002, backed by £2.2 million per annum. For 2005/06 a further £250,000 has been added and the Deputy First Minister has said he will look at increasing the allocation for 2006/07 and 2007/08.

The SCHRI offers an advisory service and grant support scheme to non-profit community organisations and individual householders for installing a range of micro-generation technologies. SCHRI grants can cover 100% of the capital costs for community projects up to a maximum of £100,000, and 30% of the capital costs for an individual household up to £4,000. Solar photovoltaic cells (PV), which generate electricity, have not

been supported by SCHRI because funding is available from the DTI. This will continue to be the case under the DTI's new Low Carbon Building Programme [31].

SCHRI does not currently offer funding for new gas central heating boilers which also generate electricity (known as micro-CHP). Although these boilers are not a renewable technology, they are an extremely efficient way of using gas, and should therefore be considered eligible for funding.

This Member's Bill Proposal aims to make the inclusion of micro-generation in new buildings a statutory requirement, which would not be eligible for funding. It is envisaged, however, that SCHRI would continue to fund installations in existing buildings for at least a few more years until the cost of installation has fallen for the market to be self-sustaining.

The Energy Savings Trust has proposed the introduction of a reduction in Council Tax or its replacement for houses that incorporate certificated energy efficiency or micro-generation measures [32]. The Member's Bill being proposed would introduce such a reduction for housing as well as reductions on Business Tax for businesses which incorporate certificated energy efficiency or micro generation measures into their commercial premises.

Financial Implications of proposal

The intention of the proposed Bill is to stimulate the micro-generation industry to reduce prices as the rate of installation increases. This would not dictate how much money should be spent by the Executive, although increased funding for SCHRI over the next few years by the Executive would of course help the industry reduce prices more quickly.

The proposed Bill would have financial implications in terms of increased capital costs for new buildings and the cost of building refurbishments. However, as with other investments in energy efficiency, investments in micro-generation will significantly reduce the operating costs of the buildings where systems have been installed.

European dimension

In 2006 the European Energy Performance of Buildings Directive will come into force. The directive's main requirement is that when buildings are constructed, sold or rented out, an energy performance certificate must be made available to the owner or by the owner to the prospective buyer or tenant.

For the past six years, every time a new home has been constructed, it has been mandatory for the rating (called a Standard Assessment Procedure, or SAP) not only to be provided for prospective purchasers, but also well-publicised. Nonetheless, a study published last year by de Montfort University showed that 95% of house-builders were failing to comply, thus effectively breaking existing law [33].

The new directive will go much further. It will cover refurbishment and homes which are sold, which will require an energy certificate before the sale can be legal. Plus, every time a tenant – whether in the public or private sector – takes up a new lease, a current energy certificate must be proffered.

Past experience from the building industry has not been good. There is evidence of widespread breaches of even the minimum building standards. An ODPM study of homes built under the latest set of energy standards has revealed that 2 out of 3 new homes are built below minimum energy standards [34].

Implementation of the directive will be a more complex administrative task than the current, rather ineffective, monitoring of Building Regulations. This Bill will ensure that where a householder or business applies to benefit from reductions in Council Tax or Business Rates that the energy efficiency performance of the building and/or micro-generation is professionally validated.

Conclusion

Climate change, caused by emissions of greenhouse gases, particularly carbon dioxide, is the single most important long-term threat to the planet. This proposed Bill draws on developing planning practice in some progressive local authorities with the aim of providing the Scottish Executive with additional tools for reducing carbon emissions from buildings in order to counter the threat to our climate. It aims to promote the installation of emerging small-scale renewable and low carbon energy technologies in new and existing buildings by amending building standards, setting national targets and providing financial incentives. It will provide more opportunities to tackle fuel poverty in Scotland by reducing people's energy bills.

I would like to thank you for taking the time to read this consultation document and I look forward to hearing your views so that the final Bill which I promote gets an appropriate balance between regulation and incentives and helps to move Scotland towards a low carbon, yet prosperous, economy.

Questions

1. What do you consider are the benefits of the legislative approach in promoting small scale renewable energy production in both existing buildings and new developments?
2. What disadvantages, if any, do you think there might be with this approach?
3. What are your views on the following specific measures as outlined in the paper?
 - i amendment of building standards;
 - ii setting targets and annual reporting of progress;
 - iii encouragement of local authority measures; and
 - iv administrative and financial incentives.
4. Please elaborate on any views you might have on any existing small scale renewable energy policy initiatives, north and south of the border, and how these might relate to what is being proposed.
5. What in your view would be the financial costs, if any, of what is being proposed?
6. Do you consider there to be any equalities issues raised by what is being proposed? If yes, please elaborate.
7. Please feel free to raise any relevant issues you consider have not have been covered in this consultation.

Responding to this consultation

The deadline for responses to this consultation is: Friday 17th March 2006.

You can respond by mail to: Ross Gilligan, Room 4.06, Scottish Parliament, Holyrood, Edinburgh EH99 1SP

By email to: ross.gilligan@scottish.parliament.uk

By fax to: 0131 348 5974, marked 'for the attention of Ross Gilligan'

Further copies of this consultation paper can be ordered by email from the address above.

Under the Code of Practice on open government, responses will be made available to the public, unless respondents ask for their comments to remain confidential.

To help inform debate on the matters covered by this paper and in the interests of openness, the responses submitted on this consultation document will be made public. It will be assumed that responses can be made public unless the respondent indicates that his or her response is confidential.

Confidential responses will nevertheless be included in any summary or statistical analysis, which does not identify individual responses.

References

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Photo on page 3: Sarah Boyack with a Swift Wind Turbine at Scottish Environment Week 2005