

# Our Energy Challenge - Securing Clean, Affordable Energy for the Long-Term

## Consultation Response



wise group

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## Introduction

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**The Wise Group** is one of the UK's leading employment and regeneration agencies, and operates throughout Scotland and the North East of England. We are a not-for-profit organisation, whose central mission is to help those outside of, or disadvantaged within, the labour market to change their lives through improving their labour market position and to contribute to the wider regeneration and sustainable development of the communities in which we work.

The Wise Group, through its Sustainability Advice Centre, delivers a number of sustainable energy projects and has operated the **Strathclyde and Central Energy Efficiency Advice Centre** since 1994. We deliver a comprehensive sustainable energy advice service to residents across 12 Local Authorities alongside a range of other services, which play a pivotal role in reducing energy demand and include:

**Sustainable energy advice** - advice to domestic clients on areas including energy efficiency, renewables and some limited sustainable transport advice

**Sustainability education** - sustainable energy and recycling education in primary, secondary and tertiary education establishments

**Strategic support for Registered Social Landlords** - Local Energy Support Programme provides support on sustainable energy matters and helps to instigate projects that reduce energy demand.

**The Scottish Community and Householder Renewables Initiative** - locally delivered 'one-stop shop' offering grants, advice and project support to assist the development of new community and household renewable schemes in Scotland.

**EST Business Advisors** - marketing the Scottish Executive's resource efficiency programmes, focusing on energy efficiency and waste minimisation and aimed at the business sector and in particular on Small and Medium Enterprises (SMEs).

**Loan and grant scheme management** - commercial and domestic interest-free loans to encourage take up of energy efficient technology.

In addition the Wise Group has, for the past 23 years, worked with Local Authorities and Housing Associations to provide a range of other services such as insulating and draught-proofing domestic and non-domestic buildings. Throughout the 1990s we worked with Glasgow City Council to convert cold and inadequately heated post-war tenements and more recently we have taken on delivery of the Scottish Executive's Central Heating and Warm Deal programmes.

Where possible all of these functions were and are made available as training and work experience placements for long term unemployed people.

Our role both as a key provider of sustainable energy advice and support and as an agency that delivers individual support to the most disadvantaged unemployed individuals in Scotland (those most likely to also suffer from fuel poverty) puts us in a strong position to offer comment on certain areas of this consultation document. It should be noted that as our energy advice and related operations are based primarily in Scotland much of our response will be written from a Scottish perspective.

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## Response to Consultation Questions

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1. What more could the government do on the demand or supply side for energy to ensure that the UK's long-term goal of reducing energy emissions is met?

There are a number of actions that could be taken by the government that would impact on both supply and demand and thus help to meet the UK's emissions goals.

Central to any strategy must be the continued and increased promotion of energy efficiency activity, which is critical not only to the reduction of carbon emissions but also to the lasting reduction of fuel poverty for some of the UK's most disadvantaged households.

We believe that the most important action that government can take is the creation of a **clear policy framework** backed up with clear and enforced targets with regards to:

- The promotion of alternative and localised energy sources.
- The promotion of energy efficiency activity.

It is critical that the government sets clear and firm targets for energy efficiency and renewable energy. As argued by IPPR we "need a long term stable policy environment to secure private investment in renewable energy and energy efficiency projects"<sup>1</sup>.

Energy must be a key area of '**joined up government**'; true progress cannot be made without a coordinated approach at a governmental and local level. At a governmental level the reduction of carbon emissions should be made a cross-portfolio priority: energy is an area that impacts upon and is affected by decision making across all areas of government.

The promotion of both improved energy efficiency and of renewable energies requires a combination of **regulation, incentives and education** targeted at individuals, communities, industry and business and the public sector.

### Regulation

#### Building Standards

There is a need for a comprehensive improvement in the standards of building regulations, which cover current, as well as new, stock. Current standards are not at a level appropriate to ensure the levels of energy efficiency needed to have a meaningful impact on carbon emissions or on fuel poverty.

In the UK the domestic sector accounts for over 30% of all energy consumed - if all homes were efficiently insulated with effective heat controls and up to date

appliances this could be reduced by up to a half. A house built to the current UK building regulations will use on average 65% more energy than a home built to Swedish regulations, demonstrating that there is immense potential for improved energy efficiency within British homes. In addition to this significant potential exists for improvements to commercial, industrial and community owned property.

We believe that the following actions should be taken:

- Building regulations should incorporate instructions for building developers on revised standards to encourage widespread use of passive solar, and other energy saving features, in building design.
- Building Regulations should promote energy efficiency by requiring considerations such as use of natural light; use of grouped building forms (to minimise external wall surface extent and exposure; or the promotion of sustainable urban drainage systems (including rainwater and waste water collection and recycling) as has been successfully undertaken in Milton Keynes.
- Planning regulations should be revised to make permissions conditional on the incorporation of energy efficient approaches.
- Existing boiler regulations in England should be extended to Scotland
- Legislation should be introduced that requires all domestic boilers over 15 years old to be replaced by A rated condensing combination boilers
- In Scotland loft insulation levels should be increased to 300mm, in particular Communities Scotland should be tasked to increase the loft insulation specification in the Scottish Housing Quality Standard from 100mm to 300mm.
- Housing Associations that are involved in refurbishment and/or new build should be required to undertake a 25-year life-cycle comparison of renewable technologies such as biomass heating and heat pumps against gas, oil, LPG, and electricity, before placing contracts. In addition the practice of reducing Housing Action Grants (HAG) when Housing Associations receive SCHRI or Clear Skies funding should be ended.
- Targets set for Scotland against Home Energy Conservation Act (HECA) of 1997 should be revised. The Scottish Executive negotiated down targets to below the 30% target set for Local Authorities in England. HECA could be a powerful tool in promoting home energy efficiency and Scottish targets should be revised accordingly.

### **Efficiency standards**

Mandatory efficiency standards on domestic energy appliances or new vehicles should be introduced. This could have a significant impact on the amount of energy used in domestic settings and transport.

### **Micro generation and Renewables**

The greater introduction of microgeneration or decentralised energy (DE) across the UK could have a significant impact on carbon emissions where currently two thirds of the UK's primary energy input is lost through heat going up cooling towers and electricity transmission from large-scale power plants<sup>ii</sup>. Technologies such as

Combined Heat and Power (CHP) and Community Heating are key ways in which we can increase the efficiency of our energy production. The benefit of DE plants and CH networks is that they are capable of distributing heat from different fuel sources - allowing for flexibility in the future evolution of the technology. There is clear evidence that these technologies can work - the Netherlands for example produces 50% of its energy through CHP.

A legislative approach should be taken that sets clear targets for the take up of micropower (as recently promoted by Sarah Boyack MSP in her Energy Efficiency and micro-generation Bill and Mark Lazarowicz MP in his Climate Change and Sustainable Energy Bill). Building and planning regulations can also be amended to further promote the take up of renewable technologies; through for example removing the need for planning permission for some microgeneration technologies and the inclusion in building regulations of a requirement for at least some microgeneration in new build.

This approach would ensure a growth in the take up, affordability and future development of small-scale renewable energy production. Legislation will help to stimulate the market, as manufacturers will have the confidence to invest in larger scale productions, which will bring down costs. It will also encourage more private sector research and development thus improving the efficiency of the technologies.

In addition this approach will help to 'mainstream' this type of technology, removing the perception of these technologies as 'novel' and further promoting a sustainable long-term approach to meeting our energy needs.

### Incentives

Equally important as introducing greater regulation to promote both renewable energy technologies and energy efficiency measures is the use of incentives to promote greater take up within the domestic, private and public sectors.

This could involve:

- Simplifying and harmonising VAT on energy efficient measures, products and services such as insulation, CHP etc.
- Rewarding high energy efficient commercial developments.
- Linking fiscal measures to energy efficiency - such as Corporation and Council tax or business rates that could be reduced for energy efficient properties.
- Providing continuous and uninterrupted funding for the Warm Deal Insulation and Central Heating programmes in Scotland. While we strongly welcome the Scottish Executive's announcement of a two-year extension to these programmes there is currently a six-month funding delay between contracts for these programmes, meaning that jobs are being 'parked' until further income is available. This results in the most vulnerable clients without adequate heating and insulation and increased energy use at a time when energy prices are

extremely high. Access to the Warm Front Programme should also be extended to England and Wales

- Continuing the Central Heating Programme in Scotland and extending access to persons under 60 on benefit who have inadequate heating.
- Extending the Central Heating Programme from Scotland to England and Wales.
- Continuing with the domestic stream of the Scottish Community and Householder Renewables Initiative (SCHRI) in Scotland and putting the domestic stream of Clear Skies on to the same footing i.e. 30% up to a maximum of £4000 and they can apply for 2 technologies.
- Introducing legislation to allow developers to receive SCHRI grant rather than new owner having to claim grant retrospectively.
- Introducing tax incentives for developers to install Micro-CHP.

## Education and Information

An absolutely vital dimension of reducing carbon emissions, both through increased energy efficiency and through the greater take up on alternative energy sources, is information and education. Unless people are fully informed of the options available to them, and of the impact of their energy use, they are unlikely to fully engage in these processes.

There is an urgent need to change people's perception of energy efficiency and of energy itself as a limited and valuable communal resource. Action must be taken to influence lifestyle choices promoting energy efficiency and micro-renewables as attractive and socially responsible options.

Actions to achieve this could include:

- the wide introduction of two-way dynamic metering and smart meters -to ensure that people are better informed about the energy that they are consuming and the impact that it has and to reduce constraints on micro-generation.
- the introduction of informative billing to ensure people are aware of their energy use.
- the wider promotion of youth education programmes - educating the younger generation is an essential component of encouraging behavioural change in society. The Wise Group delivers a range of sustainable energy education projects across Scotland but funding for this kind of activity is difficult to find, making these projects hard to sustain. This has become an increasing difficulty since education was removed as a priority for the Landfill Tax Credit funding scheme.

2. The UK is becoming a net energy importer and with big investment to be made over the next 20 years in generating capacity and networks, what further steps, if any, should the government take to develop our market

framework for delivering reliable energy supplies? In particular, we invite views on the implications of increased dependence on gas imports.

Energy efficiency and renewable technologies will help to promote the security of the UK's energy provision.

By 2020 one third of the UK's (and 100% of Scotland's) generating capacity will need to be replaced - decisions need to be made now as to what will replace it. A key means of ensuring the security of the UK's energy supply is to diversify the energy mix, and to produce more 'home grown' power. The greater localisation of power generation will reduce demand and an important example has been set by the Mayor of London's plans for decentralised energy (DE) and which should be replicated in other densely populated areas. This will however involve the long term restructuring of the UK's infrastructure in order to service DE.

Energy efficiency measures are also a vital aspect of the reduction of risk - the less energy we need to import the safer our supply will be.

3. The energy white paper left open the option of nuclear new build. Are there particular considerations that should apply to nuclear as the government re-examines the issues bearing on new build including long-term liabilities and waste management? If so, what are these, and how should the government address them?

Nuclear power is one option amongst many and must certainly be considered with regards to the full true cost of the option (including of decommissioning and waste fuel storage) for both the consumer and the taxpayer. Regard must be paid to public opinion, which according to recent surveys favours renewable energy and energy efficiency activity over nuclear power. There is a danger that investment in nuclear technologies can divert finite resources away from vital investment in the future R&D of alternative energy sources. Other options such as clean coal technology should also be investigated.

Given the length of time required for new nuclear facilities to come on stream (estimated to take until around 2025-2030) it is vital that any decisions on this issue are made quickly given that the UK's current capacity is set to decline by 2020. Issues with regards to our generating capacity need to be tackled in a timeous fashion.

5. What further steps should be taken towards meeting the government's goals for ensuring that every home is adequately and affordably heated?

There has been a significant reduction in fuel poverty across the UK but much of this reduction has been achieved through the reduction of fuel prices -

rather than the wholesale removal of people from the danger zone where they are vulnerable to re-entering fuel poverty because of price increases.

We believe that energy efficiency activity is critical to the sustainable reduction of fuel poverty. The Scottish Housing Condition Survey (SHCS) estimates that between 1996-2002 455,000 households moved out of fuel poverty but of these only 15% did so because of energy efficiency activity. The rest were impacted upon by price reductions and increased income.

Energy Action Scotland has also estimated that at least 140,000 households have since moved back into fuel poverty because of the recent increases in energy prices and that every 5% increase in fuel prices pulls 30,000 households back into fuel poverty. The only way to reduce fuel poverty that will not be as vulnerable to the fluctuations in cost is therefore through energy efficiency. Further action must be taken to ensure that the good progress made on tackling fuel poverty to date is not lost as a result of these price rises.

The UK government can also take action to reduce the impact of price rises through 'bulk buying' energy on the behalf of those members of society most vulnerable to fuel poverty. The Institute for Public Policy Research (IPPR) has suggested that the government purchase energy and deduct the cost from Income Support or other benefit payments made to disadvantaged people. This would allow access to better value energy - most of those who are fuel poor or in danger of being so use expensive pre-payment meters and cannot therefore benefit from the kinds of discounts companies offer to those paying by methods such as Direct Debit.

The promotion of micro generation also has the potential to impact on fuel poverty if delivered appropriately. The SCHRI programme has been subject to criticism because it does not assist in addressing fuel poverty. This is accurate but we believe that there are a number of ways that these issues can be tackled; there is not necessarily a 'one size fits all' approach to fuel poverty reduction. SCHRI works very well in assisting early-adopters and encouraging low-level market stimulation. For example, the cost of installing a solar water heating system has dropped significantly over the past five years.

In addition a significant rise in investment in this area will clearly be accompanied by a rise in demand for skilled individuals able to install this kind of equipment and whilst many of the jobs associated with this increase would be highly skilled there would also be, as the GLA's Skills and Jobs from Renewal Energy research indicates, some demand for trades and semi-skilled crafts positions. Moreover the report found that the companies delivering these kind of services are generally very willing to take on unskilled but enthusiastic staff in order to train them up in the skills required by the industry.

This rise in demand for labour could clearly be linked to the inclusion agenda through programmes designed to ensure that unemployed and disadvantaged individuals are able to access opportunities. The Wise Group currently provides

training and practical work experience opportunities via our Intermediate Labour Market (or ILM) model. We have successfully used this model in the delivery of home insulation activities and in the provision of energy efficiency advice services. Again a 'joined up' approach at a governmental level should encourage the better consideration of inclusion issues in the development of a micro-generation strategy. Encouraging greater levels of employment amongst the most disadvantaged groups will inevitably reduce fuel poverty. There is a proven association between economic disadvantage and fuel poverty, which can be tackled in part by promoting the greater economic inclusion, via labour market initiatives, of the most disadvantaged individuals.

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## Further Issues for Consideration

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1. The long-term potential of energy efficiency measures in the transport, residential, business and public sectors, and how best to achieve that potential.

As argued in question one, above, we believe that there is great potential for increased energy efficiency in all sectors and that these measures can have a high impact, at a low cost, on both carbon emissions and fuel poverty. This can be best achieved through a combination of incentives, education and regulation.

The Scottish Sustainable Development Forum<sup>iii</sup> estimates that 20-30% of cost effective energy savings are achievable but are largely untapped. It is important to ensure that we maximise all potential savings through making use of the full range of energy efficiency measures that are available to us in the domestic, commercial, heat, transport and public sectors

The UK could save a third of all energy that it uses - not only cutting carbon emissions but also saving the UK economy up to £12bn. Much of this can be achieved through very small actions such as not leaving machines on standby mode (which is estimated to account for up to 2% of the UK's energy produced), the use of energy efficient light bulbs etc. A systematic and widespread programme of education, information and advice is crucial to ensure that these small actions are taken; influencing lifestyle choices and giving people a clear understanding of the benefits of an energy efficiency approach.

4. Potential measures to help bring forward technologies to replace fossil fuels in transport and heat generation in the medium and long term.

It is widely recognised that Scotland has the potential to become a world leader in the development of alternative energy sources. A recent report by Gerrad Hasson states that Scotland is capable of supplying 75% of the UK's energy needs through renewable sources. These potential sources of energy should be exploited to the full.

This would not only have a positive environmental impact but would also have a positive economic impact for the UK, generating job opportunities and an opportunity for the exporting of new technologies.

Scotland has great potential for energy production and economic development in marine (tidal and wave) technologies - but this requires investment. Greater investment in R&D in this area would not only have a beneficial impact on the UK's carbon emissions but would also have a benefit in terms of Scotland's international competitiveness. Alternative energy creation should be a priority

area under the UK government and Scottish Enterprise's future enterprise strategy. This creates an opportunity not only to reduce carbon emissions but to increase our economic competitiveness.

Renewables obligations have to date largely benefited offshore wind rather than other technologies - there is also a need to take action to ensure that we invest in the development of a diverse mix of renewable sources.

This should include the promotion of Biomass, which again as well as having a positive environmental benefit can offer economic benefits, offering opportunity for agrarian renewal. The growth of energy crops would have a positive impact on the rural economy, and estimates state that there could be 300,000 jobs created in this sector across Europe by 2020 for the biofuels industry<sup>iv</sup>. The promotion of biomass heating could create between 2000-3000 jobs in Scotland alone<sup>v</sup>. A programme of incentives (such as grants, zero interest loans or enhanced capital allowances) should be put in place to persuade potential suppliers to invest in the capital equipment and facilities necessary to develop this industry.

In the development of all of these technologies it is also crucial that we promote the development of the long-term skills base in order to ensure that we can fully exploit these technologies - areas such as engineering skills will be crucial to ensure that Scotland can fully promote these home grown technologies.

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## Contact

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<sup>i</sup> IPPR – article for [www.energyfuture.org.uk](http://www.energyfuture.org.uk)

<sup>ii</sup> Mayor of London – Powering London into the 21<sup>st</sup> Century.

<sup>iii</sup> The Scottish Sustainable Development Forum - article for [www.energyfuture.org.uk](http://www.energyfuture.org.uk)

<sup>iv</sup> See [www.dti.gov.uk/renewables](http://www.dti.gov.uk/renewables)

<sup>v</sup> See Forum for Renewal Energy Development in Scotland (FREDS) – recent report to Scottish Executive and Sustainable Development Commission’s “Wood Fuel for Warmth”