

*THE SECURITY AND AFFORDABILITY OF OUR CURRENT ENERGY MIX HAS BEEN CALLED INTO QUESTION IN THE LAST YEAR.*

*ENERGY POLICY WILL BE A KEY COMPONENT OF AN INTEGRATED STRATEGY TO TACKLE CLIMATE CHANGE.*

*IMPROVED EFFICIENCY IN THE HOUSING STOCK AND UTILISATION OF MICROGENERATION COULD SIGNIFICANTLY REDUCE FUEL POVERTY.*

*NORTHERN IRELAND HAS SIGNIFICANT RENEWABLE ENERGY RESOURCES YET ONLY 6 % OF OUR ELECTRICITY IS PRODUCED FROM RENEWABLE SOURCES.*

*THE ECONOMY WILL BENEFIT FROM SWIFT AND DECISIVE INVESTMENT IN ENERGY EFFICIENCY AND RENEWABLE TECHNOLOGIES.*

## KEY RECOMMENDATIONS:

- Use Northern Ireland's energy policy to deliver our responsibility to reduce carbon emissions by 80% compared to 1990 levels by 2050.
- Adopt the EU target of sourcing 15% of all our energy (electricity, transport and heat) from renewable sources by 2020.
- Set annual targets to upgrade the existing housing stock to recommended insulation levels and ensure that all new homes are zero carbon by 2016.
- Introduce mandatory micro-generation, including community heating schemes, and incentivise retrofitting with feed-in-tariffs.
- Develop an action plan to facilitate the renewable energy penetration (42%) which the All Island Grid Study reported as achievable by 2020.
- Invest in creating a low carbon economy now to realise the job creation and wider economic benefits that will follow.
- Include the energy used in transport within the integrated energy framework.

### INTRODUCTION

1. In the last year gas and oil supplies to Europe have been compromised by political unrest, which contributed to oil prices peaking at \$147 per barrel in June 2008. The volatility of the energy market has required us to question the **security and affordability of our energy supplies**.
2. DETI has recognised that **“National and International developments are increasingly moving the primary focus of energy policy worldwide towards tackling the threat of climate change.”** The EU and UK government have recently set ambitious targets for carbon emissions reductions; the targets will only be achieved through decarbonisation of our energy supplies.
3. Now is the time to **think strategically about energy policy**. We are close to or past the point of **peak oil** production; the conservative International Energy Agency has predicted that oil price will exceed \$200 per barrel by 2030. The UN is also confident of brokering a new global deal to cut carbon emissions, which may result in the introduction of **personal carbon allowances**.

### ENERGY IN NORTHERN IRELAND

4. Northern Ireland’s current reliance on fossil fuels – **approximately 99% of our energy is imported** – means that we are particularly susceptible to price fluctuations and security of supply issues. It is estimated that 81% of energy consumed in Northern Ireland, excluding transport, is used for **space heating and hot water** in buildings and in commercial and industrial uses.
5. **34% of households in Northern Ireland are fuel poor**. Approximately 500,000 homes in Northern Ireland have either no loft insulation or have insulation below the recommended levels of 270mm, while some 70,000 homes would benefit from cavity wall insulation.
6. DETI estimates that, on average over the last 15 years, **electricity consumption has increased** by 1.8% per annum. The Northern Ireland Sustainable Development Strategy includes a target to (from 2007) **“reduce consumption of electricity by 1% annually until 2012.”**
7. Despite having one of the best renewable energy resources in Europe **only 6% of our electricity is produced from renewable sources**.
8. The burning of coal, oil and gas accounts for 75% of Northern Ireland’s greenhouse gas emissions. Household emissions (including transport) in Northern Ireland are 39% above the UK average. Northern Ireland’s per capita **carbon footprint is six times the global fair share** emissions allowance.

### MAKING THE SWITCH FOR A BRIGHT FUTURE

9. Energy and climate policies must be coupled. Northern Ireland should adopt the targets within the **EU Climate and Energy Package** and the **UK Climate Change Act** at a regional level.
10. A Northern Ireland Climate Bill with a target to **reduce our emissions by 80%** (compared to 1990 levels) by 2050 and a Strategic Energy Framework target of sourcing **15% of all our energy (electricity, transport and heat) from renewable sources** by 2020 will act as the **driving forces towards a low carbon society**.
11. The Assembly should set annual targets to **upgrade the existing housing stock** to recommended insulation levels: all **new homes should be zero carbon by 2016**. **Mandatory micro-generation**, including community heating schemes, should be introduced and incentivised with **feed-in-tariffs**. It is estimated that by 2050 micro-generation could supply 30-40% of the UK’s electricity needs.
12. The All Island Grid Study suggested that **42% of power generation could come from renewable sources in 2020 without a debilitating increase in cost** (7%) compared to continuing with our current energy mix. The cost differential will lessen as fossil fuel prices increase.
13. Action Renewables estimate that almost 6,000 short term and 400 long term jobs could be sustained in Northern Ireland, exclusively by developing renewable energy within the region. Gordon Brown has stated that the overall added value of the **low carbon energy sector by 2050 could be as high as \$3 trillion per year worldwide and that it could employ more than 25 million people**.
14. The energy framework must consider the energy used in transport. Transport was responsible for around 30% of the regions CO<sub>2</sub> emissions in 2004. To significantly reduce transport emissions walking, cycling and public transport must be made more accessible and attractive. New technologies should also be utilised and could help **maximise the potential of our renewable resource**; for example, off-peak renewable energy could be used to power electric public transport vehicles.