

THE LOW-CARBON ECONOMY: a briefing for Members of the Scottish Parliament

1 Over a number of years, the Royal Society of Edinburgh has drawn on the great depth and breadth of expertise within its Fellowship to provide evidence and advice to policy makers on the transition to the low-carbon economy. As well as engaging in the development of the Climate Change (Scotland) Act 2009 and subsequent strategies arising from the Act, the RSE carried out its own major inquiry “*Facing up to Climate Change*” which reported in March 2011. The RSE’s strength is its ability to bring together experts from a variety of disciplines and backgrounds, with experience ranging from science to policy to practice, and that crosses traditional boundaries between institutions and government departments. Moreover, the RSE is independent and has no sectional interest.

The path to a low-carbon economy

2 The two years since the adoption of the Climate Change (Scotland) Act 2009 have seen a raft of reports and action plans produced by the Scottish Government, aimed at identifying and communicating the path by which Scotland will meet its ambitious emission reduction targets. Key publications include the Energy Efficiency Action Plan (October, 2010), a Low-Carbon Economic Strategy (November 2010), the Report on Proposals and Policies (March 2011) and the Routemap for Renewable Energy (June 2011). This on-going activity has been accompanied by significant parliamentary debate and the RSE welcomes the commitment of MSPs to driving forward the transition to a low-carbon economy.

3 From the outset, the RSE has called for debate and policy-making in this area to be grounded in realism. First, it must be understood that there is a distinction between a strategy for economic growth and the low-carbon agenda. While the Scottish Government makes clear that all activity, including meeting emission reduction targets, should support its core purpose, there are pressing factors to support the transition to a low-carbon economy that are not directly related to growth. Agendas around efficient use of resources, energy security and a healthier environment may be

sufficiently urgent to justify action in their own right. Second, there are inherent risks and uncertainties in moving to a low-carbon economy that must be recognised. There are significant opportunities for Scotland’s nascent low-carbon industries and cutting edge researchers, although success will rely on emerging international markets for renewable technologies. Strategies must demonstrate that these risks have been properly considered and balanced if they are to win the support of stakeholders.

4 The path to a low-carbon economy must be based firmly on a clear analysis of where Scotland’s competitive advantages lie. It is not enough to have advantages in natural resources; there must also be access to engineering expertise, a skilled workforce, finance, modern infrastructure and a supportive regulatory environment. Further, there must be a clear, objective picture of what Scotland’s future energy needs and export potential will be; the generation capacity of different options within the limits of available timescales and investment; and the costs involved both in developing technology to a stage from which it can be rolled out at commercial scale and in installing or upgrading the infrastructure required. The Routemap for Renewable Energy begins to tackle some of these questions, but lacks the quantitative data needed for the effective analysis of options.

Overcoming the barriers to a low-carbon economy

5 Recognising that the transition to a low-carbon economy will require a fundamental shift in the structure of our economy, and indeed in society more widely, the RSE initiated, in late 2009, its own major inquiry, *Facing up to Climate Change: breaking the barriers to a low-carbon Scotland*. The remit of the inquiry was to investigate the gap between the policies needed to achieve Scotland’s ambitious climate change targets and where we are now, identifying the barriers to action and making recommendations as to how they can be overcome.

- 6 The inquiry brought together the expertise of the multi-disciplinary Inquiry Committee and extensive evidence gathered from the public, private and third sectors, communities and individuals from across Scotland, and beyond. The report reflects the real experiences of both those tasked with leading the transition to a low-carbon society and those who are voluntarily taking action. It considers the policy context, evidence and recommendations for a wide range of sectors that will be crucial to the transition to a low-carbon economy, including finance, energy, industry, transport, water and land use.
- 7 The fundamental message of the report is that while there is significant activity at the level of the EU, the UK, Scotland, local authorities, local communities, households and civil society, there is a disconnection between policies and their implementation at different levels that acts as a major barrier to progress. If Scotland is to achieve its emission reduction targets, the Scottish Government has a pivotal role to play in streamlining activity and facilitating a strong, coherent drive towards a low-carbon economy.
- 8 The report's recommendations are designed to enhance integration and focus on some of the key barriers that urgently need to be addressed. These include an overhaul of the infrastructure and management of the electricity grid; retrofitting existing regulation to achieve a balance with the need to reduce carbon emissions; developing innovative finance mechanisms that maximise private sector investment; achieving a step change in energy efficiency; optimising land use for climate change mitigation and adaptation; and supporting local communities in gaining economic and social benefit from local initiatives.
- 9 The report highlights the potential of city regions in helping Scotland achieve a step change in carbon emissions. This is where most people live and travel and where efficiencies in infrastructure, energy use and generation, transport and recycling resources are most easily achieved.
- 10 There is also an emphasis on the need for real engagement between people, communities and civil society, going beyond mere consultation and media campaigns, to ensure that all of society has a stake in the transition to a low-carbon economy. There is a major role for central and local government, the media and local communities in actively promoting the take up of a low-carbon agenda by civil society.

The role of the Scotland's governing institutions

- 11 In order for Scotland to make a successful transition to a low-carbon economy, strong, consistent leadership will be required at all levels of government. It is only through leading by example and embedding the low-carbon mindset in its activity across the board that government will achieve the buy-in of Scotland's businesses, communities and civil society.

Further information and contact details

The RSE's report "*Facing up to Climate Change: breaking the barriers to a low-carbon Scotland*" (March 2011) can be found at www.achangingclimate.co.uk.

For further information please contact Susan Lennox, RSE Policy Officer, on 0131 240 2789 or at evidenceadvice@royalsoced.org.uk.

All RSE advice papers can be found on its website **www.royalsoced.org.uk**.

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