

Realising a low carbon economy in Scotland

A large, white outline of a lightbulb is centered on the page. Inside the bulb, a stylized plant with several leaves is growing, symbolizing a 'bright idea' or a sustainable future. The background of the page is a light teal gradient, and the title text is overlaid on the upper part of the lightbulb.

A Discussion Paper

Key Learning Points

A lack of systemic policy making, lack of Scottish R&D and a lethargic attitude by the general public currently mitigates against Scotland realising its aspiration of becoming a 'low carbon' country.

Scotland should capitalise on its combined 'first mover' advantages of rich natural resources and unique constitutional set-up. We do not want to be in a position in 2030 of looking back to 2010 as a wasted opportunity.

Sector skills are key to the development of low carbon technology which needs to be more fully developed within Scotland.

There should be more education, public awareness that a 'low carbon' or 'resource efficient' Scotland is an inherent good

Leadership is vital at all levels and on this agenda , there should be more systemic policy making across all areas of policy for the Scottish Government

We need to be active in setting standards and beware of technological blind alleys

Introduction

On 8 March 2010, Scotland's Futures Forum held a seminar to consider how far we are from realising a low carbon economy in Scotland. The seminar was attended by 90 policymakers, academics and those from the third and business sectors.

David Robson from the Scottish Government began the afternoon with a short presentation in which he set out the various dimensions of potential change involved in realising the transition to a low carbon Scotland.

He first considered the global drivers for a low carbon world, namely:

- > Increased urbanisation
- > Energy security
- > Environmental degradation
- > Globalisation of markets
- > Access to food and water
- > Global population growth
- > Climate change

In order to achieve a low carbon Scotland, he believes that profound changes to our existing ways of living will be necessary:

- 1 We will need to generate and use energy much more efficiently.
- 2 We will need to invest heavily in new low carbon systems and infrastructure.
- 3 We will need to adapt to an inevitable level of climate change.
- 4 We will need to evolve our understanding and behaviours.
- 5 Scotland has the potential to benefit globally from being at the vanguard of low carbon technology.
- 6 Future energy security will be interdependent on a wide range of factors (environmental, food, water and health security).
- 7 New partnerships between citizens, communities, businesses and governments will be necessary to deliver the change required.

He cautioned against our inability to envisage the consequences of consequences and suggested that our biggest failing may not be down to a lack of data but to a lack of imagination. Success in the past can blind us to a real understanding of a future reality.

Deliberations

Participants were asked a series of questions:

- ***How far are we from our aspiration of a low carbon Scotland? Discuss the opportunities and threats.***
- ***When will these threats and opportunities manifest themselves between 2011 and 2025?***
- ***And based on today's discussions, identify the most important short and medium term actions within your own work area which you now need to consider to help achieve our shared aspiration of a low carbon Scotland.***

Definitions

Some participants questioned how widely the aspiration of a 'low carbon Scotland' was shared. Some were of the view that low carbon was only part of the jigsaw and that we should also consider issues of biodiversity, water security, environmental degradation and so on. One participant questioned whether the term 'resource efficiency' might resonate more widely.

David Robson felt we should also ask ourselves who we meant by 'we'. Given that Scotland's population constitutes only 10% of the UK population as whole, perhaps we should be thinking of solutions for us all.

Skills and technological development

There was a widespread feeling that sector skills will be crucial, although it was agreed that it was not always clear what skills were needed and that we were perhaps in a stage of 'letting 100 flowers bloom'. A renewable energy skills group has been established to map the skills required.

It was noted that, as new technologies emerge, there are often competing standards (for instance, Betamax versus VHS) and that, over time, markets come to loathe incompatibility and usually settle on one standard. David Robson cautioned against 'technological blind alleys'.

However, it was felt that Scotland should see the low carbon/resource efficiency agenda as an opportunity, particularly given its rich natural resources. One participant cited research which revealed that 50 cities across Europe saw Scotland as a leader in the development of low carbon technology.

Scotland's advantages?

It was suggested by a number of participants that Scotland enjoys a unique 'first mover' advantage because of its natural resources and constitutional set-up. It is potentially small and nimble enough (and not beholden to membership of unwieldy international groups) to be more ambitious with this agenda.

Scotland is amongst just a dozen areas of the world to benefit from the best environment for wave technology, because its tides are highly predictable. And we have already seen rural communities experimenting with developing their own wind energy resources.

Many participants thought that Scotland should prioritise indigenous technology that has the potential to grow the economy as well as have an impact internationally on the environment. We should be thinking how our 'local' actions can reverberate globally.

Timing

Most participants were of the view that, given the scale of the problem, we must put measurements in place now. When we reach peak oil is academic. David Robson said that we will need to invent as we go along, as the timeframe is not in our gift and, as yet, no-one has the successful model.

However, others questioned whether we have the capital and nous to make it happen. For example, transport constitutes a significant percentage of carbon emissions and substantial public investment would be necessary to develop new forms of low carbon transport.

Leadership

There was no question that political leadership was key. We should not wholly rely on market incentives to drive this agenda, particularly given that policymakers have had their fingers burned in recent years by the fallout from the financial crisis. The presumption that markets will self-regulate has been eroded in recent years.

A sense of vision at all levels – from national government to local communities – is also critical. Most participants were of the view that there would need to be a mixture of drive and action both top-down (e.g. regulation and licensing) and bottom-up (e.g. community-driven projects).

Culture change

There was a unanimous view that behavioural and cultural changes will be necessary to bring about a low carbon Scotland. David Robson felt that transition would be no less challenging and fundamental than the transition of the former Eastern block countries to a market economy.

Not only must we seek ways to 'decarbonise' our economy but we should be looking to reduce consumption of resources.

Existing good practice

It was felt that there was a considerable amount of existing good practice and that we should capture what companies were already doing on this front. One participant cited the work already happening in the construction industry and asked that we consider how best to promote and disseminate this information.

With changes to the feeding tariff due to take effect in April 2010, we might see more individuals and communities producing energy as well as consuming it. And currently, properties for sale must have an energy performance certificate but perhaps we should consider extending this to all housing stock.

Lisa Mackenzie

Scotland's Futures Forum

March 2010

Organisations attending Low Carbon Scotland cafe

Aquamarine Power
 Christian Aid
 Church of Scotland
 Clackmannanshire Council
 COSLA
 Edinburgh Chamber of Commerce
 Edinburgh University
 Fife Council
 Highlands and Islands Enterprise
 Lloyds Banking Group Scotland
 Napier University
 NESTA
 Oxfam
 PA Consulting
 Proskills
 SCDI
 Scotland & Northern Ireland Forum for Environmental Research
 Scottish Business in the Community
 Scottish Enterprise
 Scottish Institute of Sustainable Technology
 Scottish National Heritage
 Scottish Rural Property and Business Association
 SCVO
 SEPA
 St Andrews University
 Tesco
 The Royal Society of the Arts
 The Scottish Government
 Thirdwave
 VisitScotland
 Zero Waste Scotland

For more information on the work of the Forum please contact:

Donald Jarvie
 Head of Business, Scotland's Futures Forum

donald.jarvie@scottish.parliament.uk
 0131 348 6698
www.scotlandfutureforum.org

All Forum publications are available in alternative formats, on request

Acknowledgements

Scotland's Futures Forum Supporters



Project Partners

The Association of Chief Police Officers in Scotland
 The Goodison Group in Scotland
 Highlands and Islands Enterprise
 NHS Education Scotland
 Rapploch Urban Regeneration Company
 Shell UK
 The Royal Society of Edinburgh
 National Trust for Scotland

The Forum is grateful for the financial support given to support this project from the organisations listed. However, the contents of this or any other Scotland's Futures Forum publication, do not necessarily reflect their views.