



THE SCOTSMAN CONFERENCES

CAN THE GREEN ECONOMY DELIVER FOR SCOTLAND?

In partnership with



QUEEN MARGARET UNIVERSITY, 24th MAY 2010

Opening remarks:

David Lee, conference chair

Rosalyn Marshall, Vice Principal, Queen Margaret University

Julian Taylor, Director of Strategy Development and Network Performance, Scottish Enterprise.

Speakers:

Session 1 – Creating the right conditions

Jim Mather MSP, Minister for Enterprise, Energy and Tourism

Dr Richard Dixon, Director, WWF Scotland

Lady Susan Rice, Managing Director, Lloyds Banking Group Scotland

Session 2 – Making it happen

Adrian Gillespie, Director of Energy & Low Carbon Technologies, Scottish Enterprise

Mike Donald, Safety, Environment & Risk Manager, Michelin Tyre plc

David Tonery, Managing Director, Oxy-Gen Technology

Max Carcas, Business Development Manager, Pelamis Wave

Rick Eggleston, Managing Director, REpower UK

Session 3 – What we need to get right

Nigel Ellis, Ventures division, Scottish & Southern Energy

Jim Brown, Head of Renewables, Energy and Utility Skills

Ronnie Hinds, Chief Executive, Fife Council

Introduction

This report looks at key themes coming out of the event. There was a clear acceptance of the huge potential of renewables and clean technology in Scotland – and an acknowledgement of the massive amount of innovation going on. However, there was concern Scotland could be left behind again despite the fine words – and that issues like finance, infrastructure and skills aren't being addressed as comprehensively and as quickly as they might be.

Jim Mather said Scotland had to anticipate the changes that were coming - and move now, not follow others, and risk being left behind. He stressed that success could only be delivered if the private and public sector worked together effectively and if environmental and economic goals were seen as complementary. He said: "The low carbon economy represents a bigger economic opportunity than business as usual" and "there are substantial cost savings in many sectors of the economy through effective use of resource and energy efficiency actions in particular, making Scotland's public and private sector more competitive".

Scotland's advantages

There was general agreement that Scotland has significant competitive advantages in developing the green economy. These include:

- * Size - offers an opportunity to get all key players together to get things done.
- * Energy resources – 25% of Europe's tidal stream and 10% of its wave power potential, and licences in place to exploit this.
- * Enterprising people, who have historically punched above their weight in designing and refining innovative new products.
- * Huge expertise in the oil and gas sector and its support services that can be transferred to many of the jobs needed in renewables
- * Political will to lead the way – evidenced by the 42% target to cut emissions and how this could be used as a spur to drive on the green economy.
- * A ready acceptance from business and government that good environmental practices and economic benefit can go hand in hand.
- * Strength in Research & Development and in support networks (such as the Scottish Environmental Technology Network at Edinburgh University).

Disadvantages

- * The challenge of financing complex, long-term projects, especially in difficult economic times – and a lack of investment in infrastructure.
- * The need to upgrade and reinforce the grid network
- * A lack of people with the right skills
- * Difficulties in obtaining planning consents
- * Failure to move quickly enough in the past might be repeated

A mass of activity

Jim Mather and Adrian Gillespie presented a picture of a huge amount of activity in the renewables and clean-tech sectors. Mr Gillespie said the challenge was to “capitalise on the strengths and capabilities and turn them into economic opportunities for Scotland” – by helping existing companies and working to create new ones. He outlined four particular areas of strength: Renewables; Carbon Capture and Storage; Building Technologies; Sustainable Transport

Mr Gillespie said it was vital to look at developing technologies in Scotland that could be exported globally, which would in turn leverage further international investment.

A moral debt?

Richard Dixon said innovative Scots had played a huge part in developing the car, the tyre, road surfaces, the steam engine and mass communications – and that the world’s first oil baron was a Scot, James ‘Paraffin’ Young. However, he argued, these inventions had a significant effect on global warming and therefore modern-day Scottish innovators had a moral duty to use their skill to develop green alternatives. They were doing well with marine devices like the Oyster and Pelamis, he said.

Finance

The big theme of the day – how do we pay for the green economy when three central factors are squeezing investment: banks are more cautious about investing in the wake of the financial meltdown; the public sector is facing a major funding crisis; many green companies develop complex technologies that will only give long-term returns, which could put off would-be investors.

Max Carcas said Pelamis lived a “hand to mouth” existence as it battled to find money. It had pulled together £43 million from a wide variety of sources over its 12-year history, including £6.5m in direct grant support.

Lady Susan Rice described her tough task as chair of the finance sub-group of Scotland’s 2020 Leadership Climate Group: “The task is much larger than matching money to initiatives. Where technology is still in its infancy, banks aren’t always best placed to take the risk. In the main, banks require a robust track record and a solid business case to agree financing. We need to find ways to underwrite the risk....or seek different funding models.”

She suggested “a packaged approach” was needed, mixing public and private finance, equity, loans and incentives and access to capital markets. She said the sort of issues that had to be addressed included subsidies, tax reform, finance, and funding barriers to markets.

Venture capitalists are already stepping in to fill some of the gap, with a 2009 report highlighting a record number of clean-tech VC deals. Nigel Ellis said Scottish & Southern entered the market because it saw opportunities and had become one of Europe’s biggest players with £120m invested across a huge range of projects. He insisted “good companies in this area can always find money somewhere”.

Susan Rice said the 2020 finance sub-group might create a ‘roadmap’ for financing the green economy, to include information about all potential funding streams. In a group discussion later, it was agreed SMEs needed more information on funding and on getting innovations to the market.

Susan Rice and Jim Mather both stressed the private sector could not go it alone, Mr Mather said: "In some critical areas fundamental to the transition [to the green economy], levels of investment needed in the new energy and transport infrastructures in particular are such that Scotland's market place will not be able to deliver this alone. There is real need for additional investment from all levels of Government." But Mr Mather warned: "To think there is a money-chute is fanciful. We need to look at that which is bankable and follow the money."

The Offshore Valuation group report, published last week to look at the opportunities in offshore wind and wave and tidal power, estimated £4bn of investment would be needed each year in Scotland alone.

Richard Dixon, Director of WWF Scotland, said the proposed Green Investment Bank was no simple answer. He insisted it had to be well-funded, work effectively and not just divert money from existing sources. Susan Rice agreed the new bank would be a complex operation and would probably need around £20 billion, ten times the figure mentioned by the Labour government when it announced plans to establish the bank.

She added: "The challenge of financing the green economy is about creating new models and different partnerships, thinking in a different way - and considering how finance can be best targeted to create the biggest impact."

Infrastructure/challenges from abroad

Mr Gillespie said investment in infrastructure was crucial – especially to assist with research and testing - and was supported by Rick Eggleston of REpower UK. He said one town in Germany he visited recently had committed £50m to port facilities to service the renewables industry, whereas Alistair Darling's last budget committed £60m for all of the UK. "They are thinking on a different scale in Denmark and Germany," he said. Max Carcas of Pelamis Wave supported this: "Countries like Germany have got where they are by investing heavily." A group discussion asked if investment should be looked at in a different way by targeting infrastructure, which would in turn help firms.

Dr Dixon said President Obama had committed \$15bn per year for a decade to renewables and that sort of sum represented an enormous challenge, as a huge range of technological developments could focus on the US.

Skills

A lack of engineering skills for the renewables sector was raised as a key problem. Pelamis Wave and REpower UK both highlighted their difficulties in recruiting highly-skilled engineers and project managers. "There are 15 per cent fewer engineering graduates than ten years ago and that is a problem," Mr Eggleston said, adding that REpower had recruited lots of people from industries with "transferable skills and hunger" and trained them up. But he was concerned the same people were being recycled from industry to industry from a limited pool - and more people were needed in that pool.

Mr Brown, who works with industry and government to deliver relevant skills across the renewables sector, said ministers accepted the system had to respond quickly to the needs of business. However, he said estimates for the number of jobs within the green economic sector varied from 26,000 to 600,000, which made planning difficult.

Mr Brown also said existing expertise leaving the workforce was a problem, with an estimated 90 per cent of those in the power sector due to leave it by 2024. At the moment, he added, it was estimated 3,000-4,000 new workers would be required by the renewables sector every year until 2020.

But he said there was a window: "We will need lots more skilled people from 2014 onwards in particular so we do have a window to get our act together." Mr Brown said he was working with Skills Development Scotland/the Scottish Funding Council to target funds at industries that need extra employees – and with colleges and universities on specific needs. North Highland College in Thurso was noted as an institution that had shown an ability to change – it was using its experience in running courses designed to serve Dounreay to provide expertise in marine renewables.

Mr Brown said: "The government has to be responsive to industry in the short-term while we develop the framework with colleges and universities to get the courses and qualifications in place in the longer term." New qualifications coming on stream included wind turbine operation and maintenance and micro-renewables, he added.

Mr Brown said there was no mechanism for re-skilling within the system, but Mr Eggleston urged companies to be realistic about their role: "Perfect employees don't exist. Companies have to accept that they have a role in re-skilling people who have talent and good transferable skills." Mr Carcas said: "There are certainly not enough engineers in Scotland and we have to invest in that." Good project managers were especially hard to find, he added.

Political challenges

Dr Dixon said that key government money for the development of marine renewables technology and for turbine manufacture had gone to England, and that such decisions could be viewed as politically driven. Why would R&D money for further work on wave power come to Scotland when it could go to Cornwall, where the Con-Lib coalition was very strong, he asked.

Home ground

Dr Dixon said one-third of carbon emissions came from our homes – and that this represented a big opportunity to do something, but that it would carry a big bill, an estimated £16bn to retro-fit homes to modern energy efficient standards. He urged the government to join up its thinking so it saw the huge health and well-being benefits in carrying out such a programme, which could bring huge long-term savings.

The role of local government

Ronnie Hinds, Chief Executive of Fife Council, said councils had a "critical and credible" role to play in leading the transition to a low-carbon economy. He said local authorities often found themselves at the heart of significant environmental projects, using the example of paper manufacturer Tullis Russell and its move to a Combined Heat and Power system at its plant near Glenrothes. Mr Hinds said although the move had been driven by soaring fuel costs, the project proved economic and environmental benefits could go hand in hand. Fife Council had been involved in the planning process, advised on funding and played a big role in community engagement. "The CHP plant will be good for Tullis Russell's bottom line but it also helps Fife reduce its carbon footprint," Mr Hinds added.

He also highlighted the huge strides Fife had taken to reduce the amount of waste it sends to landfill. “When legislation, policy and funding are all working in harmony, that’s the sort of thing we can achieve.”

A group discussion argued there was a need for council departments to work in a more joined-up way – but that the recession and subsequent funding squeeze was an opportunity to do things differently, and more cleverly.

Key themes from the day

- Scotland is well-placed to take advantage of a green economic boom – but it has lost similar competitive advantages before (e.g., wind power).
- We need frameworks in place to develop the green economy to ensure the right funding systems, the right mix of new industries, the right skills, etc but there is a need to move fast so Scotland does not miss the boat. Is it possible to get the structures in place quickly enough?
- A variety of factors is making funding very hard to come by and structures need to be established quickly to tackle this and gets the money flowing.
- There has to be effective co-operation between the private and public sectors at all levels and across all sectors.
- Skills shortages in renewables need to be addressed as a matter of urgency – especially a lack of engineers.
- There is a real need to invest in infrastructure as other countries are pulling ahead by putting in huge sums.