



DISCUSSION SESSION PAPER

Session 2: Achieving sustainable economic growth in the energy industry

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Achieving sustainable economic growth in the energy industry

Hosted by Jim Mather MSP, Minister for Enterprise, Energy and Tourism
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The Global Energy Situation

Until a few years ago, the availability, reliability and cost of energy was taken pretty much for granted. However it is now well understood that world energy demand will nearly double between now and 2030, and that this increase will be met largely by fossil fuels.

Developing countries, particularly China and India, drive the major proportion of this increased demand, and despite a desire to deploy more sustainable forms of energy generation, coal will remain the dominant fuel source in these countries. Oil & gas will also remain in strong demand to meet increasing growth in the developing world's transport, heating and cooling needs.

Security of supply is expected to be a cause for concern in the years to come. Major new reserves of oil and gas are still being discovered, but generally located in ultra-deep water or other hostile environments, and dependent on stretching the technological envelope ever further.

The drive for greater supplies of energy is coupled with a growing recognition of the need to significantly reduce emissions, maintain costs at affordable levels, and reduce demand through improved energy efficiencies.

Scotland's Energy Situation

Oil and gas production from the domestic UKCS is declining, but will continue for another 20-30 years. Investment will reduce over this period and lifting costs will increase due to smaller new reservoirs, plus pressure on skills, materials & equipment.

But Scotland's 2,000+ oil and gas businesses have increased international sales to almost £5 billion (approaching 50% of revenues in 2006/07), and have opportunities for continued growth. The sector is made up of a modest number of major contracting organisations plus a vast array of specialist SMEs, technology developers and service providers. Academic linkages are generally strong with major operating companies.

The success of the oil & gas sector is based on experience in the North Sea, innovation in service delivery, developments in technology, and collaborative working arrangements.

Scotland's **Power Generation** sector (coal, gas and nuclear) faces similar uncertainty with regard to domestic activity, but has significant opportunity for growth internationally. The industry sector has a handful of large, world class engineering design and manufacturing companies, plus SMEs and consulting engineers.

Expert research, design, innovation, and technology development in Scotland remain the key components for growth in global markets. Scotland must therefore maintain and grow its higher value offerings if the sector is to remain attractive and competitive globally.

Renewable Energies. With a unique combination of natural resources (wind, waves, tides etc), a strong academic research base, world class industry supply chains, and positive stimulus from Government, Scotland has a target to achieve 50% of electricity requirements from renewable sources by 2020, with an interim target of 31% by 2010. The renewables sector is witnessing growth in the number of participants, estimated now to be about 200+ companies, with research expertise evident in several of our universities.

For Scotland to benefit economically and grow these nascent industry sectors in renewable energies, the technologies need to be validated, reliability must be ensured, and most importantly, costs need to be reduced.

Energy Challenges/Opportunities

The following challenges and opportunities relate equally to Scotland's oil & gas, conventional power generation, and renewable energies sectors, and are proposed as the basis for discussion at the Business in Parliament Conference - Energy Break-Out session on 22 February.

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Key discussion questions to be discussed during the energy breakout session

1. Scotland's "companies of scale" in the energy sector operate globally with significant share of revenues generated from, or in, international markets. If these companies are to remain competitive with emerging low cost markets such as China and India, it is essential that they sustain the technological advantage, intellectual property and higher value-add offerings developed and honed in Scotland. **What can be done to assist Scottish companies improve innovation and sustain their international credentials?**
2. Scotland's energy businesses rely heavily on well qualified, innovative and talented engineers to maintain and further develop competitive advantage in design, technology and specialist service provision. Although several discrete schemes operate to stimulate awareness and interest, concern is recorded in every sector about the short supply of new engineers entering the industry. **What can Scotland, as a country, do to enhance the awareness and interest of people in today's hugely exciting energy industries?**
3. Energy businesses are currently experiencing high levels of activity, domestically and internationally. However, previous market swings have been known to impact very seriously on Scotland's energy industries – for example the drastic drop in oil price to \$10/barrel in 1989/1990. **What can be done to help our energy companies prepare for a possible upheaval or downturn in their business environment?**