

**Norwegian-British Energy Seminar at the Royal
Geographical Society**

Into the low carbon future: The role of natural gas

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Good afternoon and thank you for the opportunity to speak at this prestigious event.

It is a particular pleasure to be here at the Royal Geographical Society. This has been home to some of the world's greatest explorers and surveyors. Having supported expeditions by great names such as Darwin, Livingston and Shackleton. As well as playing host to great Norwegian explorers like Roald Amundsen.

The principles that we try to live by in the energy sector do not seem too out of place here. A passion for exploring and understanding the natural world we live in. A respect for people and the environment as we discover new frontiers and challenges.

The story of gas in particular is one of great exploration and discovery. But it is more than just about historic achievements. I had the pleasure of attending ONS, the major Oil & Gas event in Stavanger a few weeks ago. It was clear that the North Sea is still a source of opportunity and dynamism.

This is driven, I believe, by an increasing confidence about the role of natural gas in a low-carbon future.

UK & Norway relationship

Gas is an important part of Norwegian and British heritage. It connects our nations, both physically and philosophically.

The history of Norwegian gas supply to the UK now dates back almost 40 years, to the signing of the Frigg gas sales agreement by my predecessors in 1973. For a number of years, Frigg and its satellites supplied around one-quarter of total UK gas demand.

The Langeled pipeline, which began operating in 2006, heralded a new era of gas supply between our countries. At 1,166 kilometres it was the world's longest underwater gas pipeline. And I am pleased to say that Centrica's long term gas purchase agreement with Statoil, as well our receiving terminal at Easington, in East Yorkshire, helped underpin this project.

Norway's central role in the UK's energy security continues today. In 2011 Norway supplied 42% of our imported gas and around 62% of our imported oil.

The relationship between Statoil and Centrica typifies the Norway/ UK bond. Last year Helge and I were at Number 10 Downing Street with David Cameron to sign a deal that secured gas supplies for the UK through to 2025. The £13bn deal will supply enough gas to meet 5% of the UK's current annual gas demand.

But this deal was more than just an exchange of molecules for money. It reaffirmed the bond between our companies and our countries.

As a sign of this, we also agreed a Memorandum of Understanding to collaborate on gas-focussed exploration opportunities in Norway and the UK.

Norway features highly in Centrica's strategy. We have established a major office in Stavanger and we now have over 150 staff there.

Centrica is involved in energy in both Norway and the UK, so it is interesting for us to see some of the comparisons between our Continental Shelves. Norway still has a lot of promising new acreage. The UK basin is more mature.

As a consequence we in the UK are finding ourselves again at a frontier. Not, this time, facing unexplored regions. Instead it is about pioneering new solutions to cope with the challenges that this basin maturity presents. These include different operating models, the emergence of new, smaller entrants, and the need for a more active Government, providing the right incentives to monetise the dwindling reserves. As an increasing part of the Norwegian acreage enters a more mature phase, there could be scope to share learnings and ensure the full benefit.

So all the signs are there for a continued strong relationship between our companies, and our countries.

And as I said at the beginning of my remarks, I believe that this is underpinned by a renewed confidence in the role of gas in a low carbon future.

Gas in a Low Carbon Future

The challenges of tackling climate change are familiar to us all. Indeed the Royal Geographical Society has been at the forefront of highlighting them. Sir Crispin Tickell, a former President of the Society wrote a book in 1977 called 'Climatic Change and World Affairs'. In it, he argued that mandatory international pollution control would eventually be necessary. The same argument must still be made today.

So significant is the threat of climate change, that I believe gas had a 'crisis of confidence' a few years ago. A combination of high commodity prices and a sense that fossil fuels had a bleak future in a low carbon economy led to a questioning of the role of gas. Policy-makers felt they had a binary decision between fossil fuels like coal, oil and gas, or cleaner energy sources like renewables.

Now, a few years on, our thinking has evolved. We recognise that the carbon emissions associated with different fossil fuels vary enormously. The carbon intensity of coal fired power plants is almost double that of natural gas fired units. To put it another way, if all the coal power stations in the UK were switched to gas, we would cut the emissions from the power sector by a third overnight.

There is also a growing recognition that low carbon technologies also have their challenges. Renewables have costs, as well as benefits. Public concerns about new nuclear have increased following the tragic events at Fukushima.

We have also begun to recognize that there are different pathways towards the same goal. There is no single path to go down. Instead, our choices depend on factors such as the economy, commodity prices, technological developments. And these factors can vary over time, so flexibility is needed.

All of this has meant a revival in the potential role of gas in a low carbon economy.

And of course, this renaissance has been helped by the shale gas phenomena in North America. The potential for significant future shale resources in China, South America and Africa has prompted the IEA to ask whether we are entering a 'golden age of gas'.

And this resurgence is helping reduce CO₂. Last year, the US's emissions of carbon dioxide fell by 2.5%, despite posting economic growth that year. This was largely because the US used more natural gas and less coal.

Here in Europe, gas can also continue to make a significant contribution as we cut carbon emissions. The European Gas Forum has modelled a diversified generation mix across the EU, in which gas plays a significant role. Their pathways go out to 2030, and meet the EU's 2020 renewables targets.

The results speak for themselves. An 'optimised pathway' delivers savings of some €450bn when compared with less-economic pathways. Even higher savings can be achieved under a low gas price scenario, coming in at around €700bn. The scientific case for climate change remains. However, in these challenging economic times, pursuing the most cost-effective carbon reduction pathway is essential.

As Sir Crispin Tickell said, international controls *are* necessary in order to achieve those carbon savings and direct the pathway. The EU Leaders took the bold step to do just that with the creation of the EU Emissions Trading System. Norway, Iceland and Liechtenstein took the laudable decision to join in that system. In my view, it is the most remarkable piece of environmental legislation to have been introduced. Using market forces to discover a price for carbon.

But it is not enough just to create a system. Political will is also needed to sustain it and improve it. The ETS price is currently hovering around €7 per tonne of CO₂. There is no way that this will make a material difference to any investment decision, cause any fuel switching from coal to gas, or send any signal about how serious politicians are about tackling climate change.

Worse still, there is a perception that if the price does reach meaningful levels, the rules might be changed or the market flooded with allowances to undermine it.

We have not yet reached a point at which the ETS is beyond repair. But it soon could be.

Technology or sector specific targets may be a more tempting alternative. But that would be a pity. Technology or sector targets distort the pathway to decarbonisation, forcing a particular route which may not turn out to be the most efficient one.

The example that springs to mind is the debate about a 2030 renewables target. Renewables clearly need to play an important role in the current and future generation mix. Centrica is a major investor in offshore wind as well as gas and existing nuclear power. Our 270MW Lincs offshore windfarm recently produced first power. In time the equivalent of 200,000 homes will benefit from clean electricity.

As a developer of wind we are experiencing the challenges of making projects happen and the challenge for the UK is to meet a very tough 2020 renewables target. It is based on this experience that I am sceptical about the benefits of introducing yet more targets, before we have delivered on our first ones.

I want to see renewables make a major contribution to the generation mix. However, what that contribution should be and the relative contributions of gas, renewables, nuclear, energy efficiency and other options will vary by country. The choices will not just be determined by cost and security of supply considerations but also by the social acceptability of various generation technologies.

For some countries, gas will be a key transition fuel. For others, such as emerging economies or those with significant untapped resource, it may also be a destination fuel.

Conclusion

To conclude, gas, is a cheap, abundant and relatively low carbon fossil fuel. It has a right to be at the table, and to make its contribution.

There is an increasing recognition of this, amongst policy makers and the public and there is a renewed confidence in the role of gas.

Today's event is therefore not just a celebration of the past, but also of the future.

Gas will continue to play a central role in the relationship between Britain and Norway, and in the transition to a low carbon future.

Thank you.