

**NICK HORLER, CEO
SCOTTISHPOWER**

EVENT: David Hume Institute Energy Seminar
DATE: Thursday 2 July 2009
DURATION: 25-30 mins.

Thank you Jeremy for the introduction, and for the invitation to address this evening's seminar.

My presentation tonight is, if you like a story which has two possible endings and we may decide over the course of the evening how the story will play out. Two chapters to this story could be decided in the next 12 months and perfectly illustrate in practice the dilemma facing the energy system in the UK.....I'll come onto that later.

By way of a preface, here's how our industry used to be. Back in 1990, the UK energy sector showed Europe the way in a successful privatisation and the creation of fully integrated private energy companies. The UK enjoyed the benefits of a world class offshore industry. We had abundant North Sea gas that allowed supply to outstrip demand and retail prices to remain low. Our focus was on maximising the efficiency of our generation plant with less thought back then on the consequences of the resulting emissions. It was all about squeezing out that all important extra 1% into a grid network that was built around these fossil fuel power plants near population centres. The political promise around competition and lower prices and abundance of supply and a regulatory regime put in place to promote this. This could be the first part of the UK energy market post liberalisation. The world today looks very different...some things have drastically changed whilst others are still living in the old world.

There has never been a more challenging time for Britain's energy future and designing a "fit for purpose" energy market by 2030 to deliver the key objectives of decarbonisation, security of supply and price competitiveness. A yawning supply gap is opening up as a quarter of the UK's ageing power plants are forced to close by 2015. 45% of our total generation capacity will retire by 2020 with 34GW opening up because of nuclear and coal retirements over this period. This means we need to effectively double the historical capacity build up rate. Supplies of North Sea gas are dwindling, leaving us more reliant on imports. It is predicted that by 2030, only 2% of our gas supplies will come from the UK Continental Shelf. More gas storage will therefore be required as imports increase.

And there is the challenge of cutting UK emissions of carbon dioxide by more than a third by 2020. Fossil fuel –fired power stations which generate 76% of the UK's electricity need to be replaced with low carbon power including "clean coal plants", renewables and nuclear south

of the border - all with the wiring and infrastructure needed to support them. Electricity networks will require a total investment of £15-19 billion to connect all this new capacity.

And we need to focus on energy efficiency - one of the surest routes to energy security. We welcomed the UK Government's recent commitment to roll-out smart meters across every home and business in Britain by the end of 2020 as there can be no doubt that smart electricity and gas meters will have a positive impact on our energy habits and consumption. Industry estimates however suggest an additional £7-10 billion in investment is required alone for this smart metering roll-out.

Meeting these multiple goals to such a time scale will be vastly expensive. Government estimates predict £100 billion of investment is required by 2020 to bridge this gap – with latest forecasts from Ernst and Young valuing the total investment requirement to be nearer £230 billion by 2025....£164 billion to repower and the rest to rewire the UK.

All this takes place at a time of tighter balance sheets and greater competition for increasingly expensive global capital. The credit crisis has reduced the availability of capital and most UK utilities have the option to deploy capital across their pan-European or trans Atlantic portfolios. So while the “credit crunch” may be showing signs of easing, risk-averse investors and companies with global options will need to be confident of securing good returns from UK energy markets if they are going to invest here.

Re-powering and rewiring the UK to create a fit for purpose energy market are not futuristic notions. They are very much live 2009 issues and I would like to provide an insight into two of ScottishPower's current projects in the area of new low carbon generation and also our network investment plans. Two chapters in the unfolding story of the UK energy market.

As many of you will know, the ScottishPower consortium is one of the leaders in the UK Government's competition to develop a commercial CCS project and by retrofitting the technology to our existing power station at Longannet, we can have a demonstration project up and running by 2014 and kick start a North Sea carbon storage industry.

We recognise that coal with its flexibility, security and affordability has an important role to play in helping to bridge to a longer term low carbon economy and compliment the growing contribution from renewables and other low carbon technologies.

But it is also a major source of CO₂ pollution. Can't live with it...can't for now live without it.

CCS offers a promising and powerful solution to squaring that circle. This is a process which has been proved individually but never proven together...capture, transportation and storage... at scale.

Demonstrating this technology at scale and, crucially, proving that it can be retrofitted to existing plant, will mean it could be installed to an estimated 50,000 existing fossil fuel plant around the world which would be a huge step towards reaching global CO2 reduction targets and addressing the carbon lock-in from these stations. The tremendous environmental benefits from a retro-fit solution are the reason why our bid is backed by environmental campaigners including WWF.

The benefits are also economic as well as environmental. Only two weeks ago, the Department for Energy and Climate Change launched its consultation on clean coal, estimating that the technology could bring between £2-4 billion a year into the UK economy by 2030, and support up to 60,000 jobs in engineering, manufacturing and procurement.

Critically, Longannet is also ideally located to access the huge storage potential in the Central North Sea, both geographically and in terms of access to transportation pipe networks.

Expert studies, led by Stuart Haszeldine who is here this evening, have shown that this could potentially store at least 200 years worth of all of Europe's CO2 emissions in identified saline aquifers beneath the seabed and in depleted oil and gas fields.

This means the UK is in a strong position to capitalise on this new CCS industry – first as a potential storage hub site, and second benefiting from a raft of new industries that could find a low carbon UK much more attractive to invest in.

Where industry has previously migrated to low labour cost economies, the future may see business migrating to low carbon cost economies.

ScottishPower and Iberdrola believe that the UK can lead the world with CCS technology, creating new skills, jobs and opportunities for growth. We have committed to creating a global centre of excellence for carbon capture and storage technology here in the UK to help realise this opportunity.

Last month we announced that we will be funding a Professorship of CCS at the University of Edinburgh which will provide a central academic focus for the Centre of Excellence. We also continue to engage with other academic institutions including Imperial College London and Jim's team at Strathclyde University. We believe the UK's academics and scientists can be the best in the world in this field and we want to invest in them and their research.

We also recently switched on a groundbreaking test project that will see CO₂ emissions extracted from 1MW of output from Longannet power station - the first time in the UK, carbon dioxide have been captured at an operational coal-fired power station. It will allow us to apply the theory of carbon capture and test the complex chemistry involved.

By moving quickly to nurture and develop a new talent pool with the necessary skills and expertise we can take a lead in the fight against climate change and ensure coal continues to play an important role in our own energy mix.

Time is of the essence if the UK is to take the global lead. To realise the full potential, we must work together with government, at every level, to explore how we can maximise the benefits to the UK. We need CCS demonstration at scale at the earliest possible opportunity, the development of clear, consistent and fair regulatory frameworks, and financial incentives to provide as much certainty as possible over future costs.

And we are greatly encouraged by the UK Governments commitment to fund 4 demonstration projects including continuing with the existing CCS Competition. There appears a real determination within Government to make CCS work with Ed Miliband recently talking of CCS as a “moral and industrial imperative”. It is also good to see the Scottish Government working closely with the UK Government to help ensure the regulatory framework is consistent right across the UK. And on Tuesday, the Scottish Parliament’s Cross Party Energy Committee published it’s long awaited report on Scotland’s Energy Future and endorsed ScottishPower’s CCS bid.

Potentially very positive but we must kick on, commit the funds and move into action within the next 12 months to meet our CO₂ reduction timescales.

We need a similar coordinated and coherent approach to the other chapter -- the rewiring of the UK low voltage distribution network – the second chapter.

Currently the industry is in negotiation with the Regulator Ofgem to secure funding for essential investment in the 14 electricity distribution networks in the UK for the next 5 years- between 2010 and 2015. This process is known as DPCR5.

The majority of our electricity network was constructed after the Second World War and is now reaching the end of its operational life meaning we have entered a critical period that will see the rewiring of Britain.

The network also requires a fundamental change in its structure to accommodate the connection of new generation sources – particularly renewables.

Over a third of the UK's current renewable generation capacity is connected to the ScottishPower network and this will continue to increase dramatically as we operate in the two areas of the UK with the greatest potential renewable resources.

To meet this challenge, electricity companies have submitted proposals to the regulator identifying an average 60% increase in the amount of capital they need to spend on the network. And to put these figures into context over £8billion of investment is needed in distribution alone to replace ageing assets.

In this key period of change a fair rate of return is essential to attract investment and enable borrowing at higher rates from financial markets. It is imperative that we receive a rate of return from the Regulator to incentivise the level of investment that competes with other calls on the balance sheet domestically and internationally.

And, of course, like CCS, all of this essential investment by the energy industry in networks improvements will be at the heart of the UK's economic recovery. It is estimated that the investment proposals submitted as part of DPCR5 will secure 9,000 new jobs across the industry and represent a significant opportunity for the energy sector to have a major impact on the wider economy.

Historically the approach to regulatory economics had been about nailing down the costs in the interests of the consumer – RPI – x. At this time of rising unemployment, I would hope that they are in a position to effect and understand that a small amount of rate of return can go a long way. Every £100million spent on the network translates to £2 a year on the average consumers' bill but the wider effect on the wider economy can be substantial.

We can and do, as an industry make a big contribution to the UK employment and skills agenda. Throughout 2008 alone, Iberdrola invested over £1billion here in the UK. £200 million in renewables- including the construction of Europe's largest on shore windfarm at Whitelee South of Glasgow; £550million in network improvements and £250million in our generation and retail business. In addition to employing over 10,000 people in the UK, ScottishPower spent over £1billion with UK suppliers last year – creating thousands of additional jobs.

As an industry, our employee demographic means we are anticipating a potential skills shortage with the majority of our engineer population being within 15 years of possible retirement. We will be expanding our apprentice and graduate programmes and attracting

new trainee engineers and other specialised skill sets into the industry. We need to be communicating better the true variety and diversity that's required for this exciting dynamic industry. For instance in the construction of our windfarm at Whitelee – we not only required an army of electrical, mechanical and civil engineers, but also ornithologists and ecologists to name but a few. It was this highly diverse team that designed, developed and built the 90km of floating roads and tracks at Whitelee to ensure the peat moor land was protected.

There are signs that the important role of our industry is being recognised and in the “new industrial activism” outlined by Lord Mandelson earlier this year, low carbon goods and services were described as “the key development industries that can help the UK emerge from the recession”. And it's encouraging when UK Ministers refer to “mobilising every bit of expertise and ingenuity that Britain has to offer to move to a low carbon economy and secure economic recovery and growth for the UK.” Good sentiments but we need action to support this and ultimately capital projects at internationally attractive rates of return are the key.

Ladies and gentlemen, the tremendous issues of repowering and rewiring the UK to create a fit for purpose energy market are very real issues for us at ScottishPower and although a great deal of media coverage and political commentary of our sector has focused on price and the associated social agenda, the key challenge facing the industry today is securing the required investment and creating sustainable employment against a backdrop of a global economic downturn.

I can of course understand why recently the focus has been on the redistributive agenda and ScottishPower, together with the other five major energy suppliers will continue to back the Governments social programme.

However we need to move on.

Ensuring investment capital is maintained and doesn't escape the UK's shores requires proactive Government action working in partnership with industry and the regulator to create a policy framework that enables and encourages investment. We also need a more constructive dialogue with the public about the consequences and opportunities of such significant investment.

Addressing these truly big strategic issues of the current investment climate, £230billion of required capital for the UK, the regulated returns under DPCR5, the environmental agenda, security of supply, CCS, employment - requires a coherent energy system that can effectively meet our future energy needs delivering secure, affordable energy supplies whilst cutting carbon emissions. Companies commercial interests must then be successfully aligned to this credible energy path.

So our industry has changed dramatically. The market has changed, society's agenda has changed with environmental issues now very much at the forefront, capital markets have undergone a paradigm shift. We as energy companies have moved on and now is the opportunity for policy makers, industry watchers and regulators to show they have joined us from the 1990's efficiency squeezing mindset - where an essential marginal increase in the rate of return can dominate negotiations.

Of course dynamic markets, with competition between companies and technologies, will remain at the centre of our energy system but given the scale of the challenge, we need boldness and practical vision. We also need regulatory stability going forward if potential investors are not to be deterred from investing for the longer term. It's essential we remove, as much as possible, any uncertainty that can undermine the economics of investment.

The race is on and Barack Obama fired the starting gun earlier this year and America is now auditioning as the world leader on climate change and has indicated to every energy investor that it's now the place to do business. The credit crisis has reduced the availability of capital and most utilities have the option to deploy capital across their pan-European or trans Atlantic portfolios. Most of the major energy companies are analysing their options for what will need to be the largest wave of electricity generation and network investment for several decades. By early 2011, many of the commercial decisions will have to be taken. If the UK wants to provide global leadership, now is the time to convert talk into action.

So how does our story end?

The UK could be at the forefront of one of the most fundamental changes in the world's economy but it will not happen if we take a half hearted approach. Other countries are moving ahead with carbon capture and storage and new smart grid and smart metering technologies, we can't stand by and watch these opportunities disappear.

We could see an outcome to our 5 year distribution price control review which really kicks starts the necessary investment in infrastructure and job creation...or we will continue to sweat aging networks which are not fit for purpose in the belief it is saving money. We could see a North Sea carbon storage industry kick started by 2014 with Scotland as its hub or it could pass us by.

The story could end either way.

Or as in the past, when Britain has squandered opportunities to command a lead in new energy sources we could muddle through with a reactionary and piecemeal series of actions

that is the opposite to the bold and decisive strategy that we badly need. Let's not forget mastery of nuclear power was passed to France. Germany and Denmark have an unassailable position in wind and solar energy.

Never has it been more important, to address these truly big strategic issues and shape the UK's energy landscape for future generations.

Thank-you.

ENDS.