Adam Smith Institute– Overcoming Strategic Challenges for UK Utilities

Speech by Sam Laidlaw 17 March 2009



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Good morning. A very great pleasure to be invited back this year.

It has been a remarkable year. Businesses have gone from a position where capital was abundant and most economies were still facing up to the challenges of global growth and soaring commodity prices to one of global recession and the collapse of commodity prices and asset values. Some companies are now unable to access equity to grow their businesses nor can they easily obtain debt finance from banks to fund their infrastructure investments. Companies across the supply chain are suffering from the restriction of credit availability making it more difficult for them to manage their business through the downturn.

A month does not go by without another bank bailout – so that some of our oldest financial institutions are now supported by the State. This has led to a deep questioning as to the efficacy of free markets by politicians and commentators alike. The energy sector has not been immune from this level of criticism with calls last year for windfall taxes and other market interventions.

So against this onslaught it might be worth recalling what Adam Smith would have said about all of this. In his first book, the "Theory of Moral Sentiments", Adam Smith reminded us that of all virtues prudence is the most helpful to the individual. Many would have done well over the last few years to head this advice. Second, in his "Wealth of Nations", in describing the relationship between Government and the Private Sector Smith observed:

"The statesman who should attempt to direct private people in what manner they ought to employ their capitals, would not only load himself with a most unnecessary attention, but assume an authority which could safely be trusted, not only to no single person, but to no council or senate whatever, and which would nowhere be so dangerous as in the hands of a many who had folly and presumption enough to fancy himself fit to exercise it."

It is worth reviewing how our energy markets have fared and what if any changes are required to ensure that they continue to deliver reliable, affordable and competitive sources of energy for our customers.

To this end I will look at

- the continuing challenges for the UK gas market in moving from self sufficiency to import dependency
- the major investments that need to be delivered in large part by environmental considerations
- and the economic and regulatory framework required to meet these challenges.

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Those of you with a sharp eye will recall a similar slide to this one last year showing the widening gulf between UKCS production and demand.

The difference shown this time round is that forecasts of demand are down considerably but equally it is likely that lower levels of investment, which we are already starting to see, will reduce production forecasts.

Our initial analysis indicates that underlying demand for gas, excluding that required for power, is down some 6% on last year. Much of this demand reduction is of course in the heavy industrial sector so that for a business such as Centrica, whose customers are primarily residential and SME, the impact is more muted. More severe weather patterns may indeed offset any underlying trend.

Oil and Gas UK recently noted that capital investment is expected to decline rapidly over the next eighteen months and could halve in 2010. This will clearly put downward pressure on UK gas production.



All of this means that the world's third largest gas market is also the world's fastest growing import market. We expect to see imports more than doubling to 75% by 2015 from 36% last year.

So against this background UK gas prices and by extension electricity prices will increasingly be set by international gas markets.

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At the beginning of last year with very strong Asian demand for Liquefied Natural Gas and Europeans placing gas in storage in anticipation of further price rises, UK wholesale gas prices moved from 50p/therm in early 2008 to a high of over \pounds 1/therm. As the recession has reduced oil prices and industrial demand, spot prices have started to come down to a level of 30 pence providing some respite. However,

forward prices for wholesale gas next winter are still 50 pence per therm, which is 67% higher than it is today, indicating continued uncertainty about the supply picture next winter.

It is not just outturn prices that have been volatile. It is also the forward curve. For example, if we had been buying gas for delivery today last July, the wholesale prices would have been 95p/th rather than a current spot price at around a third of this level.

This rollercoaster, combined with suppliers' need to buy gas forward to ensure secure supplies for their customers and differing hedging strategies employed, as well as differing generation fleets, have meant that there is no simple relationship between prevailing wholesale prices and suppliers' actual gas costs. Suppliers will still have gas in their portfolio bought at earlier, much higher prices.

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Ofgem's recent quarterly report has illustrated the complexity of the problem but ultimately the true tests as to whether the market is operating effectively are: Is there healthy competitive switching, do margins reflect a reasonable return for the risks inherent in the business, and does the end result produce gas prices for our customers that compare favourably with our European counterparts.

Switching remains at one of the highest rates in the world, retail margins remain modest by any measure and retail prices remain the lowest in Europe.

One area that still deserves attention is the need to protect the most vulnerable customers in our society, not necessarily the broad segment who now fall in the category of 'fuel poor' but the truly vulnerable. Companies alone can not solve this problem, Government policy has a role to play here and the recent expansion of the CERT programme is well targeted at encouraging energy efficiency for an aged housing stock.

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The liberalised UK market has also responded well to import dependence with a diverse range of import projects. Over 75 Billion Cubic Meters (BCM) pa of new import capacity has been commissioned recently. A further 16 BCM pa is expected on-stream in 2009. Total import capacity in 2009 will be around 120 BCM pa, above UK annual demand. So in just a few years the UK has built the capability to import as much as the North Sea produced at its peak.

But the addition of infrastructure alone is insufficient.

LNG cargoes have not always been attracted to the UK market and with a European market that has yet to fully liberalise, pipeline flows of gas have frequently been from the UK to the continent rather than into the UK.

For example, during the recent Russia-Ukraine gas crisis Rough storage was depleting at maximum capacity and the interconnector was exporting to Europe. Whilst this might be expected in a liberalised market we do not have anything like the same reciprocal access to



Continental energy when market conditions are relatively tight. So we remain exposed to periods of exceptionally high UK wholesale gas prices such as in the 2005/6 winter.

The UK cannot wait for the continent to catch up with the UK's lead in liberalised markets. The UK needs more storage now to deal with its increased vulnerability.

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Gas storage developments in the UK have been painfully slow in coming to the market; the facts speak for themselves. Since the conversion of the Rough offshore field in 1983 there have been just four new gas storage projects; Hornsea, Humbly Grove, Hatfield Moor and Hole House Farm. All of these are relatively small onshore facilities.

•Centrica last week announced the commencement of a much larger offshore project for which engineering has commenced but clarification of the fiscal regime will be needed before this can move into full construction.

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Increasing import dependence has also meant that we have come full circle when it comes to LNG. 50 years ago British Gas was a trailblazer with LNG at Canvey Island. In November 2008 we commissioned our first cargo at the Isle of Grain and brought in a cargo of some 44 times the size of Methane Pioneer.

The current market conditions driven in large part by the softening of Asian and US demand are likely to mean that the UK will attract LNG cargoes. However, the absence of long term LNG contracts tied to the UK market means that we will not be able to rely on imports in times of tight global markets.

Additional destination specific gas contracts to replace our North Sea production are essential for security of supply.

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Power faces an altogether different set of challenges to gas. According to Ernst & Young the UK needs to invest £234bn by 2025 to avoid an energy crunch, around £165bn of this on Power. The UK government estimates that renewables investment alone by 2020 could be £100bn.

These levels of investment clearly require the necessary price signals for both electricity and carbon and an overall supportive investment climate.

Calls for windfall taxes and other non-market interventions do not help bring forward this investment.

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Ageing plant and environmental requirements will lead to an acceleration of closures. But significant new investments are signalled by the market – 24GW is expected by 2015 alone.

This suggests that, subject to financing constraints, the market should deliver in terms of overall capacity. The concern is whether in the absence of a strong carbon price the capacity additions will be sufficiently low carbon; or indeed whether the political determination to close down highly polluting coal and oil stations survives the stresses of narrow capacity margins.

A key enabler for such new low carbon investments is of course an effective EU emissions trading scheme and a robust carbon price which will also be essential if the UK is to meet its tough renewable energy targets.

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The costs of building offshore wind have risen sharply to around $\pounds 3m/MW$ currently – due partly to supply chain tightness, raw materials costs, but also shortage of debt financing and widening of credit spreads. This makes the economics difficult – new offshore wind projects face hurdles.



We need to see costs fall and/or an increase in returns to offshore developers under the ROC regime.

Continuing investment delays will damage the supply chain as UK order books are replaced by overseas orders making the achievement of the UK's renewables targets increasingly difficult.

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So much for the supply side but there is much to do on the demand side as well to meet the challenge of Climate Change. Energy supply businesses are going to have to move away from the business of selling pure energy to one of selling energy efficiency advice and services. Altering the behaviour of energy consumers is essential if we are to decarbonise the economy.

Two key elements of this future will involve smart meters and micro-generation.

Subject to confirmation from the government as to how it expects industry to deliver an accelerated deployment of smart meters by 2020, we expect smart meters to be the key driver of consumer efficiency. They will enable two-way real-time communications between the supplier and customer. The introduction of time-differentiated rates alone can deliver anything from 2-12% reduction in consumer demand.

Smart meters will help us to prepare for the introduction of smart grids as well as enabling the deployment of micro-generation and other home services.

The result of the drive to gas-fired central heating in the 70s was good for clean air, good for Britain's economy and (conveniently) good for Britain's carbon footprint.

It also demonstrated that transformational change can happen through adoption by millions of customers rather than purely through mega- generation projects.

There are lots of exciting technologies that could be deployed in their millions. Micro-generation is electricity AND heat AND combined heat and power.

Familiar maybe to many people in this room but not to our customers.

It is not possible to predict at this early stage in that journey what technologies will be adopted on a large scale. However, it is clear that there will be an increasing number of opportunities in this new energy services world, for new and innovative energy services providers.

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So where does all of this leave us?

I will start off by restating my observations from last year. Despite the huge turmoil we have seen in commodity and credit markets, open energy markets in the UK have and continue to deliver.

But the world has changed, access to capital has continued to tighten and the UK's import dependency is continuing to increase. There are therefore three elements of the framework that are crucial.

The first is to enable new gas storage investment to proceed but this will require the government to deliver a clear, supportive regime.

The second is to look again at the banded ROC regime as offshore wind is at risk in the current environment. An enhanced regime of two times would help the UK meet its renewables targets.

Third we need a framework that continues to encourage energy efficiency both for Industrial and Commercial customers. Going forward this will require a framework that encourages smart meters and enables the industry to increasingly sell energy efficiency services, not just energy.



It is vital that government and industry continue to work closely together within the framework of a stable liberalised market if we are to meet the even greater challenges than last year that are posed by both security of supply and climate change.

