Securing Reliable Energy Supplies for the Future

Adam Smith Institute

Sam Laidlaw, CEO, Centrica plc

Published 10 March 2008

Good morning. It is a very great pleasure to be here this morning before such a distinguished audience.

The title of my speech 'Securing Reliable Energy Supplies' is of vital importance to us all and much is changing.

Only five years ago the landscape was very different to the one we are all coming to terms with now.

Wholesale gas markets were reasonably stable and benign, security of supply was a remote concern, shortage of supply was unthinkable with the UK self sufficient in cheap gas and exporting its excess to the continent, nuclear power was untouchable and green was still a colour not a way of life.

On the European front, the UK had led the way in market liberalisation – dismantling the integrated gas and electricity state monopolies into independent and commercial entities to create real competition and consumer choice – all in the belief that its counterparts in Europe would follow.

Much has changed. The landscape, in Europe and globally is undergoing enormous change. It is characterised by:

- High energy prices driven in part by China and India's prolific growth but also by the depletion of much of the relatively easy to access indigenous resource base. This raises issues about security of supply as well as commodity price inflation.
- A growing concern about climate change and the fact that it is now beyond doubt that man made CO2 emissions are a major contributor.
- An evolving European carbon emission trading scheme which some would argue failed in Phase 1 and which is still developing with the welcome recent proposals for a move to full auctioning of carbon allowances at least for the power sector beyond 2012.
- The impending retirement of large parts of Europe's power generation fleet and its replacement. Within this area is the role and timing of new nuclear, coal, carbon capture and storage as well as challenging European renewable energy targets

Today, I will consider the need to respond to increased dependency on gas imports and the implications for the UK market. This will include a look at the supply picture including how the market is responding, the impact on retail prices, the future investment required and the economic and political framework that is needed to meet this challenge.

Many of you will be aware of the turn around in the UK's fortunes with self sufficiency rapidly replaced by increasing import dependency. By 2015, the UK will be importing as much gas as it produced in 2007.

So how has the liberalised UK market responded to this unprecedented challenge? Well not surprisingly each player has taken a slightly different approach.

24 companies from 11 countries are currently investing over £10bn in UK energy markets. New capacity has taken the form of new pipelines (e.g. Langeled bringing nearly a quarter of UK peak requirements from Norway), enhancements to existing interconnectors with continental Europe (e.g. BBL and the Interconnector) and 'back to the future' with new LNG facilities built (at the Isle of Grain and Milford Haven).

This diversity is a testament to the success of the liberalised UK market with liquidity of the traded gas market at the National Balancing Point giving confidence and clear price signals to investors. Of course long term purchase contracts, normally at market prices, have been part of the picture. Centrica has entered into £12bn of gas contracts that have helped underpin some of these new import projects.

Importantly though new capacity does not necessarily translate into the same volumes of gas flowing into the UK.

LNG is becoming a global gas market with increasing arbitrage opportunities between the European, American and Asian markets – I shall return to this theme later in this discussion.

The addition of Langeled and the Tampen Link Spur to add to Vesterled has led to the UK being exposed to much greater producer arbitrage. Total and individual flows from these supply sources into the UK are highly variable and difficult to predict given Continental non-transparency. This has added a UK anxiety premium.

Winter 2005/6 was a salutary lesson that despite UK spot prices as high as 100 pence per therm we could not rely on European gas to flow into the UK. As recently as quarter four of 2007, Interconnector imports remained low despite high gas price differentials. This is in part caused by both physical and contractual congestion on the continent.

This last point is behind a tussle between the European Commission, that is vigorously pressing for competitive energy markets in the form of ownership unbundling, and some European Governments who are reluctant to accept a transition to more competitive markets.

Some may ask why does increased import dependency matter if we can get the gas and the market is responding. The answer is clear in this chart showing daily prices at NBP of wholesale gas in the UK in 2007. Prices in early 2007 fell to a low of 13 pence per therm, and then rose by 47 pence to a high of 60 pence per therm at the end of the year with huge intra day volatility.

This wholesale price volatility has an inevitable and profound effect on retail prices.

The net margins made by the retail supply business for the gas are at best a few pence per therm but the amplitude of the volatility of the wholesale price is over 40 pence per therm. What therefore really drives gas prices is not retail margins which have been consistently thin but wholesale price movements caused by technical or commercial supply constraints by producers or European shippers.

And it is not just gas prices that are impacted. Gas fired power generation is at the margin and therefore gas prices set power prices. Therefore when we have big moves upwards or downwards in the wholesale gas price it is inevitable that these will translate into moves in the power price.

Looking ahead, the supply constraints and volatility is compounded by the fact that the UK has relatively limited storage - we have around 12 winter days of gas storage compared to between 60 and 80 days in mainland Europe – which even with current planning reform proposals will take several years to improve upon.

The other big concern for us all is Climate Change. To achieve a low carbon world the most cost effective solution, which also helps security of supply is to increase energy efficiency and British Gas is at the forefront of this. But on the supply side renewables have a crucial role to play.

The EU Renewables Directive is committed to binding the UK to a 15% renewable energy target in 2020, which broadly translates to a renewable electricity target of around 40% (compared to about 5% renewable electricity now). If we can significantly increase the amount of renewable heat we produce – and I believe that we can – we should be able to bring this electricity target down somewhat.

The effect of all this renewables investment would be to drop the load factors for coal and gas plants dramatically – gas fuel use could over time drop 30 to 40% from 2007 levels. But this renewable programme will require massive investment and given the cost of offshore wind very substantial government support is needed.

I would now like to return to LNG. LNG demand and import infrastructure is rising. LNG will represent some 23% of UK supply capacity in 2009. It could represent 10% of EU and US gas demand by 2015. Supply sources are still much more diverse than UK pipeline options with 13 countries currently exporting and they may be joined by ten more.

So as diversity is key to security of supply, rightly LNG will have an increasingly important role. Presently the UK and Europe are competing with Asia and North America for limited LNG supplies.

In a tight market spot cargoes are being attracted to the highest priced market (which is currently Asia) and UK LNG capacity has often been left idle this winter.

Going forward as additional LNG production comes on stream and an increasing number of players enter the market a diversity of strategies will be pursued. Opportunities exist from Egypt, Oman, Trinidad & Tobago, Libya, Algeria and Iran.

However with some of these territories come significant political risks. UK companies are competing for this LNG against the National Oil Companies of Asia, or even the National Champions of Europe, the latter of which can often use monopoly rent made in their home market to bring the gas to them. Similarly, as they often lack an independent regulator, they can re-configure their market structure at short notice to attract the gas.

For example, at a time of tight gas supply in winter 05/06, Spain introduced a market distortion in its favour by amending its energy regime to guarantee that LNG cargoes were diverted to its markets, potentially disadvantaging UK security of supply and consumers.

Finally, the UK may find that whilst it has over the past decade created gas on gas competition and created a more efficient pricing structure, this may be replaced by premium pricing to attract cargoes.

So this greater global opportunity is not without its risks. A recent example of this is illustrated by Russia again threatening to close off supplies to its neighbours and seeking to expand its European influence. This has awakened concerns on both dependencies on gas from East of Europe and ownership of national energy companies in particular. The risk premium has gone up.

One very important longer term contributor to energy security in a low carbon world is clearly new nuclear. With the retirement of much of our existing nuclear generation fleet over the next 15 years, the urgent replacement of that fleet in which my own company intends to be actively involved is of paramount importance. The government's legislative initiatives and announcements to facilitate this are welcome but it will take continued strong support to turn these ambitious plans into reality.

In Europe the liberalisation agenda moves slowly. Energy suppliers continue to reinforce their national champion status through reluctance to embrace competition and liberalisation at home, whilst strengthening their financial critical mass and consolidating their position abroad. Often these companies have an artificially low cost of capital and appear to make investment for strategic reasons bolstered by very strong support and activism from their host Government.

In the UK we have an ambivalent attitude to Government intervention both abroad and at home. In terms of foreign policy in last year's Energy White Paper our then Prime Minister said, and I quote, "Over ten years I have watched energy policy go from being a relatively quiet backwater to something taking on a strategic importance that could be as crucial to our country's future as defence" and yet despite this energy security has not made it as one of the key priorities of the Foreign Office.

Equally in domestic policy whilst recognising that the rules of the market must prevail there is a worrying tendency towards short-term fiscal interventions or now even the suggestion of price controls for certain groups of customers. Such intervention is contrary to the spirit of liberalised markets and could undermine investor confidence and risk jeopardising construction of the critical generation and gas supply infrastructure we need.

So where does all of this leave us?

Firstly – we must pursue open markets and resist protectionism and short term interventionism. The UK government and the European Commission deserve credit for pushing forward the energy market liberalisation Directives. Effective unbundling, transparency of data and strong and independent regulators are key to this Third Package of measures. There is no appetite for a fourth package so we can not afford to miss this opportunity to get it right.

Increasingly, much of the gas that we need will come from Eastern Europe, Russian and the Caspian and getting access to European networks is critical.

Domestically the government needs to deal with the long term causes of price volatility, the wholesale price. Rather than seeking to intervene in the highly competitive retail market in a misguided attempt to curb the symptoms of rising retail prices.

Much of the recent volatility in the gas market stems from a liquid, competitive UK market which has strong interconnectivity with a highly illiquid, still uncompetitive European structure.

Until we see more liberalisation, Europe will continue to use the UK as an opportunistic source of top-up gas at short notice - but may not be willing to provide gas to the UK when we most need it. We are becoming the "gas lender of last resort" and Government must be alert to the very real threats that this poses to the UK economy and prices.

Though we are seeing progress and liberalisation in some Continental markets, it is not acceptable that after 5 years of so-called liberalisation in Europe, 20 million UK consumers are supplied by French and German companies, yet not a single French or German domestic consumer is supplied by a UK supplier.

Finally – we must all stay focussed on the energy challenge. Energy is not a fashion item to move up and down the political or business agenda. There is no short term fix.

Massive investment is required over a sustained period of at least 2 decades.

Energy markets and Government policy no longer operate separately and they are now inextricably entwined.

It is vital that both parties work even more closely together within the framework of a stable liberalised market if we are to meet the enormous challenges that climate change and security of supply pose.