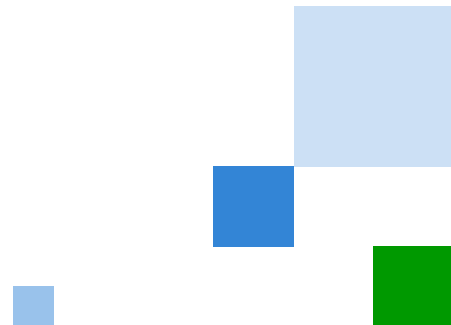


Security of Supply Issues

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Summer 2007 Looking Back

- There was no summer.
- The only incident in the electricity sector was caused not by the predicted extreme heat but by rain.
- The gas market was confused and has struggled with the lack of transparency concerning Norwegian gas deliveries.
- Most players went short, expecting a glut of gas and so reducing prices, but were disappointed to see restricted supplies hold prices up.
- Carbon was predictably a non event.
- I spent most of my Scottish holiday paddling, even though I was nowhere near the sea.

❖ **The less said about the Summer of 2007 the better.**

Winter 2007/08 Looking Forward

- We are used to Winters of Two Halves in the gas market where supply and demand in Q4 drives storage draw down and so sets the scene for Q1.
- This time the electricity market will definitely see a Winter of Two Halves
 - Phase 2 of the EU Emissions Trading System starts on 1 January 2008 and will produce carbon signals that are sufficiently high to influence plant dispatch.
 - The Large Combustion Plant Directive also kicks in on 1 January 2008 some of the opted in plant will not have full FGD fitted and operating by the deadline.
 - LCPD will also bring with it an Hours Tax and a Lack of Stacks Tax which will constrain the natural flexibility of the opted out coal plant.
- Very high international coal prices (+ carbon) could push coal to mid-merit and drive regular switching between coal and CCGTs as the marginal plant.
- ❖ There are strong forecast margins in both gas and electricity for the coming winter but the rules will change at half time, restricting players' flexibility in the second half.

Future Security of Supply Issues

Environmental Legislation

- 1 January 2008 is a watershed as all large combustion plants (e.g. coal and oil-fired power stations) have to comply with LCPD and Phase 2 of EU ETS starts
- The next big watershed is not for another 5 years at which point Phase 3 of EU ETS starts and opted out coal plant will be closed or running on its last few Hours.
- However, this does not mean that we can relax for 5 years.
 - The LCPD Hours Tax will lead to plant being withdrawn for long periods to save the Hours for a rainier day (hopefully in the winter).
 - The LCPD Lack of Stacks Tax will cause multi-unit stations to be offered and dispatched as a block, making operational system security more difficult to deliver.
 - There are other potential constraints lurking in the wings. For example, the Water Framework Directive (River Basin Management Plans) could make a very big splash or be a damp squib.
- ❖ **There is no room for complacency, security of supply can be rapidly eroded by intended or unintended consequences of environmental regulation**

Future Security of Supply Issues

Market Design

- Does the relative stability and projected strong margins over the next few years present a golden opportunity to introduce changes to the rules under which energy markets and energy infrastructure operates? We currently have
 - Cash Out Review
 - Transmission Access Review
 - SO Incentive Scheme
- I would suggest that the basic operation of the underlying energy markets has stood up extremely well under the varied and stressful conditions of the last few years. It may not be perfect but there is no common view of perfection and, even if there was, it is likely to be unobtainable.
- However, the last major build programme was undertaken under very different rules. So the ability of the current rules and regulations to facilitate the right investments at the right time in the right locations is unproven. An efficient programme of main plant replacement is fundamental to long-term security of supply and must not be prejudiced by other policy objectives or special pleading.
- ❖ **Massive new investment is needed over the coming years. The primary focus must be on making sure that the market structures correctly signal what, where and when to build.**

Future Security of Supply Issues

Growth of Intermittent Renewables

- Will the planned rapid growth in wind generation lead to a reduction in supply security?
 - We would all recognise that wind farms cannot be treated as fully firm when assessing generation margins. Their purpose is to displace more carbon-intensive energy production not capacity.
 - As the proportion of wind energy grows it will require greater flexibility from the rest of the generating plant at a time when flexible plant is likely to be closing. This means:
 - ensuring that the costs of intermittency are fully borne by those who cause them. Wind is supported through the ROCs mechanism and should not receive any covert support that weakens market signals;
 - ensuring that the benefits of flexibility are fully rewarded without dampening the very signals that will encourage such plant to be retained or built
- ❖ **Distorting market signals to help achieve other policy objectives will threaten the efficient functioning of markets and so will endanger security of supply.**

Future Security of Supply Issues

Transparency for Gas Imports

- There is a clear link between lack of transparency and prices in the forward market.
- Forward gas prices should account for the 'genuine' supply/demand uncertainties of weather, field reliability, pipeline maintenance etc. They should also take account of the flexibility to move gas between markets.
- In order for markets to correctly price all these factors, there needs to be transparency about the capability and performance of gas fields, pipelines and storage. There also needs to be transparency of contractual arrangements that could cause gas to flow in ways that appear contradictory to the market signals.
- The haar (North Sea fog) that envelopes Norwegian gas supplies has now become a major driver of price and volatility, as we have experienced this summer. It appears that imported gas (rather than LNG) has become the swing supply to the UK and so has a major influence on price. Having made some progress on transparency for UKCS, urgent action is needed for imports.
- ❖ **Mis-pricing of the forward gas market, due to lack of transparency, leads to mis-pricing of electricity and to investment uncertainty in both markets.**