

LIVING WITH THE INEVITABLE

The UK's Dependency on Imported Gas

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Can we rely on imported gas for our energy into the 21st Century? – the answer is yes we have no option.

By 2015, the UK will be importing as much gas as it produced in 2007 and gas will account for about 70% of UK power generation compared with a zero contribution in 1990.

To find out why we are where we are it's useful to track back to the beginning of the so called "dash for gas". It is rumoured that sometime in the 1980's, Ken Lay – late chairman and CEO of Enron – received a telephone call from Margaret Thatcher and the call went something like this – come and build us a major gas power plant on Teesside – this will produce clean and cheaper electricity, while at the same time help us reduce the political power of the miners union.

MA was given the job at the time of helping Enron and the gas industry argue the economic case for gas power viz coal and nuclear, and what was clear then and is true now - is that the political agenda (currently headed by climate change) is always and everywhere as important, if not more important, than market economics. After all, we never seem to fret too much about our dependency on imported cars and TV sets!

So we are dependent on imported gas but we are not alone. Of the 33 nations in Europe as a whole only five are self-sufficient or net exporters of energy, whilst nine import more than 95% of their requirements. It is estimated that by 2020, the EU will be 75% dependent on imported gas– in particular from Russia, Norway and to a lesser extent LNG shipments from North Africa and the Middle East.

On the plus side, it is estimated that there is some 100 years of annual EU gas consumption in reserves within economic distance of the EU. But before we get complacent we need to remember that with worldwide demand rising sharply (particularly in China) the long term supply/demand balance may not be so favourable.

So what are the risks of import dependency? Are they real or imaginary and can they be managed and if so who should be doing the managing?

These are two separate but related issues – **First** will the gas supply be cut off because of politics and terrorism and **Second** will disruption in supply (for political or commercial reasons) combined with rising demand result in high and volatile gas prices.

Let's have a brief look at these risks:

1. Political Action

The insurance industry estimates that up to 50% of the UK gas capacity could be at risk from sabotage every 8 years. We are all aware of the risk from terrorism. But as far as the politics of gas producers are concerned, in particular Russia, they need to sell to the EU just as much as we need to buy from them. And, looking at the broader economic picture, more Russian gas revenue finances more internal growth and hopefully more EU exports.

2. Transit Capacity

25% of gas is lost to the consumer by transporting it across thousands of kilometres, say experts. Geological risks to the transit infrastructure can be managed but not eliminated. Of more concern is that gas exporters have not been investing enough in infrastructure – a particular problem in Russia where GAZPROM apparently only operates on annual budgets which makes planning difficult, if not impossible.

3. Market Inefficiency

The EU Commission has rightly concluded that the EU internal market for gas is not competitive. The main reasons are (a) the existence of inflexible long term contracts between producers, importers and distributors and (b) the integration of importation and distribution within single dominant commercial or state-owned companies and (c) the indexation of wholesale oil and gas prices. The net result is that gas flows and prices do not always reflect actual supply and demand.

4. Price Volatility

In principle, gas will and should flow to where the price is highest. So LNG ships sit in mid Atlantic or in the Channel waiting for instructions as to where to offload. Prompted by rising oil and to some extent CO₂ prices, gas prices have been rising and volatile but, as I said, in the UK, these price signals have worked reasonably well to stimulate new investment in pipelines and storage.

Prices will continue to rise in the wake of rising global demand for fossil fuels and the prospect of a firmer price for carbon in Europe – the market will remain volatile but the prospect of more liquid markets in the EU could create more opportunities for hedging.

So if they cannot be eliminated what if anything in policy terms can and should be done to mitigate the risks:

- the EU as a whole needs a coherent strategy in its dealings with Russia. In energy, both must recognise their mutual commercial dependency and agree a long term arrangement, which secures improvements in the gas network in exchange for some access to downstream markets.

- the EU gas market can only be liberalised with more regulation to remove the fragmentation in regional markets for gas and increase competitive access to both gas and transit capacity.

This will require EU -wide market rules rather than a reliance on voluntary action by individual operators or national regulators, many of which are either subservient to national political interests or do not have the requisite legal authority.

However, it will take a long time to unwind long term contracts and de-couple the link between oil and gas prices. Also the process of internal market liberalisation will not reduce gas demand or create new gas sources. So liberalisation itself is unlikely to result in lower or less volatile gas prices.

- finally and probably most important of all it needs to be recognised that the future diversity of the UK/EU fuel mix and the future of the EU carbon price are interlinked.

In the short term, the likely prospect of a firmer price for CO₂ in Phase 2/3 of the EU ETS will drive up demand for gas as an alternative to coal and higher gas prices will drive higher power and CO₂ prices. Furthermore unrealistic targets and subsidies for intermittent renewable energy could increase energy price volatility.

In the medium/longer term, there is a risk that the politically ambition target for renewables could depress the CO₂ price to a level at which could undermine investment in clean coal and nuclear – both of which would play a significant role in reducing our dependency on imported gas.

So for now our gas dependency looks set to continue – and maybe we will need to await the commercialisation of nuclear fusion in 30 years time before we see any major shift in the UK fuel mix.

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