Global LNG: A World of Change

Gastech

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As we all know, LNG is an industry undergoing quite fundamental changes, against a backdrop of an environmental and geopolitical landscape that is itself experiencing significant evolution. The road ahead looks very different from the road already traveled:

- Old and new orders are rebalancing;
- As are costs and prices; and
- Margins are migrating as the balance of power shifts.

As I survey our industry today, I get a real sense that this is a critical juncture in our development. A transition period, if you will – although in saying this, I am conscious that in the last 15 years of speaking on the subject, I have rarely said anything different - but the choices we make today will significantly influence the type of business we will become tomorrow.

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As I give you BG's perspective, which is rooted in our contemporary Atlantic Basin experience of meeting long-term contract demands as well as our experience at the flexible 'outer-margin' of the business, I will speculate on this future – recognising that it is becoming increasingly difficult to predict.

The evolution of the industry

Over its first 35 years, the LNG industry showed steady but unspectacular growth. It had a relatively high cost base, which ensured that it remained a regional and niche fuel.

Cost reduction efforts in the early 1990s managed to extend the market reach of LNG and increase its competitiveness. In particular this allowed the world's largest natural gas market, the US, to become a viable engine of growth for the industry.

We are now starting to see its impact - in 2007 we saw record US LNG imports of over 16 million tonnes[1]. But, with over 70 million tonnes contracted into the US by 2012, this is just the beginning of what should be an enormous growth period for this rapidly emerging market.

When the current wave of US LNG import contracts were signed by BG and others in the early to mid part of this decade, they not only underpinned this growth spurt, but also foreshadowed the fundamental structural change that is taking place in our industry today.

These deals have laid the foundations for evolution from a largely regional, bilateral trade structure to a more globally connected, flexible and integrated market.

Since then, we have seen a rapid increase in commodity prices. This has created a further layer of uncertainty for the industry as LNG not only begins to drive globalisation of natural gas, but also starts to experience the effects of it in our high-priced, supply-tight world.

These factors have pushed LNG into becoming a higher stakes game and it's emerging on an increasing number of national agendas – ironically on both the supply and demand side. And as the LNG industry has become more interconnected, it has become more difficult to predict just how the global system will eventually function.

We've impacted the changing nature of the LNG industry, both from the perspective of our US import locations at Lake Charles and Elba Island, which were responsible for approximately 55% of all US imports last year[2], and from our cargo diversions, which, since 2006, have supplied 14 of the total of 17 countries worldwide that import LNG today – underscoring the industry's increasing flexibility.

So it is clear that at the flexible outer margin of the industry at least, we are seeing trade following price. 2007 throughputs at our Lake Charles terminal in Louisiana are testament. In the second quarter of 2007, with demand (and therefore marginal price) moderated in Asia and Europe by relatively full storage inventories, we saw 48 cargoes imported, effectively the terminal's maximum capacity.

However, following the earthquake in Japan in July which shut down significant nuclear capacity, we saw LNG redirected to the Far East. As the direct result of this, Lake Charles imported only one cargo in the fourth quarter.

[1] Source: U.S. Department of Energy (DOE) – February 2008.

[2] Source: U.S. Department of Energy (DOE) – February 2008.

The future

So in this increasingly complex world let me share our view on the three fundamentals that we believe in combination will define and catalyse our industry:

- Price;
- Market efficiency; and
- Volatility.

Price

At the moment the pendulum has clearly swung towards the sellers. LNG demand remains robust – driven by underlying economic growth, the entrance of new players plus security of supply and environmental concerns.

Our environmental advantage still holds, as the world's increasing focus on climate change clearly favours natural gas.

On the supply side, we are seeing cost escalation, constraints in construction capacity and domestic priorities all slowing the arrival of new LNG. This supply-demand discrepancy has led to increasing prices for both term and spot volumes.

Good for the sellers – certainly. Good for the industry – less certain. The dash for gas that we have experienced over the past two decades was driven largely by the economics of the combined cycle gas turbine which at previous oil prices made natural gas the environmental and economic fuel of choice.

Our environmental advantage still holds, as the world's increasing focus on climate change clearly favours natural gas - the most environmentally friendly of all fossil fuels. However, as we follow oil prices upwards, in their ever dizzying ascent, the economic element of our "most-favored fuel" status for power generation becomes less certain.

The preferred status of gas is maintained by:

- Uncertainties around competing fuels;
- Uncertainty over whether carbon pricing will undermine coal as a competitor; and
- Uncertainty as to whether public opinion and capital costs will hamper a renaissance for nuclear power.

The status quo leaves natural gas as the near-term and unavoidable fuel 'fix' for power generation – but we should continue to watch longer-term demand signals closely to ensure that present price levels don't undermine our longer-term future.

Market efficiency

The extent to which supply is able to react efficiently to demand signals is what we mean by market efficiency. Our industry has been speculating for as long as I can remember about our evolution towards "commodity" status, and the development of a competitive marketplace for this commodity. So how are we doing?

Well, as the industry has evolved over the past few years, LNG has come to show many of the features of a commodity.

- LNG is globally fungible.
- As we have also noted increasing trade flexibility is allowing LNG, in some cases at least, to respond to price signals.
- We are seeing spare transport and import infrastructure emerge to enable this.
- And there is also an expectation that we will see increasing competition as the volume and number of holders of flexible LNG grows.

So far so good. However, despite LNG showing many of the characteristics of a commodity, we can see many inhibitors to our becoming a fully efficient and competitively traded global market. These include:

- Market and resource access;
- Infrastructure costs;
- Existing long-term agreements:
- Corporate business models;
- Capabilities; and
- Lack of price discovery.

And despite our increasing flexibility, we lack true liquidity, we lack transparent market indices and we lack direct trade instruments.

Perhaps most critically, we also lack – for the foreseeable future at least – excess production capacity which might allow the industry to move towards a truly traded, fungible market.

Volatility

At BG, we have indicated for some time that, even if there is an evolution towards greater global price convergence, we are firm believers that external factors will continue to result in short-term price dislocations between markets.

And that these will continue to create a base-level value for the flexible marketer.

Our belief – put at its simplest terms – is that "stuff happens" and prices will react – last July's earthquake was but just one example.

Beyond this though, there is another key question – and that is whether LNG will dampen volatility or whether it will in fact increase it.

On the one hand an increasing amount of flexible volume should, over time, act to smooth the price volatility of individual markets.

However, on the other, the US market is about to take up the burden of balancing seasonal demand for the rest of the globe – no small task – and I suspect that there will be periods when global volatility is transmitted to the NYMEX rather than the NYMEX smoothing global volatility.

Add to this the increasing number of national political agendas being layered onto the industry at present and I wonder whether we are seeing a system that may take longer to balance.

Conclusions
It is clear that the LNG industry is in a transition phase.

Widespread changes are under way resulting from the linkage of the US market to the global LNG trade and the changing geopolitical and commodity price environment.

Based on our experience of the industry we believe that the present trend towards globalisation is irreversible.

Whilst LNG is starting to exhibit many of the characteristics of a commodity – including fungibility, spare infrastructure and a direct response to market signals, there are also many inhibitors to the development of a transparent and fully efficient global marketplace.

Based on our experience of the industry we believe that the present trend towards globalisation is irreversible.

Indeed, the present context of high oil prices, supply-tightness makes the pace and extent of evolution somewhat uncertain, as I hope my comments on price, market efficiency and volatility have illustrated.

So what does this mean for our industry?

Well I think the winners will be those who remain flexible within this changing environment – on the one hand ensuring that they are well placed to capture value from the market dislocations that will inevitably continue to occur, but on the other hand also maintaining a robust base value proposition as the industry shows increasing commoditisation.

Indeed I suspect we are already at a point where the only form of sustainable long-term competitive advantage is cost leadership.

We believe LNG has come of age and, in reality, the future is all a matter of perspective. For some it is far away; for others it looms large, but uncertain - but for some the future may already be history.