

Building A Bridge To The Gas Future



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Until recently natural gas was oil's poor relation. If it was found far from a market, it was often stranded and left undeveloped. Today, it is a very different story. Natural gas is highly favored as a clean fossil fuel, especially for electricity generation in industrialized nations.

Global proven reserves are 5,501 Tcm with about 60 years of production at current utilization rates compared to 40 years for oil. The world could be consuming more natural gas than oil by 2030 and that would mean an even greater incremental growth in both gas supply and transportation than the industry has seen up to date, with nearly 25% of all natural gas produced now crossing an international border.

With the arrival of liquefied natural gas (LNG), the gas industry is now truly global and profitable. If oil was the "Prize" of yesterday, gas will surely be the "Prize" of tomorrow, but how oil companies capture the full value of this prize still remains to be seen.

High-risk elements continue in pursuing successful strategies in the global gas industry. Oil companies today are dealing with high gas prices in the U.S. and rising prices in Europe. Companies and nations are relying less on long-term gas contracts and becoming more reliant on spot and supply sales, whether via pipeline or LNG. Participants in spot markets, unable to predict future prices of gas, are now more exposed to price risk. Furthermore, as demand for gas is increasing, we are seeing the security of supply issue become more dominant.

In the case of the U.S. and Europe, where indigenous supply cannot keep up with demand, gas is being sourced from greater and greater distances, bringing together a mix of political, economic and technical risk. Access to LNG infrastructure is increasingly becoming an important issue in the U.S. where it is expected to grow from supplying 1.7% of natural gas consumption today to between 14% and 17% by 2025.

High demand markets like Japan and growth markets like China are already very LNG dependent. China is competing heavily for gas supplies as Beijing looks to boost the share of gas in the primary energy market from 2% today to 8% by 2010. Finally, with markets liberalizing and allowing greater access, we are seeing companies operating in circumstances which are new and constantly changing.

These challenges are well known and oil companies have been developing their gas and power strategies to meet them head on. Elements of such strategies include:

- Focusing on leveraging their upstream positions and global footprint to take advantage of gas growth which has

resulted in high levels of investment throughout the value chain.

- Developing strategic partnerships along the value chain and building up a portfolio of assets, including generating plants and transmission or distribution pipelines which has led many oil companies to gain valuable utility experience.
- Investing in gas trading which is central to the value of spot and supply contract gas and the business models they are developing.

These kinds of strategies are, however, generally focused on the upstream challenges of finding gas and delivering it. Accenture sees that gas markets are changing and that oil companies have structural advantages, assets and capabilities to enable them to take advantage of these changes. We see that it is only by building a vertically integrated gas business that an oil company will be able to take advantage of certain liberalizing markets.

Liberalization in many markets is fundamentally changing where the value in the gas chain will lie in the future and causing margin to migrate downstream. To take advantage of this margin migration, and to fully capture the value of their gas businesses, Accenture believes oil companies should be vertically integrating their gas business to secure load through the near perfect hedge — retail customers.

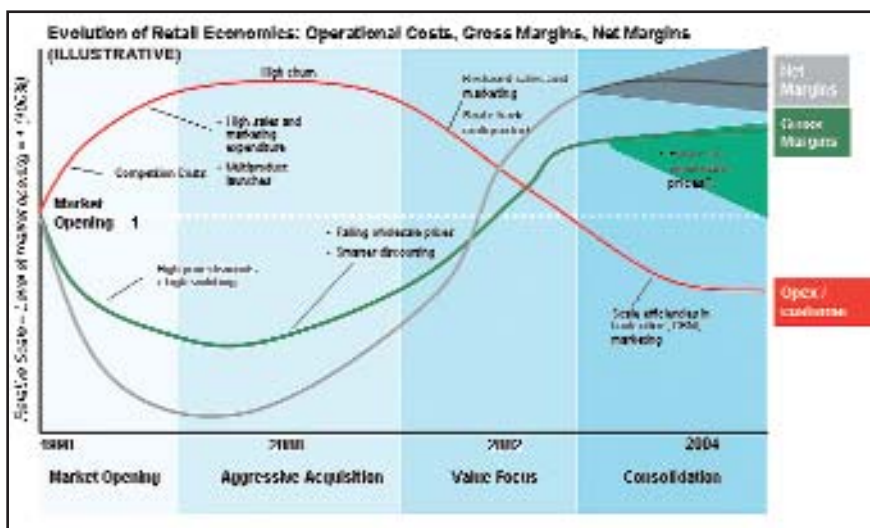
quently divested. But this is because the core value source, i.e., — the value to the upstream business — could not be realized. In most cases, the "stranded" gas source could not be matched to the demand. Key to capturing the value to the upstream business and exploiting an oil company's specific capability is the ability to be able to match the supply to the demand.

In short, Accenture sees several key advantages of a vertically integrated gas business:

1. The first centers on the capture of stranded gas assets. Where long-term gas contracts are not being renewed, a full-scale retail position provides a natural hedge against both the price and volume risk associated with shorter-term spot and supply sales. A retail position enables the business to accelerate gas production with the value primarily accruing to the upstream — a value which a stand-alone retail position will not achieve.

2. The second is that, in liberalizing markets, which most gas markets are today, value migrates down the value chain from the upstream to the downstream. By not playing fully in the downstream arena, a company is not realizing the full value of its gas reserves. By establishing a retail position they are minimizing the risk that competitive markets bring along with capturing market share away

Margin Migration in Liberalizing Markets



Advantages of Vertical Integration

Vertical integration in the natural gas business is not a new concept and there are a number of examples where retail positions have been acquired and subse-

from their competitors.

3. Finally, such a position would enable a company to capture incremental value through retail optimization. Organically grown businesses are able to achieve return on average capital employed

(ROACE) targets but generally not net income after tax (NIAT) targets and for that reason, growth tends to be slow. Integration will allow a company to aim to achieve both simultaneously.

Accenture is not suggesting that an oil company should build a stand-alone retail business or a highly competitive customer base. In fact, quite the contrary. The company should be looking to build a customer base which will be static to serve and which will have low switching. Such markets can be found in parts of Europe today and, in the future, in the U.S.

In Europe, where the market is rapidly liberalizing, our studies indicate that margins from production and wholesale are expected to fall by over 20% within the next five years, while retail margins will rise two-fold. Markets like the Netherlands have retail customers that are very attractive. This attractiveness is centered on the competitiveness of the market and its substantive retail customer load which makes a good outlet for North Sea gas producers. In time, Germany will also be an attractive market for vertical integration. Here, the attraction is in the high predictability and low switching of the customer base.

By contrast, in the U.S., a de-integrated model might make more sense today, with the liberalization of the gas markets stalling and large supply/demand imbalances evident. Many major oil companies already have hedging strategies in the U.S. through contracts with local distribution companies and retail marketers. Many are creating retail businesses to serve industrial/commercial and power generation customers.

In the future, however, the U.S. could be in a position where supply equals or exceeds demand (at least in certain regions) and liberalization is back on track. In the more competitive U.S. markets, which may be oversupplied, there could be a good opportunity to create a vertically integrated play of this kind.

There are other markets where vertical

integration would not make sense today. In Asia and Russia, the markets may be too immature for this kind of business. Here, while companies may be forced to invest in the downstream part of the value chain to enable the market to grow, the opportunity to capture the margin downstream to enable the monetization of the assets upstream will be both limited and risky.

Liberalizing markets are bringing with them new market and competitive structures. Whereas before a company had a partner or customer, now a company could have a competitor, depending on the liberalization model. An oil company could now be competing with, as well as supplying, its former customers. In such markets, many companies are unwilling to disturb the current market equilibrium and make the decision to compete with their own customers for retail market share.

We also believe that companies should not let their horizons be limited by gas customer bases. Additional synergies can be created by combining the gas retail base with power in order to create a wider vertical integration. The UK has shown the most marked trend toward vertical integration in utilities, with gas and power suppliers seeking to balance their portfolios with production and generation acquisitions and strategic contracts.

Building The Business?

Through the work Accenture has done with clients in this area, probably the most important prerequisite to building vertical integration in gas is the ability of an oil company to overcome the internal barriers which are resistant to the change of focus.

Why should a company make a downstream investment, which on a stand-alone basis barely makes sense, in order to achieve value that will accrue to the upstream part of the business? The natural tension between the traders and the consumer divisions tends to come to the fore, as the retail position is

seen as a threat to, rather than a complement, to the trading of natural gas.

Also, the physical ability to suddenly manage not tens of customers, but millions, is very demanding and requires a cultural change in the kind of vision the company has of itself and the business it is in. This vision to build the business must be strong, and built into that vision must be flexibility.

The measure of success of taking this kind of risk will be in the ability of an oil company to build a long-term, sustainable competitive position in both the upstream and downstream gas markets. Vertical integration will allow companies to capture margin migrating downstream in liberalizing markets to monetize gas upstream. Companies will be able to achieve both return on capital employed and net income targets simultaneously — impossible to do if they are just looking at stand-alone retail business.

Not only will companies be capturing margin further downstream to monetize gas upstream, but a company will be building both control and flexibility into a business which is moving its epicenter further away from their home ground. In the next few decades oil companies may be known as a gas companies. LNG is already a core part of their business. In some ways the global nature of LNG, which is increasingly bridging the gap between the U.S., European and Asian markets, could contribute to the success of the integrated retail position.

Finally, the opportunity to build the business really is out there. A company can form partnerships or alliances to gain access to the pipes and wires and the retail service capabilities. As yet, no one is building this business to take advantage of the next energy industry "Prize". **PE&GJ**

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