Storage tank at the Sakhalin 2 LNG liquefaction plant. Photo by: Michael Christopher Brown/Corbis

Interview Kathleen Eisbrenner

‘Europe has not quite been willing to pay up’

Among the international oil companies, Shell claims to be the world leader in LNG. According to Kathleen Eisbrenner, head of Shell’s global LNG business, the long-term future of LNG is bright, despite the current economic setback. But she does wonder: ‘Where is Europe in the LNG-spectrum?’

by Alex Forbes

For Shell, natural gas has become almost as important as oil. It accounts for 45% of Shell’s business, and, as chief executive Jeroen van der Veer has said, ‘we can see the day coming when we will produce more gas than oil’. Forecasts presented at the group’s recent strategy briefing suggest that day will come rather soon – within the next couple of years.

Central to Shell’s natural gas strategy is liquefied natural gas (LNG), a business in which it claims to be the leading international player, ahead of ExxonMobil, BP, Total, BG and Chevron. Rapid growth in Shell’s LNG production portfolio – which spans projects in Australia, Brunei, Malaysia, Nigeria, Oman, Russia and Qatar – will see its output approach 20 million tonnes per annum in 2009, roughly 7% of world-LNG production. In 2010-11 new projects will be coming on stream in Qatar and Australia.

From the viewpoint of gas consumers, LNG’s flexibility compared with pipeline gas has given it a globalising role in what were previously isolated regional markets, and the contribution it can make to security of supply is increasingly valued, not least in Europe following the Russia-Ukraine crisis at the start of the the year.

Shell’s LNG business is headed up by Kathleen Eisbrenner, a well-known figure in the industry following her success in making floating regasification a reality during her time as chief executive of Excelerate Energy. As the industry enters a challenging decade, we asked her how she sees the industry developing, and what will be Europe’s – and Shell’s – role in that evolution?

What got you interested in LNG in the first place?

Becoming involved in LNG was an extension of the experience and knowledge I’d gained in the US pipeline gas industry, with the opportunity to apply the lessons I’d learned to the global LNG market. What has so fascinated me is that there’s an analogous thing happening right now: the global gas business is moving from being largely driven by point-to-point long-term contracts to one that’s more liquid, tradable and efficient for all parties involved.

You recently said that Shell expects LNG demand to continue to grow in the medium term. What are the factors driving that growth?

The largest factor in the near term is the LNG supplies that will be coming on line over the next couple of years. Those supplies will find a home. These are projects on which final investment decision (FID) was taken in the middle and early part of this decade, usually in the expectation of the LNG going to the US or UK markets. Over the medium term it will be fascinating to watch how the many new LNG importers will drive the demand side of the market, countries like Brazil, Argentina, Chile, Germany and Croatia. Many of them will be importing within the next four to five years so there will be a shift in where supplies

end up going. The regasification infrastructure these countries are building is not based on long-term contracts for LNG supplies. And yet the supply projects are being built to supply the US and UK markets. The balancing and rationalisation of that will be a real opportunity for the industry. Also, the Middle East has become part of the demand-side growth of the LNG industry as well as the supply-side growth. For example, Shell is part of a 15-year transaction to deliver Qatari LNG to Dubai.

How is the crisis affecting LNG markets?

It's at times depressing and at times fascinating to see how quickly things can change. There has been a fall-off in demand for natural gas in several regions, including Asia, which is almost 100% LNG in its natural gas. On the opportunity side, liquidity in LNG has really grown. So through our trading business we may perhaps be able to pick up the cargoes that the Japanese and South Korean customers might not need over the near term and take them to other markets.

'Liberalisation hasn't created the panacea that people hoped for'

The crisis may be an opportunity for the LNG industry to gain market share relative to the pipeline natural gas industry. Though overall natural gas consumption might remain depressed for some time, the LNG supplies are real, the investments have already been made. So continuing to demonstrate LNG's flexibility and value is very important. It is important to remember this is a long-term business. Over the course of any single LNG project, there will be multiple cycles. We intend to continue to sell most of our LNG under long-term contracts, and expect LNG project returns to be robust to cycles over time.

Several experts have said we are facing three or four years of plentiful LNG supply, followed by a period where supply will become much tighter. Does Shell agree with these views of feast and famine?

I wouldn't call it feast and famine. We believe that in the long run energy consumption is going to continue to grow and that consumption will likely double by 2050. Natural gas is going to remain attractive for lots of different reasons and we hope and believe LNG can continue to gain market share as a contributor to the overall natural gas market.

However, we do have three significant challenges. First of all, the competition within producing countries for domestic gas use versus exports is significant in many countries, especially the Middle East, Australia and Nigeria. Most countries around the world are debating this issue. The second challenge is, that even if export gas is available how do we economically create the infrastructure to export it? We've seen a 70% reduction in oil price over the last eight or so months – but we have not seen a commensurate fall-off in the costs for new LNG projects. A substantial re-alignment has to happen on the cost side. The third challenge is people. As an industry we're getting older and we need to find new talent – perhaps looking eastwards – to continue to grow.

Which markets are likely to see the highest LNG demand growth in the medium to long term?

We see demand growth in various parts of the world, including India and China. Europe hasn't quite been willing to pay up to compete for long-term LNG supplies with Asia. But it's an oil-based natural gas economy [with long-term contracts indexed to oil and oil products], making it more like Asia than the US. The value of security of supply is something that is currently of interest to Europeans. With the new set of LNG supplies about to come on the market, Europeans have a real opportunity to compete for those supplies, not just for the short run but for the long term.

The Russia-Ukraine gas supply conflict at the start of the year certainly seems to have changed European perceptions regarding security of energy supply. Do you think we will see any changes as a result?

A compounding issue that will hopefully drive action this time instead of complacency is not just a recognition of Europe's dependence on a handful of producers, but a recognition that liberalisation hasn't created the panacea that Europeans hoped for – that somebody else would create gas-on-gas competition for them and they would be the beneficiaries of that. Europe is not going to follow identically the US model. Frankly, even the US is not as liquid as some like to think.

What is Shell doing to make the best of the opportunities that seem to be presented by Europe's new focus on security of supply?

The Russian-Ukraine situation at the beginning of the year was only a few months ago. The dialogues are heating up and we're in the midst of that. We are among the larger suppliers of both LNG and pipeline gas in Europe so we are actively promoting diversity of natural gas portfolios, including LNG supplies. We have long-term supplies from Nigeria that are, notionally at least, dedicated to the European market, and looking to grow our portfolio with additional supplies that could go to Europe. We have several receiving terminals under development in Europe, we have capacity at some of the existing ones, and we have good relationships with customers as well as the major producers of natural gas in Europe, such as the UK, the Netherlands of course, Norway and Russia.

Until quite recently there were expectations that LNG prices in the various regional markets would converge because of the flexibility of cargoes moving in different directions. Whereas you've recently been talking of expectations of "divergence". What's driving that?

Two things primarily. The first is recognition of the value of security of supply associated with control over LNG cargoes. There's a clear recognition of that in Asia. In contrast, in the

US the shale plays that have been proven up recently have led to much less perceived value of security of supply than even a couple of years ago. So there is a divergence between Asia and North America. Again, the question is: where is Europe in that spectrum? The other thing that will continue to drive the divergence is oil price versus Henry Hub-priced natural gas. Historically there has always been some level of convergence between oil and Henry Hub. I believe in the future there's a potential for greater divergence, again largely associated with the shale plays in the US.

Shell has two new liquefaction projects: Sakhalin Energy, which has just come on stream in Russia, and Qatargas 4, under construction in Qatar. How are they progressing?

Both projects are coming along well. Sakhalin is now on line and running. It was a very challenged project. It was in one of the coldest climates in the world in an environment that didn't make it an easy project to construct. At Qatargas 4 we're working in one of the hottest climates in the world. We expect that facility to come on line largely as expected. Common challenges have been cost escalation and resource constraints, consistent with the industry as a whole. What we can draw from both of those experiences – and it's true of other experiences that Shell has had – is that it's absolutely critical that we continue to have excellent relationships with our NOC partners.

At the Gastech conference in Thailand last year, Shell said it was moving forward with development of floating liquefaction projects. When might we see the first such project producing?

We're very excited about the potential for floating LNG and we're looking at several different technologies. It has the potential to address some of the challenges of where the next wave of supplies might come from. They could well come offshore and I expect Shell will be a leader in making that happen. Australia might well be the first home.

Floating liquefaction must be of particular interest to you given all your work with floating regasification.

I was really pleased when I joined Shell to find out just how far Shell had taken its commitment to be a leader in offshore liquefaction.

When you began promoting the Excelerate concept of floating regasification, many were sceptical. With hindsight, it has been a big success. Were there ever times that you doubted whether the concept would work?

I never doubted that the concept would work technically because it was grounded on proven technologies. But I had concerns whether it would work commercially.

While still at El Paso, the concern was that the concept's newness meant that it had a high risk factor associated with it. In the LNG industry we tend to be a very conservative bunch. Then El Paso moved away from being able to support the concept and turned it over to a small company – Excelerate Energy. I guess that changed the risk profile and was probably the enabler that allowed it to happen. Because we went ahead and took that newness as a merchant risk ourselves.

Since then, yes, I'm really pleased with the success of Excelerate. And I hope you'll hear of more uses of floating regasification in the Shell portfolio – in addition to floating liquefaction.

What can governments and regulators do to promote further investment in LNG?

They need to be realistic about policy that allows fair and equitable sharing of value associated with a natural resource and the monetisation of that resource. Over many decades we have demonstrated that that can be done successfully, in low oil-price environments and in high oil-price environments. But you have to be flexible – because while cycles come and go, LNG will remain a long-term business. ■

Who is Kathleen Eisbrenner?

Kathleen Eisbrenner – head of Shell's LNG business – began her career as a civil engineer, working on natural gas pipelines in the United States. As the US gas industry went through the reforms of deregulation, she participated in the efficiences that were created. Early this decade she was running the LNG business at El Paso, while the company was trying to develop a revolutionary new concept of floating regasification using specially designed ships. When El Paso decided it could no longer support the concept, which was attracting a degree of scepticism from what is generally a conservative industry, Eisbrenner established a company called Excelerate Energy to take it forward – creating an innovative way of opening up new LNG markets. The operation she now heads at Shell is one of the largest LNG businesses in the world.


Photo by: Alex Forbes