LNG: THE NEW WAVE

by Michael Stoppard

Illustration by Alex Williamson

Liquefied natural gas (LNG) may be the world's coldest traded commodity. After all, LNG involves chilling natural gas to minus 260 degrees Fahrenheit to turn it into a liquid that can be loaded onto ocean-going tankers. But it is also now one of the hottest tickets in town. Twenty years ago, nine countries imported LNG. By 2018, the figure had risen to 42. Expectations are for continuing strong growth. IHS Markit projects LNG demand to increase from 320 million tons (mt) in 2018 to 465 mt by the mid-2020s, and to reach more than 630 mt by the mid-2030s, as more gas goes into heating and electricity generation around the world.

This is a turning point. After several years when optimistic talk contrasted with modest activity, the last six months have seen a sharp uptick in investment. Construction of large volumes of new capacity has started, featuring great variety in terms of geography, technology, scale, promotor, and business model. There is a major project in a new LNG exporter, Canada; a giant reconfiguration of a U.S. plant in the Gulf of Mexico; and small-scale floating projects in Mauritania/Senegal and Argentina.

Construction will start over the coming year on much more capacity. Indeed, 2019 is likely to set a record for volume of new go-aheads. The projects first out of the gates seem likely to serve as a "firing pistol" to initiate a new phase of development.

The LNG industry has three leading suppliers: Qatar, Australia, and the up-and-coming United States. After several years of moratorium, Qatar has announced major growth plans; the U.S. will continue to grow strongly. The scope for growth in Australia may be more limited. Meanwhile, Russia will likely emerge as the fourth pillar of supply, based in part on unlocking previously stranded gas in the Yamal Peninsula. Mozambique will also be a major new supplier.

In spite of robust demand growth, the market has served as the brake on even higher growth. The need to have a quality customer has acted as the constraint on development and financing, at least for the Asia-Pacific market — but no longer. Companies with sufficient size and heft are moving toward developing projects on their balance sheets by moving ahead without the long-term contracts that have defined the business to date. Developers are now able to sell either to a growing group of aggregators or trading houses. This model reconciles the need for upstream investments to have long-term secure outlets with the preference of many buyers for shorter-term deals.

"Spot" trading of LNG is growing, at both the producer end in the Gulf of Mexico and the consumer end in Northeast Asia. New trading platforms are also being adopted.

The big question is how buyers will respond. Will they feel reassured by the investments and buy from aggregators or spot markets? Or will they prefer to arrange their own direct deals?

With the need to line up long-term customers apparently no longer a constraint, what becomes the new brake on development? Certainly not the potential number of projects. The capacity of projects that have done or are doing serious preparatory engineering is more than 300 mt — almost the entire current global demand. There is a limit to how much risk the big international oil and gas companies will take, but it is potentially substantial when measured as part of their corporate capital spend and overall strategies.

Cost management will likely be required so developers can meet the accelerated scope while staying competitive. The industry must ensure it does not repeat past experiences of cost overruns and construction delays. That points to the need to push forward with innovative and collaborative approaches.

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