

Looking to the future

While the second wave of US LNG development has yet to begin, the country's LNG industry has a major role to play in the future, once current obstacles have been overcome, writes Anna Kachkova

US

WHAT:

US LNG will continue to play a major role in the global market over the longer term.

WHY:

The US has plentiful gas supply thanks to shale, putting new projects in a stronger position.

WHAT NEXT:

The current deadlock between LNG buyers, sellers and financiers needs to be resolved.

THE re-ordering of the LNG market continues, but even with questions remaining over how the global LNG picture will look in the future, there is growing certainty that the US will have a major role to play. Underpinning this is the country's plentiful gas resource – mainly from shale plays. The US Energy Information Administration (EIA) has forecast that US dry gas production will hit a new record high of 81.1 bcf (2.3 bcm) per day in 2018, up from 73.6 bcf (2.1 bcm) per day in 2017. Over the long term, the agency anticipates that US gas production will keep growing even under its most pessimistic scenario. And trends playing out currently appear to support this, with gas production in the Permian and Appalachian basins in particular going from strength to strength, while a revival is also under way in the smaller Haynesville.

The availability of these abundant and comparatively low-cost resources puts new US LNG projects in a comparatively strong position to push ahead. Certain obstacles still need to be overcome, however.

Breaking the deadlock

At the moment, there is something of a standoff between LNG buyers, sellers and financiers as each party seeks the most favourable terms for moving ahead. (See *NorthAmOil Week 14*) The question of who will break the deadlock is a central one for the global LNG industry.

At the CWC LNG Americas Summit, held in Houston in March and attended by *News-Base Intelligence (NBI)*, a Columbia University senior research associate at the Center on Global Energy Policy, Akos Losz, asked: "Who will blink first?" This week, he told NBI: "I think it will most likely be a combination of everyone blinking (or at least winking) a little bit. Traditional long-term LNG contracts still make sense for some buyers," he added, citing China and certain fast-growing emerging gas importers. In these countries there is little doubt about future demand growth, while domestic gas and electricity market liberalisation are not imminent. "So I think some buyers will, in fact, blink and if expectations of an oversupplied LNG market ultimately give way to fears of an imminent supply gap, then they will once again seek to lock in new LNG

supplies with long-term contracts," Losz said.

There is still pressure on banks and sellers as well, and while banks are less willing to compromise, they may have to embrace at least some degree of flexibility in the future. Sellers, meanwhile, may have to become more creative in order to obtain financing for the next wave of projects. "This can include more balance sheet financing, more portfolio offtake, more innovative business models (like the all-equity model proposed by Tellurian for its Driftwood project), and more unconventional financing sources, including from China," Losz said.

Chinese whispers

China's role in any new LNG projects has been complicated, however, by trade tensions between the country and the US. While there are hopes that a trade war will be avoided, an escalation could put the brakes on any Chinese involvement in new projects. This would be bad news for the US LNG industry, given that both sides stand to benefit from more exports to China.

"From America's perspective, greater LNG exports are one of the few ways in which the US trade deficit with China can be materially reduced," Losz said. "Meanwhile, some of the second-wave US projects could make significant headway towards FID [a final investment decision] with additional long-term LNG contracts, and China will be one of the most likely sources of such contracts over the next few years."

This has been echoed by LNG project developers in the wake of steel tariffs introduced by US President Donald Trump in early March. Freeport LNG Development's chairman and CEO, Michael Smith, was reported as saying on the sidelines of the CERAWEEK by IHS Markit conference last month that if the tariffs led to a trade war with China, Freeport LNG could suffer because China was among the potential long-term buyers for the company's LNG output. (See *NorthAmOil Week 10*)

China's participation in US LNG projects is still a new phenomenon. Cheniere Energy signed the first ever contract to supply LNG to China only in February. The 25-year deal, with China National Petroleum Corp. (CNPC), boosted developers' hopes that Chinese buyers

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- would be willing to sign more long-term contracts. But the subsequent introduction of steel tariffs and ongoing trade tensions call this into question.

“From the Chinese perspective, importing more US LNG would be advantageous for many reasons,” Losz said. “First of all, China will need more LNG in the foreseeable future to meet its ambitious government targets and clean up the air. US LNG – with its relatively low costs, limited completion risks and transparent pricing terms – could actually help China diversify its natural gas supply mix away from both its traditional suppliers and its predominantly oil-linked LNG contracts. If anything, then China should want more rather than less US LNG from an energy security perspective.”

It seems likely that China’s growing demand will make it turn to US LNG in the longer term, but for the moment developers hoping to attract Chinese buyers to new projects in the coming months may be disappointed.

What next?

The US LNG industry is waiting to see which project will be the next to announce an FID, though a second wave of project construction may take some time to materialise.

“I expect new FIDs in the near future, including some in the US, but it may not be a wave just yet,” Losz said, citing the third Corpus Christi LNG train as a project that could go ahead soon, as could Golden Pass LNG. (See *NorthAmOil Week 15*)

“Some pre-FID projects have already secured some long-term commitments from buyers, and these can probably get to an FID relatively quickly, if and when buyers show up again for additional long-term LNG contracts,” he added. “Expansion trains at first-wave US terminals are also in a cost-advantaged position relative to some global competitors, and projects that offer entirely new business models (e.g. Tellurian) might just as well gain traction with customers in the near future. I think the economics of new US projects can continue to improve, especially if associated gas production growth continues strongly in the Permian, and US gas can be bought to the global market significantly cheaper than Henry Hub.”

The second wave – once it takes off – will also provide a clearer indication of how major the shift to smaller-scale LNG projects will be. (See *NorthAmOil Week 12*)

“The jury is still out there on whether smaller trains are really better in a world where the average contract size has been shrinking for some time,” Losz said. Citing a number of proposed mid-scale ventures, he added: “While most of these projects are probably not the best FID candidates in the immediate future, at least one or two have reasonably good prospects to go ahead eventually.”

However, most of the projects that would be made up of mid-scale trains would still be large projects overall, requiring more trains than the current crop of new LNG projects coming online in the US.

“What this suggests is that liquefaction plants (particularly greenfield facilities) still require economies of scale, so the overall plant size needs to be fairly large to justify building costly infrastructure around them,” Losz said. “We shall see whether some of these projects can go ahead with only a few mid-scale trains sold out to buyers. My guess is that this will be difficult for new greenfield projects, maybe less so for existing terminals that are trying to add smaller trains to their existing facilities.”

Future projects are more likely to be greenfield facilities, though, so bringing down costs would become more important for developers. However, US projects remain in a comparatively favourable position, with Losz noting that most projects can work in a US\$7-8 per mmBtu (US\$193-221 per 1,000 cubic metre) range on a full cost basis. “This will mean that all other projects that have higher costs could fall off the table (at least for some time), and US LNG economics will set the long-term price of LNG for a while – at least until we run out of capacity that is economical at this US\$7-8 per mmBtu cost level,” he said.

For now, though, the new wave of projects remains in limbo while developers continue to seek buyers for their output. US projects are in a favourable position, and it makes sense for major buyers – including China – to look to the US for future sources of supply. But first the deadlock between buyers and sellers needs to be broken. ❖



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