# LNG market could get worse before it gets better

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(Kenai Borough Chief of Staff Larry Persily was invited to participate in an LNG conference in Houston and prepared this report as part of the borough's efforts to share information about global LNG market developments. No borough funds were spent on travel.)

There was little short-term optimism — and a lot of long-term caution — at a liquefied natural gas conference in Houston this month.

Several speakers said they expect to see shut-in liquefaction capacity and underutilized LNG export plants in Australia and the United States during the next several years of an oversupplied global market.

Or some offtakers from U.S LNG export terminals might decide to take the gas and sell it into the depressed market to generate cash flow, regardless whether they can recover the full contracted cost for their reserved liquefaction capacity at the plant.

Under their contracts with LNG project developers, the offtakers — overseas utilities, traders, portfolio players — have to pay for the booked liquefaction capacity at the plant even if they don't want the gas. It's similar to a non-refundable airline ticket. Those long-term take-or-pay contracts helped developers attract financing for the multibillion-dollar ventures.

Since that money has to be paid one way or the other, offtakers might as well load the LNG as long as they can clear a profit against their additional costs of feed gas and shipping, some speakers said.

"Basically, we don't see people covering all of their liquefaction costs," said Jason Freer, head of business intelligence at energy industry consultancy Poten & Partners. Spot-market prices in Asia have been around \$5.50 per million Btu of late and even less in Europe — both a couple dollars short of the cost of buying U.S. gas, liquefying and shipping the LNG overseas. Longterm LNG supply contracts in Asia linked to oil prices are running approximately \$1 or \$2 higher, depending on the terms, but still short of the full cost of U.S. LNG.

U.S. exports are "very expensive today," Freer said.

And while some U.S. offtakers will essentially write off the fixed liquefaction costs and sell the gas for whatever cash flow they can generate, others may decide to pay the fixed liquefaction

charge and not load up an LNG carrier, said U.K.-based Mike Fulwood, director for global gas and LNG at consultancy Nexant. "Some offtakers may decide not to lift," he said.

The market will get worse before it gets better, Fulwood said at the annual LNGgc Americas Conference in Houston on June 1-2.

## MORE U.S. LNG ON ITS WAY

Poten & Partners does not expect U.S. LNG export plants to reach full utilization for six or seven years, Freer said. The first Gulf Coast plant started exports in February 2016, with more capacity under construction at that Cheniere Energy facility in Sabine Pass, La. Meanwhile, construction continues at five other U.S. LNG export projects on the Gulf and East coasts, all scheduled to start up over the next 18 months or so.

By 2020, U.S. Gulf Coast export capacity — not utilization — is estimated to total 80 million tonnes a year, about 10 billion cubic feet of gas per day, according to a May report from Platts Analytics' Eclipse Energy. That's the equivalent of almost 30 percent of global LNG trade last year, adding to the excess supply.

The potential for shut-in production also exists in Australia, where half a dozen new, large-volume export plants have started operations or are nearing completion. "We're going to see a definite shutdown and underutilization of capacity (in Australia) in the next few years," said Vivek Chandra, a 24-year veteran of the gas business who is CEO of his own venture that proposes to build a small-scale LNG plant on the Texas coast.

Until demand catches up with supply, "there's a real scramble to find homes" for the surplus, Freer said.

#### **DEMAND GROWS WITH LOW PRICES**

The good news of an oversupplied market and its resulting low prices, speakers said, is that it continues to attract new customers, which, in time, will help bring up demand to match supply.

"We certainly think that falling prices are growing demand," said Wayne Ross, a senior energy analyst at Platts Analytics who covers U.S. gas markets. Depending in part whether the world's largest LNG exporter Qatar adds more production capacity to protect its market share, there may be a good opportunity for new suppliers after 2023, Ross said.

Demand growth is not expected from the world's traditionally largest LNG buyers of Japan, South Korea and Taiwan, several speakers said, but rather from China, India, Pakistan, Bangladesh, Thailand and other Southeast Asia nations and emerging economies worldwide. In fact, demand from Japan, the world's largest LNG buyer, is expected to decline slowly, but steadily, over the next several years, Ross said.

Calling \$6 LNG the "sweet spot" for building new demand, a long-term affordable price would lead to more consumption of the fuel, in particular in China and emerging Asian economies, said New York City-based Leslie Palti-Guzman, director of global at consultancy The Rapidan Group.

Chandra concurred. "Low price breeds increased demand," especially in emerging markets where most of the fuel goes to power generation, he said.

It's not just low prices that will attract buyers, but also multiple supply options and flexible contract terms, said Washington, D.C.-based Chris Goncalves of Berkeley Research Group. "The tsunami of U.S. LNG coming online by 2025 will stimulate supply liquidity, commercial flexibility."

### **CREDITWORTHINESS OF BUYERS A CONCERN**

But future demand is not without risks, Goncalves said. The market could suffer if demand growth does not occur as forecast in China, India and other expanding markets. New buyers in particular are highly price sensitive, he said. In addition, "not all of them have the credit," which means more risk to sellers.

The credit quality of buyers in new markets will be "a gray issue," Freer said. In addition to being less creditworthy, many of the new customers have a smaller appetite than the larger, traditional buyers in Japan and South Korea, he said. The new customers are signing up for 2 million tonnes of LNG per year, or less--which means it takes a lot more customers to cover a project's output and back up its finances.

Another area of increased risk for LNG suppliers is the shorter term of contracts. The average contract term has fallen off from 20 years to just eight years, said Matthew Cline, director of the Office of American Affairs at the U.S. Department of Energy.

Lacking the traditional 15- and 20-year deals of the past, project developers — their banks and other lenders — will need to get "a lot more innovative in fundraising," Freer said. The decline in long-term take-or-pay contracts that locked in buyers and protected project developers

favors new projects backed by oil and gas majors and other companies with strong balance sheets, he said.

The shift away from long-term, rigid contracts with high-quality, creditworthy customers means project financing will have to adapt to the changes. "With the delay in project FIDs (final investment decisions), no sponsors have attempted to test the shifting market and based a multibillion-dollar project financing mostly on shorter-term contracts for offtake/tolling from sub-investment grade companies," said a March report from Poten & Partners. "It is unclear how much flexibility there would be in liquefaction project financings to adapt to this change."

#### **INVESTMENT DECISIONS NEEDED FOR 2020s**

And what if demand catches up with supply and new LNG projects are needed in the 2020s? "FIDs are falling off the cliff," Chandra warned, referring to the multibillion-dollar, years-in-advance commitments needed to build new supply. "A few years from now, we will all be suffering because we will not have enough supply."

Freer shared the same concern over a lack of investment decisions for new projects to come online in the 2020s.

Fulwood sees the next FIDs for new supply in the 2020s coming from Golden Pass in Texas, a partnership between ExxonMobil and Qatar Petroleum; an Anadarko-led project in Mozambique; and Qatar adding to its LNG-making capacity to protect market share. The three combined would add about 10 percent to the world's LNG supply volume.

Market share is important to Qatar, especially since it is expected to lose its title as the world's largest LNG producer to Australia before the end of the decade. "The incumbents are not just going to walk away and let the new players take it," Chandra said.

In addition to supplying new demand, there is opportunity in the marketplace to win over buyers as their long-term contracts expire in the 2020s, Freer said. More than half of the world's contracted supply is due to expire by 2030. "There is a tremendous amount of competition for that volume," he said.

"We're at the beginning of this process of market restructuring," Freer said. "Buyers are faced with many choices, maybe too many."

So many supply choices, contract options and pricing terms present their own problems, Goncalves said. "Some buyers are paralyzed by market uncertainty and the array of commercial options."

And even before their contracts expire, several buyers are looking to renegotiate better terms. "We see a lot in Asia, companies with 10 years left [in their contract) going to their suppliers and trying to get any benefit they can," Freer said.

That could include taking more cargoes or extending the contract term in exchange for lower prices, Goncalves said.

For China, future demand will depend in great part on its progress in turning away from coal toward cleaner-burning gas, Chandra said. "Coal-fired generation is just not the way to go. I think the Chinese get that."

For Japan, the variables are coal and also a return to nuclear power, said Toyoshi Matsumoto, of Osaka Gas. A recent court decision is expected to speed up the decision process on reopening nuclear reactors that have been closed since the 2011 Fukushima meltdown, he said. Of the country's 52 reactors that operated before the shutdown, 14 will be decommissioned, 17 are waiting for a decision, and 21 have applied for permission to restart — and of those, only three have restarted.

As to the country's future with coal-fired generating plants, Matsumoto said there's a conflict between the Ministry of the Environment and the Ministry of Economy, Trade and Industry. LNG, in particular U.S. LNG, needs to be low-priced to be competitive in Japan's fuel decisions, he said.