

HOW CAN US PRODUCERS BENEFIT IN THE EXPANDING GLOBAL LNG MARKET?

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– Glen Ragland, Partner

There's no doubt that the global Liquefied Natural Gas (LNG) markets are booming, with record demand and a growing network of LNG liquefaction facilities producing increasing volumes to supply those buyers around the world. Recently, the International Group of Liquefied Natural Gas Importers (GIIGNL), an organization of global LNG market participants, released their 2019 Annual Report¹ on the state of the global LNG markets. In that report, they noted the global LNG market grew by more than 8 percent in 2018, with deliveries totaling 314 million tons per annum (MTPA) or more than 41 billion cubic feet per day (BCFD) – almost three times the amount delivered in the year 2000. In total, 42 countries imported some volume of LNG in 2018, with Asian markets accounting for more than 75 percent of global demand, primarily China, Japan, South Korea and India. Though demand in Japan, the world's largest consumer of LNG, was down slightly in 2019 at 82 MTPA, China saw a 38 percent increase in demand in 2018, with imports totaling 54 MTPA.

Twenty countries are now producing LNG for export, with Qatar and Australia accounting for about 45 percent of the global supply in 2018. During the year, nine new liquefaction trains came online, including three in Australia (Wheatstone Train 1 and Ichthys Train 1 and 2), three in the United States (Sabine Pass Train 5, Cove Point and Corpus Christi Train 1), two in Russia (Yamal Train 2 and 3) and one on a floating facility off the coast of Cameroon. In total, these new facilities added approximately 41 MTPA of capacity in 2018.

GIIGNL also notes that around 25 MTPA of new liquefaction capacity is expected to come online in 2019, with the majority of the additions coming from the US (21 MTPA), which, according to the Energy Information Administration (EIA), will bring total US export capacity to 6.3 BCFD (48 MTPA), placing the US third among exporting countries. The EIA further notes that with additions from facilities currently under development, total US capacity will exceed 10 BCFD (76 MTPA) by the end of 2021, which would position the US ahead of Australia and trailing only Qatar in production capacity.

US LNG DEVELOPMENT

The rapid growth in US LNG export capacity, starting in early 2016 when Cheniere's Sabine Pass Train 1 came online, has been fueled by increasing production of natural gas that was previously locked in tight sands and shale deposits. Consequently, this has positioned the US as a long-term provider of LNG for international markets. With growing US natural gas production keeping domestic prices low, LNG export development continues to attract investment, and the number of facilities operating under construction has multiplied. As previously noted, more than three BCFD of capacity will come online in 2019, and an additional 3.2 BCFD by the

end of 2021, from five facilities along the Gulf Coast and one in Georgia (Elba Island). Between 2022 and 2025, another 3.9 BCFD will be added from plants currently under construction at Calcasieu Pass in Louisiana and Golden Pass in Texas.

Further out, more than 11 BCFD of incremental capacity could be added from seven planned and permitted facilities along the Gulf Coast. While it's not a guarantee all these facilities will achieve a positive financial investment decision (FID), should they go ahead as planned, the total US capacity could surpass 25 BCFD (190 MTPA) in the coming years.

1. https://giignl.org/sites/default/files/PUBLIC_AREA/Publications/giignl_annual_report_2019-compressed.pdf

CHALLENGES FOR US LNG PRODUCERS

US producers of LNG face a unique challenge compared to other US energy producers; their product has no viable domestic market. As such, US LNG producers have exposure to market developments and risks associated with an increasingly competitive global marketplace. LNG trade, though growing, is still somewhat limited in scope and liquidity because of the scale of investment required to buy or trade a sea-borne cargo. Additionally, with planned production additions, particularly in Russia, Qatar, and the US, some forecasts do indicate the LNG market could suffer from higher supply than demand for several years.

Access to cheap natural gas gives US LNG producers an advantage against many countries with higher production costs. However, geographically, they are almost equally as disadvantaged as their primary competitors - Qatar, Australia, and Russia, who are better positioned (lower shipping costs) to serve the largest markets in the Asia Pacific region. However, with a growing international fleet of non-dedicated LNG tankers, providing increased competition and transport flexibility, shipping costs could fall over the next several years, narrowing that cost differential.

Operationally, the mix of agreements - either tolling or offtake - will affect the commercial operations of the facility and their risk profiles. Under tolling agreements, the 'buyer' of the LNG produced will be responsible for securing natural gas feedstocks, for delivery to the plant and other operational costs, such as their proportional share of electric power, port operating expenses, and natural gas pre-treating costs. Tolling agreements do provide some level of financial security - market risks are reduced, and take-or-pay provisions almost always back tolling agreements. Under an offtake purchase agreement, the plant operator assumes responsibility for both operations and purchases/delivery of feedstocks. As a result, they may have more significant price risk exposure (though dependent on the negotiated purchase agreements, you can ameliorate those risks to some degree via take-or-pay provisions or LNG purchase prices tied to Henry Hub, or a similar index that provides the ability to hedge gas costs).

Beyond the operational and market risks faced by US LNG operators, those that are nearing FID are facing a new challenge in the Trump administration's ongoing trade battle with China. In May, the Chinese government announced they were increasing the existing 10 percent tariff on US produced LNG (first enacted in mid-2018 in response to US

tariff imposed on many Chinese goods) to 25 percent. Following this announcement, Chinese buyers (primarily state-owned entities) have indicated they intend to delay new investments in, or purchase agreements with, US-based facilities and are looking outside the US to find new supplies. With the loss (at least temporarily) of these Chinese buyers, several of the permitted but not financially committed facilities could be at risk of delay or cancelation if US LNG operators cannot find alternative buyers.

Those potential alternatives could come from European buyers looking to decrease reliance on Russian gas supplies delivered via pipeline, but the European market has not met growth forecasts for the last several years. Other potential backers/buyers could come from the pool of merchant companies (buying for reselling) that are supplying the expanding LNG spot market, which now accounts for about a third of the total global market, an increase from about 28 percent from 2017 to 2018. Several multi-national energy firms like BP, Shell, ENI and Total have increased their investments (including equity investments and/or medium to long-term purchase agreements) and appear to continue to seek out additional volumes to meet demand and provide flexibility in supplying their ever-increasing portfolios of spot, short-term and long-term buyers in Asia, South and Central Americas and Europe.



THE FUTURE FOR US LNG CONTINUES TO LOOK BRIGHT

Though at the time of this writing, the US-China trade war continues, it's likely that at some point both parties will come to an agreement and US LNG producers will again have unfettered access to the rapidly growing Chinese markets. In the meantime, increasing supplies of cheap US natural gas will continue to position the US as an attractive and reliable

LNG supplier for buyers in the Atlantic Basin and Asia. This will encourage the development of new liquefaction facilities, as global buyers seek out the most economical and reliable sources to meet growing international demand.

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