

Cheniere ramps up new LNG strategies

In June, Cheniere Energy Inc. revealed plans for two significant LNG project developments that are expected to add up to 19 MMtpy of incremental LNG production capacity and bring Cheniere's aggregate nominal LNG production capacity to 60 MMtpy by 2025.

At present, Cheniere has a total of five liquefaction trains under construction at its Sabine Pass facility in Cameron Parish, Louisiana (FIG. 1). The Sabine Pass project is fully permitted for up to six trains, each with a nominal LNG production capacity of 4.5 MMtpy, bringing the total LNG production capacity of the project to 27 MMtpy.

In addition, Cheniere is developing another project at a site near Corpus Christi, Texas. The liquefaction project, known as the Corpus Christi Liquefaction Project, is fully permitted for three trains with an aggregate nominal production capacity of 13.5 MMtpy. In May, Cheniere

started construction on the first two trains and expects to reach a final investment decision (FID) on the third train upon conclusion of commercial arrangements and financing.

In June, Cheniere announced plans to add another two trains—Train 4 and Train 5—to the Corpus Christi facility, bringing the total expected nominal LNG production capacity to 22.5 MMtpy over a total of five trains.

The company has also

agreed in principle to partner with Parallax Enterprises LLC to develop up to 10.4 MMtpy of LNG production capacity through Parallax's two mid-scale projects. Both projects are expected to have two liquefaction trains designed for an LNG production capacity of approximately 2.6 MMtpy each, utilizing liquefaction process technology and modular equipment developed by Chart Industries Inc. The facilities are being engineered by Bechtel Oil, Gas & Chemicals Inc.

The construction of Trains 4 and 5 at the Corpus Christi project, and the two projects with Parallax Enterprises, would collectively provide 19 MMtpy of incremental nominal LNG production capacity to Cheniere. The proposed projects could be under construction as early as 2017, subject to receiving all required regulatory approvals and reaching FID. The projects would be targeted to begin production as early as 2021, with all 19 MMtpy online by 2025.

Gas Processing talks to Cheniere Energy Senior Vice President Katie Pipkin about the company's expansion plans and the future outlook for LNG markets.

GP. How does your partnership with Parallax fit into your plans for LNG capacity expansion?

Pipkin. Parallax is a group we are partnering with, and they are developing two mid-scale projects with an expected capacity of 10 MMtpy. The projects include Live Oak LNG, which is situated on the west side of Louisiana, and Louisiana LNG, which is situated on the east side of Louisiana.

These projects are being designed with a different technology and on a smaller scale than our current projects. Due to their expected lower cost and modular design, we should have more flexibility in terms of development and financing, which, in turn, would give us the ability to offer customers more flexible contract terms than what are required for the large-scale projects.

GP. How is the technology different?

Pipkin. These mid-scale systems use both Chart Industries' proprietary equipment technology and the patented IPSMR single mixed-refrigerant process, which, together, improve operating efficiency and reduce power consumption compared to similar competing technologies.

These are modular units with capacities that can vary from approximately 0.65 MMtpy to 1 MMtpy, and that can be combined and added in increments to satisfy the needs of our customers.

GP. What are the target markets for Cheniere's LNG sales?

Pipkin. We have a variety of customers under long-term contracts. For example, for Sabine Pass, we have six customers for our five trains, including BG Group Plc, which is a big gas marketer, as well as Spain-based Gas Natural Fenosa, India-based GAIL, Korea-based KOGAS, France-based Total and UK-based Centrica.

Each of these companies might deliver their LNG to their home markets or sell to markets elsewhere. According to our permits, gas can go to any country with which the US has trade relations. Overall, it seems that most of the LNG will be going to Asia and Europe.

GP. Do you have other avenues for sales in addition to these long-term contracts?

Pipkin. Yes, we have a Cheniere gas marketing operation as well. Our excess LNG, or LNG that is not sold under long-term contracts, is available to our marketing group to sell.

For example, if we look at the nine liquefaction trains being developed at the Corpus Christi and Sabine Pass LNG facilities, on a combined basis, about 80% of that capacity will be sold under long-term contracts and 20% will be available for sale through our marketing group. Cheniere Marketing has strategically located offices in the UK, Singapore and Chile. LNG will be primarily sold under shorter terms and various pricing mechanisms through this business.

GP. That brings a lot of benefit to the US and its energy economics.

Pipkin. It does. It is important to us to partner with our local communities as we develop our projects, and we are very appreciative of the support we have received in return. In addition to providing jobs and state revenue, we have developed programs that give back to the local community, such as our Craft Development Program, which recruits exiting military graduates, high school graduates and technical school students into a program designed to provide specialized training in advanced welding programs.

We expect the Sabine Pass project to create 400 new direct jobs, and the Louisiana government estimates the project will result in 1,569 new indirect jobs in southwestern Louisiana. In total, we calculate that our LNG production platform of 60 MMtpy will create over 200,000 indirect jobs, including E&P and construction jobs.

GP. Do you think that the global market for LNG will continue to be healthy?

Pipkin. Yes. Natural gas is an environmentally friendly fuel, and many countries plan to use gas as a feedstock as they expand their power generation capacity. In places like China and India, where gas is also used for heating, there is a tremendous potential for additional LNG demand. If gas prices continue to remain low, we could see LNG demand increase even more.

GP. Do you see a decrease of demand in any specific global region(s)?

Pipkin. Other than the US, which has decreased its demand for imported LNG, no, we don't expect to see decreased demand for LNG in any other region.

GP. What is different in the LNG market, from back when you announced your first LNG export project, compared to today?

Pipkin. When we announced our first LNG export project back in 2010, we had planned to develop two trains at Sabine Pass, with the ability to expand to four depending on customer interest. We signed the first sale and purchase agreement in October 2011 and had the first two trains contracted by November 2011.

Customer interest was significant, so not only did we move forward with the additional trains at Sabine, but we also decided to add another liquefaction project at our Corpus Christi site. We knew that LNG market demand was strong, but I would say that it increased at a faster pace than we originally anticipated.

Since our announcement, other companies have followed suit, and other liquefaction projects are also being developed in the US. What's really different today is that the US will become one of the largest LNG suppliers in the world next to Qatar and Australia.

GP. Does Cheniere have any other new expansion plans?

Pipkin. We have proposed future development plans beyond liquefaction projects. We are working on other opportunities to export other liquid hydrocarbons. We believe our niche is in exports, and that expanding our exporting capabilities into other liquids would be a natural next step.

We have obtained property near our Corpus Christi liquefaction project along the Gulf of Mexico for a future development site. We are also interested in developing other midstream projects that would be a vertical or horizontal integration into our existing platform. ■

KATIE PIPKIN is senior vice president of business development and communications for Cheniere Energy. She previously served as vice president of finance and investor relations at Cheniere, a role she had held since June 2010. She began her career with Cheniere in September 2007 as vice president of investor relations. Prior to joining Cheniere, she was an analyst at Lehman Brothers in the regulated and unregulated natural gas sector. Ms. Pipkin earned her Bachelor of Business Administration degree in finance from the University of Texas.



KATIE PIPKIN, senior vice president of business development and communications for Cheniere Energy



FIG. 1. Cheniere's Sabine Pass LNG complex is under construction.

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