## U.S. could be world's largest LNG producer -- analysts

## Nathanial Gronewold and Gabriel Nelson, Environment & Energy Publishing, 2-16-12

HOUSTON -- Liquefied natural gas exports from the United States have the potential to upend the global supply system with minimal impacts on the domestic gas market, financial analysts told industry insiders today.

Recognizing the growing debate over whether companies should be allowed to export some of the United States' abundant gas supplies in the form of liquefied natural gas (LNG), experts studying the impact sought to assuage concerns among lawmakers and some industries that LNG exports will spike domestic gas prices. At the same time, some are cautioning developers of LNG export terminals to not be too optimistic about their future customer base, as they will be facing plenty of competition.

The prospect of the United States' becoming a major world LNG supplier dominated the conversation at the opening day of the annual LNG Summit, hosted by the energy and metals pricing and intelligence firm Platts. A handful of firms are moving forward with their plans to build seven LNG export terminals, most to be situated along the Gulf of Mexico coast, even as debate heats up in Washington over moves by some lawmakers to block exports.

"The U.S. could become the next Qatar, i.e. the largest LNG producer in the world," Thierry Bros, a senior analyst at Société Générale, told the packed audience. "The U.S. is at a turning point."

At the same time, would-be LNG exporters in North America should keep an eye on other LNG or natural gas market developments that they will have to compete with, Bros said. He particularly noted a massive LNG project currently under development in northwestern Australia, which would also put that country on par with Qatar as a major LNG supplier. Russia and China are also in discussions to supply China's booming economy with abundant Russian supplies through a pipeline via Siberia.

Bros told the audience that they should pay very close attention to the biggest "wild card" in the whole picture -- shale gas from China.

The U.S. Energy Information Administration estimates that China's natural gas reserves are greater that those found in the United States. The delay seen between Russia and China over finalizing a contract between the two sides may be a sign that the Chinese are waiting to see how U.S. LNG supplies and its own domestic shale gas resources get developed over the coming year.

Thierry also cautioned that Europe may not prove to be such a strong LNG customer in the years ahead. Though governments in Europe are eager to diversify their energy supplies away from Russia, natural gas demand in Europe plummeted by 11 percent last year. Société Générale does not see it returning to robust 2008 levels until 2018 at the earliest.

"Europe is not going to be a growing market," Thierry said.

## Access, political issues

V.V. Rao, managing director at the energy consultancy Galway Group LP, also cautioned developers that they face other challenges at home aside from the political storm now brewing.

Most notably, Rao cautioned that LNG exporters may not necessarily have access to the pipelines they need to move the gas to their coastal liquefaction facilities. Many pipelines are already locked into long-term contracts with utility companies that burn the gas to generate electricity, he said.

He also noted that many gas pipelines in the United States are constructed to only carry the fuel source in one direction, usually inland toward cities. Expensive upgrades would have to occur in order to move gas along the same lines in the opposite direction.

But Rao acknowledged that these hurdles could easily be overcome with investment. Potentially more damaging is the political debate over exporting LNG.

"There's going to be a lot of discussion on this issue," Rao said.

Some manufacturers and members of Congress are asserting that allowing companies to sell U.S. gas abroad would spike gas prices at home, hurting the broader economy.

Benchmark Henry Hub gas prices have plummeted from record highs of \$10 per million British thermal units (mmBtu) just before the shale gas boom to around \$2.50 mmBtu today. By contrast, LNG is priced abroad by indexing it to the price of Brent crude oil, creating a big gap between the two markets.

By linking the now-isolated North American gas market to global LNG markets, U.S. gas prices will rise to meet expensive international levels, opponents of exporting fear. But in a presentation today, Tom Choi, a gas expert at Deloitte MarketPoint LLC, ran through a study his company conducted that suggests an opposite effect might occur.

Choi argued that given the huge supply of gas to draw from -- by some estimates the United States has now replaced Russia as the world's largest gas producer -- it is more likely that the very nature of LNG pricing will shift, tying the commodity to Henry Hub prices rather than Brent crude as U.S. suppliers compete abroad.

Meanwhile, Deloitte's modeling estimates that gas prices in the United States would rise by 12 cents on average once LNG exports enter the picture. The price impact grows weaker the farther one goes from the Gulf of Mexico because of the regionalization of gas markets, Choi added. While LNG exports would add about 22 cents to the Henry Hub price, gas in the Northeast supplied by the giant Marcellus Shale field would rise in price by about 10 cents, Deloitte estimates.

"The price impact is expected to be fairly modest," Choi said. "Our findings are the objections raised by opponents are largely inconsistent."

Davis Thames, president of Cheniere Marketing LLC, argued that manufacturers that rely on gas as a feedstock also have no need to fear export plans by his firm and others. Low gas prices have pulled rigs away from gas to tight oil projects instead, which also tend to produce condensates, or "wet gas" that is converted to ethane.

Production of ethane in the United States is booming as a result, but little of it is being exported. Thames said chemical manufacturers should mainly focus on ethane and not natural gas supplies, and a push to invest heavily in shale oil and natural gas liquids extraction suggests abundant future supplies.

"That's the feedstock that chemical producers use," Thames said. Thames also repeated warnings raised earlier this week at a congressional field hearing held in Corpus Christi, Texas, that attempts by lawmakers to block

LNG exports would violate various free trade agreements that the United States has signed with other nations and would run afoul of the World Trade Organization.

## **Impacts in Washington**

Just how much impact industry's defense of LNG exports will have on the debate in Washington is yet to be seen.

Earlier today, Energy Secretary Steven Chu, whose agency must review certain permits for LNG terminals, tried to clear the air as Sen. Ron Wyden (D-Ore.) suggested that he "has already made up his mind" about the wisdom of exporting American natural gas.

Wyden pointed to a comment Chu made earlier this month in Texas. "Exporting natural gas means wealth comes into the United States," the secretary said during a speech at Houston Community College.

Chu said the Energy Information Administration reassured him that a single export terminal would barely affect gas prices, but the agency will watch closely to avoid a future spike.

"A major focus on everybody's mind is: If we start to export liquefied natural gas, if not done right, it could have that effect," Chu said. "But there's another side ... that we also have to consider. It does create American jobs, and if the prices are kept moderate, then it does bring money into the United States, it helps our balance of trade, it creates jobs."

Currently, four LNG exporter terminals are planned for construction in Texas, including the Gulf LNG project near Brownsville, one near Corpus Christi, and the Freeport and Sabine Pass projects.

Two more are slated for the Louisiana coast, while the energy firm Dominion is moving forward on its Cove Point project in Maryland.

Deloitte's model assumes exports on an average of 6 billion cubic feet a day of a gas from the United States as LNG. The capacity proposed at four of the Gulf of Mexico facilities alone would exceed that level.