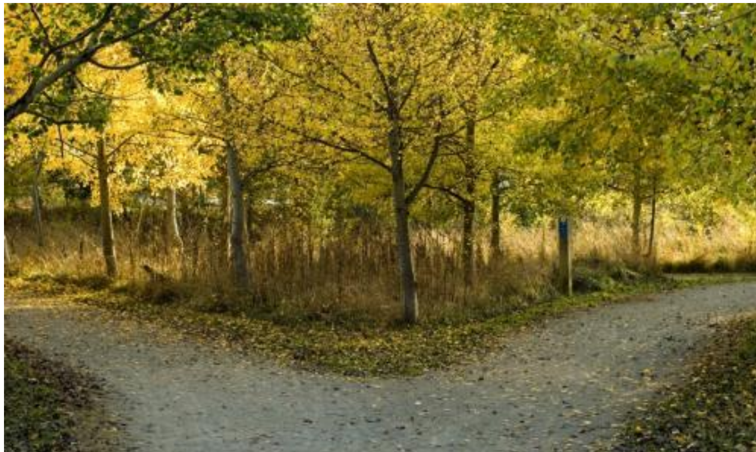
MIDSTREAM Monitor

Oct. 23, 2015 | Volume 33 | Issue 42

FEATURES

LNG Investment Decisions Will Make All The Difference



By JOSEPH MARKMAN, HART ENERGY

A reluctance to push forward with final investment decisions (FIDs) on LNG facilities during the commodity price downturn could result in a global gas shortage beginning in 2022, McKinsey Energy Insights forecasts in a new report, "Global Gas Outlook to 2030."

LNG demand growth will remain strong at 5% per year in the short term, McKinsey said, but be countered by surging supply from new liquefaction facilities coming online in Australia and the U.S. This will produce a continued loosening of the market, which could result in a pricing convergence for gas on a global scale that is a departure from the regionalized differences that developed between 2012 and 2014. That, however, could change over the long term.

"Should oil prices remain low long term, the effects will be far-reaching," said Rembrandt Sutorius, general manager for the global gas service. "New gas production facilities will unlikely receive funding, while the cost of exporting gas will outweigh its market value, leading to market contraction and a shift toward regional divergence."

Delays in FIDs mean that supply growth will slow while demand continues to rise, creating a tighter market between 2022 and 2030.

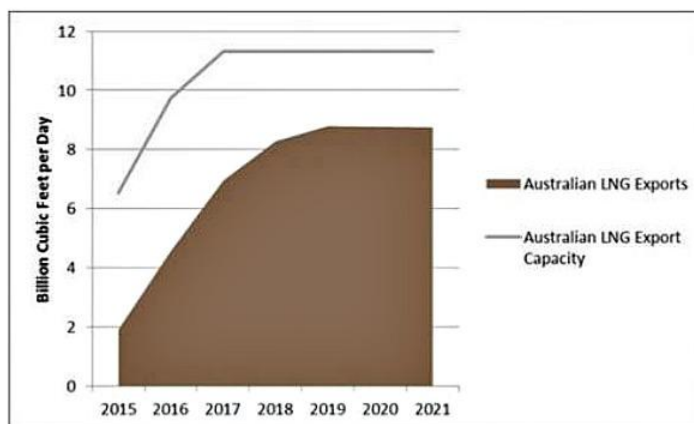
McKinsey identifies four market uncertainties that will drive future development:

- **The volume and pace of Asian LNG demand:** While Asia will be the force behind global gas demand to 2030, its level of net import growth remains in doubt. The region's demand relies on economic growth, which is shaky, especially in China;
- **Realization of proposed LNG export projects:** Any project without an FID already will struggle to get one because of low oil prices;
- **Development of export potential in the Middle East:** McKinsey considers the Middle East to be the wildcard of the LNG market. A full-force Iranian entry into the gas market could be a game changer;
- **The influence of oil on gas pricing:** Continued linkage of oil and gas prices could result in a tightening and possibly even a rebalancing of global gas demand, with a potential decline in demand in Asia.

Australian LNG Report: Gas Reserves

The issue of low prices in Asia poses a serious threat to the economic viability of projects in Western Australia like Gorgon and Wheatstone, according to a report from global consulting firm Stratas Advisors. Meanwhile, CSG-to- LNG projects in Eastern Australia, have an issue further up the supply chain that could derail their export plans before price ever becomes an issue.

According to the report, titled "Australia: An Imperfect Storm", project such as QCLNG, APLNG and GLNG, which just became the second of the three to ship first cargo last week, may run into future issues with coal seam gas reserves. The report questions the ability of these reserves to satisfy the feed gas requirements the new facilities will demand.



Source: Stratas Advisors Global LNG and Global Natural Gas Services

"It's a bit of a tales of two halves in the country. In the west they have these really expensive projects, but they are still tied to conventional gas. In the east, everyone got really excited about coal seam gas (CSG) as the next solution," said Tom Campbell, director of LNG and gasification at Stratas Advisors. "It's a contentious point, but there is some suggestion out there that this gas is may be insufficient to really meet LNG export obligations."

Using Stratas Advisors' Global Natural Gas Service and Global LNG Service, it is possible to compare forecasted total volumes of Australian LNG exports to forecasted liquefaction capacity. In the chart above, take from the Stratas Advisors report, export capacity is represented using the full expected capacity of a train for the entire year that it comes online, and does not account for ramp-up or a mid-year start time. Regardless, it provides a rough indication of total volumes available for export.

As the chart above demonstrates, total volumes available for export are expected to rise out to 2021, up to just short of 9 billion cubic feet per day (Bcf/d). However, this will be insufficient to match the expected demand for liquefaction

expected over that time, which will rise to more than 11 Bcf/d over the same time. During this time, volumes available for export will rise from 30 per cent of nameplate in 2015, to 47 per cent in 2016, before plateauing at just over 77 per cent of name plate starting in 2019.

“We looked at forecast Australian exports and capacity compared to Australian gas available minus domestic demand,” Campbell explained. “In other words, once you’ve served your domestic markets, how much gas is available for the [LNG exports] and it’s not enough.

‘It’s certainly not enough to justify new facilities, it’s not even enough to run the existing ones at full-tilt.”

The report says that such a situation would prove be troubling in and of itself, but more unnerving though is that the effects of natural gas supply shortfall will be more acutely felt for the Eastern Australian projects. “In this case, operators would be forced to develop alternate solutions in order to meet contracted volumes, or face declaring force majeure and further damning the economics of what have proven to be frustrating projects,” the report states.

Campbell said that one interesting question to ponder is whether or not the shortfall is based on geography. For example, could the Western Australia facilities be closer to the having a better percentage of feedstock gas available? If so, what is the viability of a cross-country pipeline?

While the report paints a bleak outlook for the emerging CSG-to-LNG industry in eastern Australia, Campbell said there are some promising signs for the Australian gas market in general.

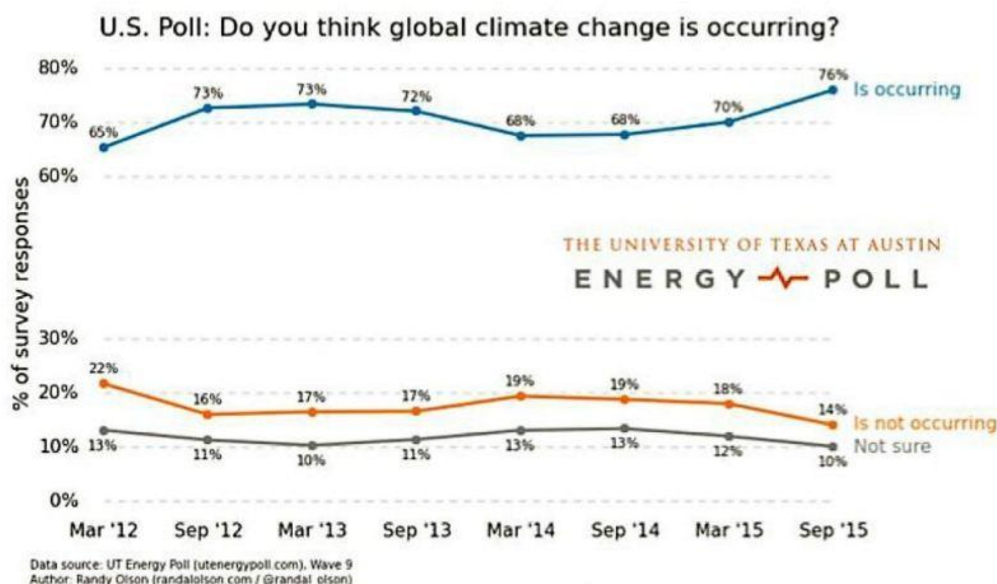
“What’s the good news for the Australian market is that, theoretically, is there’s this much demand that’s not going necessarily be met, it would spur a high Australian gas price,” he said. “That’s beneficial because it would make their operations a little bit more economic.”

More Americans Think Climate Change Is Real

By MIKE MADERE, HART ENERGY

The number of Americans who think climate change is a legitimate issue is increasing. More than three out of four Americans, or 76%, say climate change is occurring. That number is up from 68% just one year ago, according to a University of Texas at Austin Energy Poll released Oct. 20.

The poll, which was conducted Sept. 1–15, also reveals a growing support for environmental protection, particularly among Democrats and millennials.



The UT poll documents sharp political divisions among Americans on major energy issues. For example, 90% of Democrats think climate change is occurring, compared with 59% of Republicans. However, Republicans' attitudes are changing. Only six months ago, 47% of Republicans put credence in climate change. Today, 29% of Republicans say climate change is not occurring, compared with 3% of Democrats.

"Political ideology continues to be the single greatest determinant of Americans' views on climate change," said UT Energy Poll director Sheril Kirshenbaum. "Party affiliation also colors perceptions of other controversial energy topics, including efforts to reduce coal-fired power and levy a tax on carbon."

Energy has the potential to be an important issue in the upcoming presidential election. The poll revealed that 52% of respondents say they are more likely to vote for a candidate who supports reducing coal as an energy source, up from 43% March. Sixty-two percent of Democrats support coal reduction, compared with 40% of Republicans. Sixty-five percent of respondents 35 and younger support reduced coal use, compared with 42% of those 65 and older.

Here are some of the other issues the poll measured:

Carbon Tax

Thirty-seven percent say they are more likely to vote for a candidate who favors a carbon tax, up from 28% six months ago. Fifty percent of Democrats support a tax on carbon, compared with 26% of Republicans. Fifty-four percent of millennials back a carbon tax, compared with 27% of Americans 65 or older.

Renewable Sources

Sixty-two percent say they are more likely to vote for a candidate who supports requiring utilities to obtain a certain percentage of their electricity from renewable sources, up from 54% six months ago. Seventy-four percent of Democrats support such a requirement, compared with 50% of Republicans.

Gasoline Prices

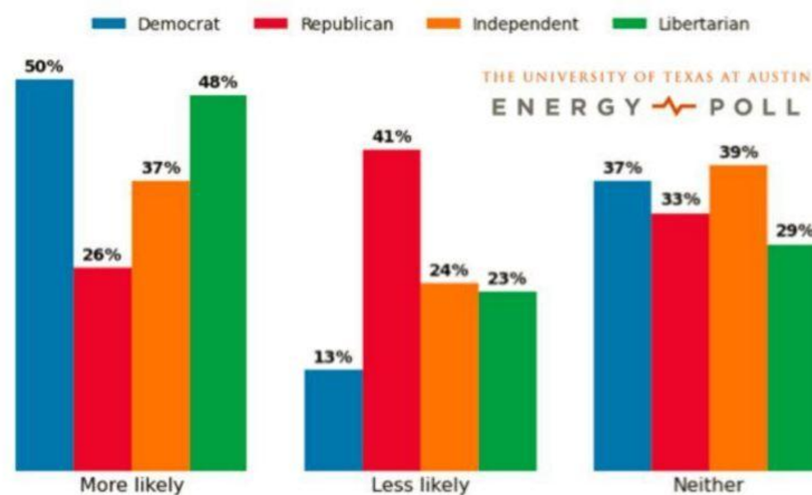
Fifty-eight percent describe gasoline prices as high, compared with 66% in March and 92% a year ago. Sixty-two percent expect gasoline prices to increase six months from now, compared with 84% in March and 76% a year ago.

Fracking

Forty-eight percent say they are familiar with hydraulic fracturing, or fracking, compared with 44% a year ago. Among those familiar, 43% support fracking and 41% oppose it. A year ago, 44% supported fracking and 41% were opposed.

Fifty-eight percent of respondents familiar with fracking continue to think municipalities should be able to ban it within their borders even if state law says otherwise. Today, 18% oppose granting municipalities such local authority, compared with 25% six months ago.

Exporting Natural Gas
Compared with last week's poll, more Americans favor policies allowing the export of U.S. natural gas. A year ago it was 34%; it's 38% today. Opposition to exporting domestic gas has dipped from 28% six months ago to 23% today.
The UT Energy Poll was launched in 2011. This is the ninth iteration of the survey.



'Perfect Storm' Hits Oil And Gas

By PAUL HART, HART ENERGY

HOUSTON – There's "a perfect storm out there," whipping around the energy business—and it may be awhile before it blows over. That's the view of Thomas Watters, managing director, U.S. upstream oil and gas, for Standard & Poor's Ratings Services.

But a price spike may occur quickly, given political and social unrest in some producing countries.

Watters spoke during a panel discussion on North America's current energy trends at S&P's annual midstream and MLP briefing on Oct. 20. Joining him in a wide-ranging discussion of current trends were Michael Grande, director for S&P's midstream and refining sector, and Gerry Hannochko, director for Canadian midstream and oil sands. David Lundberg, S&P managing director, moderated the discussion.

The panelists focused in particular on crude oil prices and how the overall industry is coping with the year-plus drop in prices. "The question is not how low can it go. The question is, how long will low prices stay there?" Watters said.

The crude market has been particularly hard hit, Watters explained, by two trends. First, he estimated the market currently is oversupplied by 1½ million barrels (bbl) per day. He noted the Cushing, Okla., oil trading hub now is better than 90% full. Second, a strong U.S. dollar has caused prices to sag.

"So why hasn't the market responded?" Watters asked rhetorically, answering with five reasons. First, producers still have high-price hedges in place that are slowly being worked off. Second, oilfield service costs have dropped an average of 35% from a year ago, making drilling and completion costs more affordable. Next, he cited statistics that show drillers continue to drill wells in less time, further increasing productivity and reducing costs. Fourth, producers have focused on

core acreage that yields wells with higher initial production rates. Fifth, Watters pointed to the large number of wells that were drilled earlier but uncompleted.

“Nobody’s exploring now,” he added. But the decline in costs may be a plus for the industry, Watters said.

“I like to think $60 to $65 [per barrel] is the new $95 to $100” for West Texas Intermediate with Brent running $5/bbl higher. Producers have learned how to make money at lower prices.

Befitting a ratings service, the panelists discussed at length how low prices, declining volumes and lower proved reserve estimates impact various industry players. In general, the bigger the player, the less the impact. However, they noted even the super majors feel an impact. In the midstream, Grande noted middle-of-the-business operators are doing comparatively better than their upstream brethren. But the recent swoon in MLP unit prices is a reminder that “MLPs are high yield for a reason.”

Looking ahead, he said midstream capex will remain strong “because we are still short on infrastructure, particularly in the Northeast,” adding that “midstream won’t decline like upstream, but in 2016 it will scale back a little bit, but not that much.” The Permian Basin and Marcellus and Utica plays have particular midstream infrastructure needs.

The refining sector is at a cyclical high, he said, adding downstream “is not a bright spot but it is relatively strong” compared to the rest of the industry. Refining may be the most cyclical part of the broad oil and gas business, he said, and refiners are wisely using proceeds from currently wide crack spreads to buy back shares and strengthen balance sheets in advance of the next downturn—whenever it comes.

In Canada, the industry “is in a huge expansion, even though EBITDA is shrinking at the same time as the industry is expanding,” Hannochko said. Canada’s October election, which saw the Liberal Party replace the Conservatives as the majority party, may have some impact on the energy business, he told Hart Energy. The Liberals have promoted a more active environmental policy but have also been supportive of energy industry development, in particular the Keystone XL Pipeline.

He noted questions related to the First Nations tribes ownership of land necessary for pipeline rights of way across western Canada could delay links between producing regions and LNG plants and crude terminals on British Columbia’s Pacific coast.

Hannochko noted that in the current downturn, Canada’s comparatively smaller midstream sector will pick up valuable midstream assets held by upstream producers as the producers seek to liquidate assets for needed cash.

Watters cautioned that the worldwide energy business “has its wild cards, in particular Venezuela and Algeria” that, because of political and social instability, could turn around the current price situation quickly. Libya is another major producer with major internal problems, he added.

“Shale has become the swing producer,” he said, and slowing production from the unconventional plays, coupled with one or more foreign producers leaving the market suddenly, could bring an abrupt turnaround in energy prices.

FRAC SPREAD

Reaching A Standstill

By FRANK NIETO, HART ENERGY

NGL prices decreased heavily from last week with large corrections occurring in the market after a month of solid price improvements. The biggest decreases were for propane at both Conway and Mont Belvieu as storage builds for both products were high and pushed to record levels.

Propane fell 11% at both hubs with the Mont Belvieu price dropping to 44 cents per gallon (gal), its lowest price in a month. The Conway price of 40 cents/gal was the lowest at the hub since it was 36 cents/gal the last week of August. Crop drying and heating demand have not yet started due to moderate temperatures in the Midwest. In the case of crop drying, demand isn't expected for another few weeks. It's looking that the same will hold true for heating demand as forecasts anticipate warmer-than-normal to normal temperatures until November. One positive takeaway from the price decrease is that propane cracking is likely to pick up as prices are once again more attractive to the petrochemical industry.

That same industry has once again embraced ethane as the preferred ethylene feedstock, but so far that hasn't translated into as large a reduction of storage balances as previously expected. In fact, ethane rejection remains at much the same level as it has been throughout the year at 600,000 barrels per day (bbl/d). Previous forecasts indicated that prices could begin to improve to 30 cents/gal by the end of 2015, but that now seems unlikely. Adjusted forecasts anticipate prices rising as high as 25 cents/gal at the most through the remainder of the year.

While NGL prices struggled this week, ethane margins showed improvement at both hubs due to a downturn in natural gas prices to $2.20 per million Btu (/MMBtu) at Conway and $2.27/MMBtu at Mont Belvieu. Similarly to propane, gas prices are waiting for the arrival of heating demand, which is likely to take at least a few more weeks to materialize.

There are positives to be taken on a longer-term basis as exports to Mexico are expected to increase substantially in the coming years, according to Barclays Capital. "Mexican demand for natural gas is growing just as domestic production is declining. Mexico's GDP fell in 2013, largely because of natural gas shortages. The government is intent on preventing further shortages, undertaking an aggressive build-out of the country's ability to increase U.S. natural gas imports as a short- to medium-term solution," the investment firm said in an October 16 research note.

Barclays anticipates U.S. gas imports to Mexico to increase to 3.2 billion cubic feet per day (Bcf/d) in 2014 and 5 Bcf/d by 2020. These are up from 2 Bcf/d that was exported to Mexico in 2014. The investment firm stated that there would be a major incentive for U.S. producers to export volumes to Mexico if the country moved to market-based prices from their current status of being linked to U.S. gas hubs, which don't accurately reflect the country's gas balance.

"This could affect the U.S. gas market as any arbitrage opportunity between U.S. and Mexican gas prices would be seized on by U.S. producers, potentially creating a situation in which the U.S. Southwest market found itself gas short," according to the research note.

Presently gas and liquids prices remain in a state of flux as the theoretical NGL bbl price was down 7% at both hubs. The Mont Belvieu price was $19.73/bbl with an 8% drop in margin to $11.43/bbl, while the Conway price was $18.85/bbl with a 6% decrease in margin to $10.81/bbl.

The most profitable NGL remained C5+ at 75 cents/gal at both hubs. This was followed, in order, by isobutane at 40 cents/gal at Conway and 37 cents/gal at Mont Belvieu; butane at 34 cents/gal at Conway and 36 cents/gal at Mont Belvieu; propane at 20 cents/gal at Conway and 23 cents/gal at Mont Belvieu; and ethane at 2 cents/gal at Conway and 5 cents/gal at Mont Belvieu.

Natural gas storage injections slowed down slightly, but were still high for this time of year as the U.S. Energy Information Administration reported an 81 billion cubic feet increase for the week of Oct. 16. This increased storage to 3.814 trillion cubic feet (Tcf) from 3.733 Tcf the previous week. Storage is up 13% compared to the same time last year when it was 3.38 Tcf and is 5% greater than the five-year average of 3.651 Tcf.

TOP STORIES

Kinder Morgan, BP Form $350 Million JV For US Terminal Business

Kinder Morgan Inc. (KMI) said Oct. 20 it will combine its expertise with BP Plc (BP) to create synergies in key refined products markets.

Houston's Kinder Morgan has finalized agreements with BP Products North America Inc. to acquire 15 refined products terminals and associated infrastructure in the U.S. The transaction is valued at about $350 million.

Kinder Morgan and BP will form a joint venture limited liability company (JV) terminal business to own 14 of the acquired assets, which Kinder Morgan will operate and market on the JV's behalf. One terminal will be owned solely by Kinder Morgan.

Kinder Morgan will own a 75% interest in the JV, with BP owning 25%. The terminals are located in the Midwest, Northeast, Southeast and on the West Coast.

"By combining BP's expertise in product trading and marketing with Kinder Morgan's strength in operations and terminal development, the JV is well suited for growth opportunities in high-demand refined petroleum products markets," said John Schlosser, president of Kinder Morgan Terminals, in a statement.

"We believe this arrangement benefits BP, Kinder Morgan and third-party customers," Schlosser added.

The terminals, with about 9.5 million barrels of storage, are pipeline-connected to key refining and processing centers across the U.S. and offer extensive truck, vessel, and barge access and terminal service capabilities.

In connection with the transaction, BP will enter into commercial agreements securing long-term storage and throughput capacity from the JV, which plans to market additional capacity to third-party customers.

The transaction is expected to close in the first quarter of 2016. **– BUSINESS WIRE**

Noble Announces IPO For D-J Basin-Focused Midstream Subsidiary

Noble Energy Inc. (NYSE: NBL) said Oct. 22 it is planning to launch an IPO for its midstream subsidiary, Noble Midstream Partners LP.

Noble Midstream's initial assets will consist of certain Denver-Julesburg (D-J) Basin crude oil, natural gas and water-related midstream services.

The Houston company has filed a registration statement on Form S-1 with the U.S. Securities and Exchange Commission (SEC) in connection with its proposed IPO of common units representing limited partner interests.

Noble Energy will own the general partner of Noble Midstream, all of its incentive distribution rights and expects to retain a majority of Noble Midstream's limited partner interests.

Barclays, Baird and J.P. Morgan are book-running managers. Noble Midstream intends to apply to list the common units on the New York Stock Exchange under the ticker symbol "NBLX." The number of common units to be offered and the price range for the offering have not been determined, the release said.

TransCanada Will Cut More Management Jobs

Pipeline company TransCanada Corp has announced new job cuts, eliminating about 20 percent of its directors as slumping oil prices continue to take their toll on its customers, a spokesman said on Oct. 21.

The company, which is proposing the Keystone XL and Energy East pipeline projects, said the latest cuts affect about 30 directors. This follows an announcement in September to eliminate 20 percent of its senior leadership positions at the vice-president level and above. **- REUTERS**

Southcross Completes Second Robstown Fractionation Train

The second of two NGL fractionation trains at its Robstown fractionator near Corpus Christi, Texas, was placed into service by Southcross Holdings LP, the company said Oct. 21.

This brings Robstown's total capacity to 63,000 barrels per day. Southcross can now deliver Y-grade NGL and additional products from Robstown to customers in the Corpus Christi area.

The Y-grade pipeline connecting the Gregory processing facility to the Bonnie View and Robstown fractionators was also completed. All three processing facilities are now connected to Robstown and Bonnie View, the company said.

The general partner, Southcross Energy Partners GP LLC, is wholly owned by Southcross Holdings, which also owns limited partner interests in multiple Eagle Ford based midstream assets. Robstown and other assets are available for dropdown, the company said.

Southcross Holdings LP is based in Dallas. **– BUSINESS WIRE**

Universal LNG Holdings Acquires HEYCO LNG Facility

Universal LNG Holdings Inc. acquired HEYCO LNG's 64-acre facility in Yoakum, Texas, to build the first LNG facility dedicated to the energy sector in the Southern Gulf Coast, the company said Oct. 20. Details of the acquisition are undisclosed.

The plant, which is expected to be operational in 11 months, will produce 300,000 gallons of LNG a day and could produce more than 800,000 gallons per day.

Domestic LNG production, coupled with several key initiatives, could reduce the cost of oil and gas per barrel produced in the U.S. by 20% per barrel, the company said. Universal LNG said small- and mid-scale LNG plants are critical regional diesel displacement solutions.

Universal and CMI, with CMI affiliate California Cartage, will partner to reduce costs on proppant, frack sand and water treatment. Canada-based Reservoir Silicates will partner with Universal to provide proppant/frack sand and treatment of post-frack water, Universal said.

The Yoakum plant will provide LNG to a client Universal will name in coming months, and also to Universal's tractor-trailer trucks. Universal also said it would send LNG to Mexico through its active export license.

The company said it is considering placing facilities on the East Coast and in North and South Dakota.

Universal LNG Holdings Inc. is based in Houston.

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