

iquefied natural gas (LNG) does not generate the same publicity as hydrogen, but those involved in the industry are just as excited about its future. Just ask Gas Innovations.

"The mood is bullish in LNG, all across the world," said Ashley Madray, Executive Vice-President and Partner of Houston-based Gas Innovations, an independent wholesale provider of hydrocarbons which has supplied some of the biggest LNG terminals domestically and globally.

"That's based on the environmental benefits versus coal and the abundance andreasonable price. Natural gas has been stable apart from one trading blip in November-December last year. But really it's been stable and fairly low compared to historical figures."

Global LNG production is set to rise by 11% this year, rising to 354 million tons thisyear and to 384 million tons in 2020, according to a report in March by Royal Dutch Shell, the world's largest buyer and seller of LNG. Most of the global demand is being driven by China's thirst for LNG and at the time of going to press, there were reports Houston-based LNG company Cheniere Energy Inc was expected to sign a new \$18m LNG supply deal with China.

"I do expect more growth," Madray told **gas**world.

"I think there will be another wave of LNG plants in the next two to three years. The first wave is coming on-stream now. In 2022, 2023, there will be another wave. The potential for our industry will be slow developing. There's talk now of fueling inland waterways, marine craft and ships rather thanfueling them with diesel. All of that bodes well for us and our industry, for tanks, installations, and distribution."

There may be a few bumps along the way though and US-China trade relations need to improve for the US to benefit from the new LNG terminals.

"There will be a pause in the next year or two and then it will speed up quickly," Madray told **gas**world.

"It takes so long to get a final investment decision. Then there's the

environmental impact studies and engineering studies that take so long. The other big issue is getting ships built to haul LNG. We understand there's a backlog of close to 80 ships. You can't just get those built anywhere."

Dave Fritz, President and CEO at Acme Cryogenics, is also optimistic about the future for those involved with LNG distribution.

"We continue to see a good level of activity in the small and mid-sized LNG applications," Fritz told gasworld.

"With the current North American natural gas supply and price stability this can only be a good thing for the US going forward. Certainly, in the portion of the North American LNG markets we serve, we continue to be optimistic about the future."

Time to expand

Analysts believe there could be an oversupply of LNG later this year or in 2020, with a tightening of supply in the mid-2020s. But for the moment, there is optimism with new production plants starting up across the US and beyond. There are 12 existing LNG import terminals in the US, and three export terminals, according to the latest Federal Energy Regulatory Commission (FERC) figures. But, according to the Wall Street Journal, there are about 25 proposed US LNG export projects.

"We will continue to expand our fleet for LNG hauling," Madray told gasworld.

"We see more, more and more testing, temporary experimentation with natural gas and we will haul more as the industry grows. It won't be rapid growth. We haul LNG all over the North American continent. Not like hundreds of loads per day, it's not a huge volume, but it's growing."

"Our customer base is worldwide, 60%, sometimes 70%, domesticinternational balance. We're a hydrocarbons supply company so we supply pure hydrocarbons of which LNG is one. So that's butane, isobutane, high-purity propane, propylene and all the high-purity hydrocarbons."



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Gas Innovations plans to continue expanding and, from its base in La Porte, is ideally located for the Houston Ship Channel. It has already invested millions in refrigerant distribution, back-up storage, engineering and logistical capabilities.

"We invested heavily in 2018 and in 2019 we will probably place orders for delivery in 2020," Madray told gasworld.

LNG can be used from electricity generation to transportation, especially marine with around 500 LNG ships currently in service globally. When used to generate electricity, it produces 45-50% less greenhouse emissions than coal. President Trump has promoted the production of coal in the US, but Gas Innovations has not seen any impact on LNG demand.

"If you think the promotion of coal has had a negative impact, we certainly haven't seen it," Madray told gasworld.

"In fact, we think for the US the policie shave helped because it has encouraged our allies to buy LNG from the US."

LNG to outperform hydrogen

Gas Innovations is a producer, purifier and packager of high-purity hydrocarbons, refrigerant gases, and specialty gases, as well as related equipment and technical expertise. Madray says the company also expects to do more hydrogen business, and for LNG to out-perform hydrogen with its potential to also replace diesel in transportation.

"I think there's a lit more sex appeal with hydrogen," Madray told gasworld.

"But I see that on an investment performance, LNG will outperform. We are in the hydrogen market. Hydrogen is one of the fastest growing segments of our business. So, we are in. We are paying close attention to the investments of the majors in hydrogen. We do expect to expand in this area as well. Most of the independent distributor network in the US and even some of the majors are not as integrated into hydrogen and that leaves a bit of an opening on the wholesale supplier perspective giving us an opportunity."

Gas Innovations also reports the ethane market is in a robust condition.

"Ethane is continuing to grow," Madray told gasworld.

"Most ethane is used as an intermediate to make ethylene and that's why the large plants were built in the US. Ethane will be used to run turbines, for power generation, gas to liquid technology and many other applications. People are going to use it because it's so abundant and cheap, and it's going to get used. There's a lot of potential there."