

LNG helping rigs save money, become more efficient

For Patrick Hughes, CEO, Prairie Companies, conferences like the Williston Basin Petroleum Conference have



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become an energy indicator by marking the passing of time. Hughes recalls the Williston Basin Petroleum Conference in 2014 as a moment in time or milestone to when Prairie Companies started their liquid natural gas business, North Dakota LNG.

"For me these conferences make the passing of time," Hughes said. "We started that at the beginning of 2015."

Hughes has been traveling back and forth from the Bakken and Minneapolis since 2009, and since then has created four businesses under the umbrella of Prairie Companies. In addition to North Dakota LNG, Hughes oversees Prairie Field Services, Flatlands and Prairie Housing.

"Prairie Field Services moves a lot of oil around the Bakken and the Powder River (Basin). Flatland owns salt water disposal wells," Hughes said. "Prairie Housing, which was started to take care of our employees, but there seems to be a lot of housing now, so I don't think that is as much of a business now, but we do own some real estate. And then we have North Dakota LNG, which is at the tailgate of the Hess Processing plant up in Tioga."

Expanding into the Powder River Basin was a natural evolution for Hughes, and given the Bakken's activity as of late, diversity has helped Prairie Companies keep things moving. They are moving oil in conjunction with marketing customers and the producers themselves. Hughes said they have around 35 truck assets in the Powder River and about 60-70 employees.

Overall, Hughes is proud of his employees and how Prairie Companies has been able to manage the downturn's inactivity.

"I feel like we are doing really well and the work our employees are doing," Hughes said. "It's times like this, as you know Jason, you have to focus on the operation of your business. My philosophy is we are making money every day, we

just aren't getting paid yet."

While the employees are getting paid, investors are being patient while oil prices slowly climb back to an energy company's comfort level. Until then, Hughes and company continue to figure out ways to stretch one dollar into five.

According to Hughes, the Dakota LNG project was kicked off in the fall of 2014 right before the peak. From that time forward, ND LNG saw their own peak as high as diesel replacement on ten rigs.

"When you look at what powers a rig, they burn a tremendous amount of diesel fuel. We can put small pieces of technology into place so they are bi-fuel so they can burn some diesel fuel, but be primarily run on natural gas," Hughes said.

Bottom line, ND LNG has been one of those companies allowing oil companies to tighten the fiscal belt and become more efficient in energy extraction.

"Let's say a rig burns 1,000 gallons of diesel fuel a day; we can cut that by about 70%," Hughes said. "And we can make natural gas, which is cheaper, cleaner and, frankly, more efficient. We can displace that much diesel fuel."

Hughes isn't discouraged by the decrease in his customer base; he views the LNG business more as a marathon than a sprint.

"Today there are, call it 25 rigs, we are on four rigs," Hughes said. "So there are two ways to look at it - market share and volume. Clearly we wish there was more volume, but you know what? We are well positioned. Like I said, we have had to focus on the operation of the business so we have gotten much more efficient on how we deliver it."

Hughes doesn't see much in the LNG export market either.

"All of our products (LNG) are used locally," Hughes said. "In theory we could export the LNG, but moving that product it would really need to be by rail and the industry is not doing that yet. So we are using all the products locally and we've met with a lot of success."

As everyone is looking forward to rig counts moving up in the field, Hughes is fielding calls and traveling to meetings as interest in LNG continues to become more popular in the shale plays.

"One of the things I didn't realize about LNG is it is a good leading indicator," Hughes said. "I can tell you is people are kicking tires on fuel contracts. Don't be surprised to see a few more rigs standing up in the near future."

When asked about whether ND LNG will transition into the transportation market, Hughes said that may be an option one day, but saving money on rigs is their primary customer base.

"We view transportation as an optionality market. Meaning it is not going to be our base load, but we think there is upside there. To speak specifically about it, this is a great place to do it because people come home to the same yard every night."

Much like the nation's largest trucking company, Swift Transportation, Prairie Companies has hit roadblocks looking at converting their trucks to LNG. In fact Jerry Moyes, CEO, Swift Transportation believed 10% of his 10,000 trucks would be LNG by end of 2015, but didn't even hit 1%. The issue is power and size.

"The issue with it is we need 15 liter engines and they don't have one yet," Hughes said. "And the 12 liter engines for the loads we are hauling, I mean our company owns 70 trucks, we would love to be using natural gas but we need 15 liter engines. Cummins Westport had one in the pipeline, but they pushed it off for a while but I think we will see it in the coming years."

Like Moyes, Hughes is being patient and sees a day where a 15-liter engine will have enough power and save the transportation industry money.

"It's going to take some time to correct, but we are in it for the long haul and as I said we are not totally counting on the transportation market, but we see it as something positive in the future," Hughes said.

Big picture, Hughes said if someone is counting on using natural gas they really have to look at it as a discount to current fuels, i.e. diesel.

"When they converge it is hard to make money. And that's the situation we are in right now," Hughes said. "But as it starts to widen back out I think you are going to see a resurgence in natural gas."

Like many in the Bakken, Hughes had to ponder how to tackle the uncertainty of 2016. Not knowing how long the downturn would last and four com-



Courtesy of North Dakota LNG

panies to operate, he had a moment of clarity last holiday season.

"I woke up prior to Christmas and made a decision that we needed to make sure we had the infrastructure, the liquidity and the ability to stay in business for two years at the current levels," Hughes said. "If you think back to December-January, we are talking \$30-\$35 oil. We've already seen a dramatic improvement."

Right now, Hughes is focused on selling out the production of their ND LNG inventory. Hughes added that although they do a lot of value-added services, the reality of it is they are molecules. Energy molecules. Which means at the end of the day, it is a commodity.

"I've come to the conclusion that when you are commodity business, you have to participate in bad markets and you get to participate in good markets," Hughes said. "And you know what? This is not a good market and we are going to participate. And when it changes, we are going to profit from it."

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