

NGLs: Not Just a By-Product; Too Much of a Good Thing?

As natural gas producers continue to turn their efforts to high-Btu gas shale plays, it remains to be seen whether the resulting production growth of natural gas liquids (NGL) can be accommodated by existing and planned processing and fractionation capacity, not to mention demand from the petrochemical industry.

Rusty Braziel, a managing director at Bentek Energy LLC, told attendees at his firm's Benposium in Houston that NGL production will grow to test the upper limits of U.S. fractionation capacity as well as demand from the petrochemical industry, which accounts for the lion's share of NGL demand. The industry could see ethane rejection - when the price of the commodity drops below its equivalent Btu value in the gas stream, he noted.

The producer interest in liquids-rich plays is obvious in this era of low gas prices. "There is absolutely no doubt...when you can add 300 to 500 to 600 bbl of NGLs or oil to an Mcf of gas, that's like selling that gas for \$8/Mcf at the wellhead," said Crestwood Midstream Partners CEO Robert Phillips.

If Braziel's outlook sounds pessimistic, Benposium audience members were even more skeptical of the ability of infrastructure and markets to absorb the NGL yield from producer enthusiasm for liquids-rich plays.

Responding to an interactive poll, 63% of the audience said the market will need more fractionation capacity than what currently exists combined with the announced expansions. Assuming the announced expansions are completed, 20% of the audience said it thought that would take care of demand.

Asked whether there will be enough olefin cracker capacity to absorb increasing ethane production, 49% said, "No. Ethane will be in surplus supply and producers will see frequent ethane rejection." However, 33% said there would be enough capacity assuming petrochemical interests "invest in significant expansions." Only 7% said enough capacity exists today.

Further, 53% of the audience said the gas producer shift to higher-Btu plays "will become so prevalent as to depress prices in the NGL markets." About 25% predicted that producer interest in higher-Btu plays will accelerate "as current plays prove out." Only 8% said they expected the shift to liquids-rich plays to diminish as natural gas prices increase.

The flurry of activity around NGLs -- several infrastructure projects have been announced for the Marcellus and Eagle Ford shales, for instance (see *Daily GPI*, [June 3](#); [May 28](#); [May 10](#); [April 28](#)) -- is nothing new, according to Phillips.

"Those of us who have been in the NGL business have been observing the growth of the NGL infrastructure and the NGL supply and the NGL demand for years now," he told conference attendees. "We don't have a problem today. Three or four years ago we had a real problem. When there was only 700,000 b/d of ethane demand from the petchem market and we were building 20-25 Bcf/d of new processing plants in the Barnett [Shale], in the Rockies, in Canada, in South Texas, and we were clearly building excess supply against a limited demand from the petrochemical sector. We had a problem then."

Despite the perception of an oversupply threat held by some, today's NGL market is "reasonably in balance," Phillips said. He said markets are consuming about 820,000 b/d of ethane currently, an all-time high. He attributed this to economic recovery in the plastics industry as well as significant infrastructure spending in the petrochemical industry to accommodate ethane "to get ready for this onslaught of cheap ethane prices because natural gas prices are low. That's the way the market is supposed to work."

Phillips said he knows of projects being considered that could take ethane demand above 900,000 b/d. "We don't know that that's doable or sustainable."

"On the propane side we're actually exporting anywhere from 125,000 to 150,000 b/d of propane and mixed butanes when the market demand is there in Asia and Europe. And it frankly has been for most of the last couple of years. So the ethane and propane markets are very much in balance."

Phillips said it is unlikely that the limits of fractionation capacity will be tested as capacity expansions are in the works. "Everybody that has a frac[tionator] out there is expanding it to the extent that it's engineering-possible to do that. It's not an economic issue right now because fractionators are getting paid two and a half to three times more than they were for fractionating product just a couple years ago. We've gone from one and a half to two cents plus fuel all the way up to five to seven cents per gallon plus fuel."

"There's a significant amount of profit potential there. The market will build the fractionation capacity to handle the new NGL supply that comes on market," he added.