GLOBAL FACTORS MAKING A MAJOR IMPACT ON U.S. PROPANE SUPPLY

With prices surging & exports increasing, American inventory is taking a hit

BY TRAVIS DUNHAM

In today's global economy, everything is connected. Propane is no exception. As supply and demand try to get back to normal after the turbulence of the last 18 months, it appears there could be some challenges ahead.

Some parts of the world are seeing significant shortfalls with energy supply. At the same time, the global economy is requiring more propane to fuel the surging petrochemical market. Propane supply has been sluggish when it comes to returning to pre-pandemic levels for a number of reasons.

As domestic inventories have struggled to build this summer, we are seeing propane prices rise to levels we have not experienced since the Polar Vortex of 2014. This is setting the stage for a volatile year for pricing.

Exports Are Increasing, Even as Prices Continue to Climb

By now, it is no secret that exports are driving our domestic propane market. To those who are not familiar, propane is exported from several different ports within the United States and Canada to different parts of the world, with Asia receiving a large amount. As this issue goes to print, the export arbitrage opportunity remains open to the Far East, meaning it is cost-effective to export propane to Asia even with the high prices we are experiencing domestically.

According to the U.S. Energy Information Administration, over the past 12 months, we have averaged 1.2 million barrels per day (b/d) in exports. This is up from the 1.1 million b/d we averaged the prior 12-month period. The U.S. also currently has excess export capacity, meaning we can export more volume than is currently being exported.

Since the start of the Shale Revolution, domestic production has outpaced export infrastructure. Until now, this has allowed the U.S. to maintain a healthy inventory level, even as demand has continued to increase abroad.

China, Other Countries See Frenzy of Activity

New demand is continuing to come online, especially in China. As the Chinese government tries to transition from importing most of their propylene to producing it, propane dehydrogenation plant (PDH) construction has boomed.

At the beginning of 2021, there were 30 PDH plants either being constructed or planned for the coming years in China. This, coupled with Chinese liquified petroleum gas (LPG) crackers that started increasing their operating rates last year, will increase the demand for propane substantially.

Some industry forecasts show that this new demand will add 120,000 b/d by the end of 2022. Due to the quality of propane produced in China, most of the propane needed to fuel these facilities will be imported.

In addition, China just announced state-owned energy companies have been ordered to ensure — at all costs — that there are adequate fuel supplies for the approaching cold weather. Other nations are taking a similar approach as they find themselves in short supply just before winter. Natural gas prices in Europe are up more than 500% as the government scrambles to find enough fuel for winter.

Central governments across Eastern and Western Europe are adding to the anxious market sentiment. As countries realize they are facing a shortage of energy to heat homes and power manufacturing this winter, there has been a frenzy of activity to purchase the needed fuel.

Canada is also experiencing significant changes to its propane market. A propane dehydrogenation (PDH) plant is scheduled to begin operation there early next year, and that is on top of the second export terminal that began exporting propane off the Western coast earlier this year. These changes are expected to limit the amount of Canadian rail the Midwest has enjoyed since the Cochin reversal.

Don't Ignore the Influence of OPEC+

Global propane supply has been slow to rebound. OPEC+ committed to record oil production cuts in April of 2020, roughly 10% of the world's oil production at the time. Shortly after this, much attention was given to oil prices going negative for the first and only time in history. A ripple effect from this decision was that OPEC propane production also decreased.

According to OPEC Monthly Oil Market Report, 2020 and 2021 propane exports have been hovering around 1.3 million b/d. This is down from 1.42 in 2019 and 1.44 in 2018. OPEC+ is bringing back oil production of 400,000 b/d each month with the goal of getting back to a pre-cut production level in 2022.

Meanwhile, domestic propane production has not been able to make up the shortfall. The U.S. has averaged 2.2 million b/d over the trailing 12 months, which is only a 100,000-barrel increase from the previous year.

It is also important to note that the U.S. saw production fall significantly during February 2021, when Texas experienced freezing temperatures for multiple days.

Expect Less Available Inventory This Winter

With October in the rearview mirror, the U.S. is closing in on winter demand. We will enter December with roughly 25% less inventory than last year. The supply and demand imbalance we are seeing abroad will continue to pressure our domestic inventory as the U.S. looks to be the swing supplier for many markets.

The bottom line? Be prepared for a bumpy ride over the coming winter months. World propane production will need to increase or demand will need to wane before we see U.S. inventory improve.

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