

# Tight helium supply likely to persist

Market will remain unsettled

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As we approach the end of 2018, it appears likely that the current period of supply shortage that has affected global helium markets for most of this year will likely continue through the end of 2019, if not longer.

The current period of tight helium supply, the third period of sustained shortage since 2006, can be traced back to the Saudi-led embargo of Qatar which caused a shutdown of approximately 30% of the world's helium production for several weeks in June of 2017. While Qatari helium production was only lost for a few weeks, it took several months for helium markets to recover and the major helium suppliers are still dealing with the embargo's impact on their logistics and supply chains.

When supply from Qatar was lost from the market, the helium refiners (Air Products, Keyes Helium, Linde & Praxair) immediately moved to ramp up production at the helium refining plants linked to the U.S. Bureau of Land Management's (BLM) Crude Helium Pipeline and Storage System. With the demand for crude helium feed gas quickly exceeding the deliverable

capacity of the BLM Pipeline, the BLM was forced to implement a formal allocation of crude helium feed gas to the helium refiners which has remained in place at varying levels ever since.

While helium markets appeared to recover from the effects of the Qatar Embargo by Q4 of 2017 and seemed to return to relative balance during the November 2017 through January 2018 period, shortages returned to the market in February 2018 and most observers of the market would say that helium has continually been in short supply since February.

In much the same way that economists argue over the start and end dates of recessions and economic expansions, it could be debated as to whether the current shortage dates back to the June 2017 announcement of the Qatar Embargo or February 2018, when helium markets most recently fell into deficit. One could certainly argue that the period of calm during the Winter of 2017/2018 was a pause in the shortage resulting from reduced seasonal demand and the shortage triggered by the Qatar Embargo never really came to an end.

Since February, there has been a

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succession of maintenance shutdowns and supply curtailments affecting some of the world's most important sources which has taken varying amounts of supply off the market. These events, when combined with the ongoing BLM allocations and renewed demand growth, have caused a sustained shortage that does not look like it is going to go away at any time in the near future.

It is important to note that the current shortage has not affected all suppliers and geographic markets equally. While some suppliers have been allocating supply to their customers continually since February, other suppliers have been able to fulfill their commitments without having to formally allocate supply.

Looking to the future, there are two obvious factors that can bring shortages to an end, increased supply or reduced

demand. While there are a handful of projects that could provide modest increments to supply during the next year, the next new project that would be large enough to “move the needle” on its own is the Qatar 3 project in Ras Laffan Industrial City, Qatar.

This project, which is expected to add about 425 MMscf per year to helium capacity, has been delayed due to the rupture of an underwater pipeline that was going to bring feed gas to the Barzan Gas Plant from the North Field.

The expected start-up of helium production is now expected to take place in 2020. Prior to that, there are a handful of smaller projects (or plant restarts) that could add a combined 300 - 400 MMCF per year of crude helium production in the US, including a BLM project to add compression that could temporarily increase the BLM's deliverable capacity.

While there has been a great deal of recent exploration activity in the south western United States, Saskatchewan



and Alberta, Canada and Tanzania, with a couple of exceptions (included above), meaningful production is not expected before 2020.

While underlying demand for helium is believed to be growing at modest rates, demand growth could be slowed (or reversed) if helium prices spike due to tight supply or in reaction to the recent BLM Auction and Conservation Sale which has unsettled helium markets.

It is believed that as much as 10% of global helium demand was permanently

lost during the 2011 – 2013 shortage through substitution, increased recycling and more efficient use of helium. While the low hanging fruit for recycling and substitution was probably picked during 2011 – 2013, a price spike would undoubtedly have some negative impact on demand.

Summing all of this up, the current shortage could ease somewhat if the major helium sources are able to minimize maintenance shutdowns and the potential new sources of supply enter the market as planned. But the balance between supply and demand is likely to remain tenuous and the period of tight supply is unlikely to come to a pronounced end before Qatar 3 enters the market.

By 2021, when the first of three 700 MMCF liquefiers from Gazprom's huge Amur Project is expected to begin production and another Russian project owned by Irkutsk Oil Corporation adds an estimated 266 MMCF to supply, market concerns may shift from shortage to oversupply. 

#### ABOUT THE AUTHOR

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