

Analysis: China's refineries expect to consume more feedstock naphtha, LPG

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China's refineries are expected to consume more feedstock naphtha and LPG with more secondary processing units coming on stream in the future, according to market sources.

China's naphtha and LPG output in November fell 1.5% and 1.4% year on year to 2.75 million mt and 3.13 million mt, respectively, despite an 8% rise in crude throughput in the month, according to the most recent data from the National Bureau of Statistics.

The naphtha and LPG output estimates published by the NBS do not contain volumes of feedstock naphtha and feedstock LPG in domestic refineries, market sources said.

"Many independent refineries started up their newly built reformers in the second half of 2017, which is expected have increased consumption of feedstock naphtha, and hence resulting in lower output of their naphtha product," a source in eastern China said.

Naphtha prices continued to rise in the past two months, supported by robust buying from the petrochemical sector.

About 4.8 million mt/year of reformer capacity was scheduled to come online in the second half of this year in Shandong, and 2 million mt/year more is under construction in the region, according to local information provider JLC.

This has generated, and will continue to generate, additional demand for naphtha as feedstock.

In the first 10 months of this year, naphtha demand rose 1.6% year on year to 987,000 b/d, according to Platt's calculations.

ALKYLATION UNITS CONSUME MORE LPG

On the other hand, more LPG is expected to be consumed by the refineries with more alkylation units on-line, market sources said.

LPG could be used to produce alkylation oil and MTBE, the key blending components to produce higher grade gasoline, such as National Phase 5 and Phase 6 gasolines, according to sources.

Sinopec's 10 million mt/year Shijiazhuang Petrochemical refinery in the northern Hebei province completed construction of its 200,000 mt/year sulfuric acid alkylation unit in September, which is expected to have been put into operation in the fourth quarter.

Additionally, Sinopec's 21 million mt/year Jinling Petrochemical refinery in eastern Jiangsu province started up the 600,000 mt/year isobutane unit in H2 2017. The unit is designed to process LPG from the refinery and produce isobutane as feedstock for its joint venture with Huntsman Corporation.

Furthermore, Sinopec plans to build alkylation units with total capacity of 3 million mt/year at 10 of its refineries over 2018-19, in order to meet the blending requirement for alkylation oil.

"With more demand for feedstock LPG in the domestic refineries, less LPG product will be sold to the market in the future," another source in southern China said.

In the first 10 months of 2017, LPG demand was 1.71 million b/d, up 10.3% year on year, Platts calculations showed.