Chinese LPG Imports Jumped 33% in April

Chinese LPG imports increased 33% in April from the previous month to 2.7 MMt, just under the all-time high of 2.8 MMt set in September 2022, according to customs data. Recovering PDH operating rates, new PDH plant startups, falling propane prices and higher US exports since March (that favored sending cargoes to the east rather than Europe) all played a role in pushing imports higher. Shiptracking and chartering data indicates May imports should be at an all-time high and June imports should be high as well. This is a shift in trends observed in 1Q when monthly imports were much lower at 2 MMt/m as PDH plants reduced operating rates due to poor margins.

Chinese LPG demand is expected to see robust growth in 2023 with the planned startup of 13 new PDH plants within the year, in addition to three plants that started in 2H 2022, increasing operating rates and consuming more propane. However, LPG demand in 1Q only grew by 3% to about 18.4 MMt due to lower PDH operating rates. Demand from the residential sector was also lower than expected due to mild weather. LPG imports in 1Q were less than 1% higher than a year ago, raising doubts if the rate of import growth will be in the double digits – as projected at the beginning of the year.

Additionally, the recovery in the Chinese economy following the withdrawal of strict zero-Covid policy has been unequal to a stronger recovery seen in the service sector. However, contraction in manufacturing and a struggling real-estate sector are risks to petrochemical demand.

Most market participants expect that improving economic growth in the second half of the year will result in higher LPG demand. Some positive economic data along with improving PDH operating rates and margins since April lend support to the positive outlook.

China's tourism industry and consumer spending showed strong activity in May around the Labor Day holiday.

PDH operating rates have gradually picked up with an average rate of 70% in May, compared with below 60% in March as several plants return from maintenance.

New PDH plants should also increase the requirement of propane imports in the coming months compared with 1Q.

Yanchang Zhongran started its 600,000-t/y PDH plant in Taixing Economic Development Zone, Jiangsu province in May. The PDH is expected to reach full operating rates within months and will rely on imported propane for feedstock requirements. In the past, a new PDH plant could take up to six months to ramp up production, but Chinese chemical producers now can ramp up production much faster with years of operational experience, while construction has also become streamlined.

Dongguan Juzhengyuan started its second PDH with 600,000 t/y capacity in Dongguan, Guangdong in April. Donghua Energy is expected to start a new PDH plant with 600,000 t/y capacity in Maoming, Guangdong province in late-June.

Earlier in February, Guangxi Huayi New Material Co., Ltd started its 750,000 t/y PDH in Qinzhou, Guangxi province. The company has bought at least four full propane cargoes since the start up.

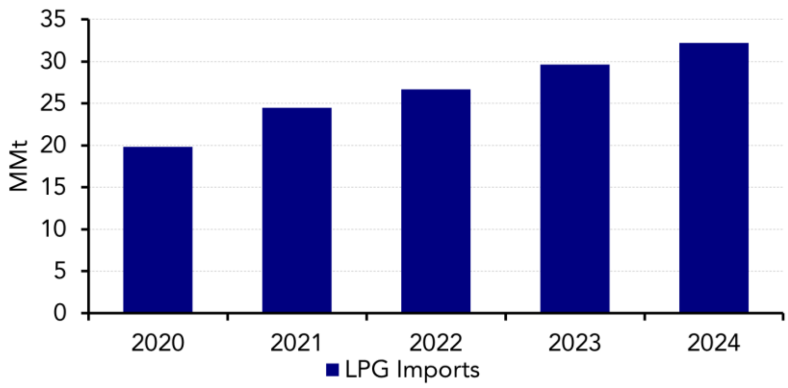
There are 10 more plants expected to start in 2023. (See the list of Recent and Upcoming PDH Plants in the June issue of LPG in World Markets)

Meanwhile, there is more than 4.5 MMt of polypropylene (PP) capacity to be added in 2023 and some of these projects are integrated with the new PDH plants. Domestic PP demand growth, however, is expected to be slow in 2023 and chemical companies are increasingly focusing on PP exports which could lead to lower-than-expected demand growth for propylene and feedstock propane.

There are a few ethylene crackers that could have also increased LPG cracking with wide propane-naphtha spreads in the Far East. Some of these crackers rely on imported LPG while the others will source from domestic supplies lifting overall demand. Wanhua Chemicals, Fujian Refining & Petrochemical, CNOOC-Shell JV, Sinopec, Sinochem, SP Chemicals, Bora LyondellBasell all have ethylene plants capable of cracking LPG. However, cheap Russian oil imports will limit the upside in LPG import demand from crackers despite current wide propane-naphtha spreads. LPG supplies from domestic refineries should also increase year-over-year.

In the Far East, propylene prices sank in recent weeks due to rising availability of supplies from Chinese PDH plants and regional crackers, coupled with sluggish demand in China. This will likely force some new plants that have not started to push back on commissioning. Existing plants could also dial back operating rates if margins remain depressed for long enough, also cutting propane demand.

Chinese LPG Import Outlook



Poten's base case projects Chinese LPG imports will increase 11% in 2023 to 29.6 MMt. The forecast assumes that out of the remaining nine new PDH plants scheduled to start this year some will be pushed back to next year instead.

There is a possibility of a high case where imports exceed 30 MMt, depending on improving propylene demand and the timely commissioning and ramp up of these new units.